Youngstown State University Bulletin
Graduate Edition
2008–2010

Effective August 2008
Youngstown, Ohio

Youngstown State University reserves the right to change without notice any statement in this bulletin concerning, but not limited to, rules, policies, tuition, fees, curricula, and courses.

Youngstown State University is committed to a campus environment that values all individuals and groups, and to nondiscrimination and equal opportunity for all persons without regard to sex, race, religion, color, age, national origin, sexual orientation, gender identity and/or expression, handicap/disability, or identification as a disabled and/or Vietnam Era veteran. The University is also committed to the principles of affirmative action and acts in accordance with state and federal laws.

Inquiries should be addressed to Youngstown State University's director of Equal Opportunity and Diversity, who is responsible for coordinating the University's programs for compliance. Inquiries can be initiated in writing or by calling (330) 941-3370.

Youngstown State University
Graduate Bulletin

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School of Graduate Studies and Research
Youngstown State University
One University Plaza
Youngstown, OH 44555

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School of Graduate Studies and Research

359 Tod Hall
Telephone: (330) 941-3091
Fax: (330) 941-1580
graduateschool@cc.ysu.edu
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Academic Calendar 2008–2009

Fall 2008

July 15	Tues.	Last day to apply for graduate admission
Aug. 22	Fri.	Open registration for current, reactivated former, transfer, transient, and graduate students ends
Aug. 25	Mon.	Fall term begins
Sept. 1	Mon.	University closed—legal holiday (Labor Day)
Sept. 2	Tues.	Last day to add courses
Sept. 12	Fri.	Last day to apply for fall graduation
Oct. 30	Thurs.	Last day to withdraw with a grade of W
Nov. 11	Tues.	University closed—legal holiday (Veteran's Day)
Nov. 27	Thurs.	University closed—legal holiday (Thanksgiving)
Nov. 28	Fri.	University closed—legal holiday (Columbus Day observed)
Dec. 1	Mon.	Thanksgiving academic break ends
Dec. 8	Mon.	Final examinations begin
		Deadline to submit theses to the School of Graduate Studies and Research
Dec. 14	Sun.	Fall term ends
		Fall commencement

Spring 2009

Nov. 17	Mon.	Open registration for current, reactivated former, transfer, transient, and graduate students begins
Dec. 15	Mon.	Last day to apply for graduate admission
Dec. 25	Thurs.	University closed—legal holiday (Christmas Day)
Dec. 26	Fri.	University closed—legal holiday (President's Day observed)
Jan. 1	Thurs.	University closed—legal holiday (New Year's Day)
Jan. 9	Fri.	Open registration for current, reactivated former, transfer, transient, and graduate students ends
Jan. 12	Mon.	Spring term begins
Jan. 19	Mon.	University closed—legal holiday (Martin Luther King Day)
Jan. 20	Tues.	Last day to add courses
Jan. 30	Fri.	Last day to apply for spring graduation
Mar. 9	Mon.	Spring break begins
Mar. 15	Sun.	Spring break ends
Mar. 26	Thurs.	Last day to withdraw with a grade of W
May 4	Mon.	Final examinations begin
		Deadline to submit theses to the School of Graduate Studies and Research
May 10	Sun.	Spring term ends
May 16	Sat.	Spring commencement

Summer 2009

Apr. 13	Mon.	Open registration for current, reactivated former, transient, and graduate students begins
Apr. 15	Wed.	Last day to apply for graduate admission
May 15	Fri.	Open registration for current, reactivated former, transient,

		and graduate students ends
May 18	Mon.	Full term and first six-week term begin
May 25	Mon.	University closed—legal holiday (Memorial Day)
May 26	Tues.	Last day to add courses for full term and first six-week term
June 5	Fri.	Last day to apply for summer graduation
June 11	Thurs.	Last day to withdraw with a grade of W for first six-week term
June 15	Mon.	Middle six-week term begins
June 22	Mon.	Last day to add courses for middle six-week term
June 28	Sun.	First six-week term ends (final examinations are given during the last scheduled class period)
June 29	Mon.	Second six-week term begins
July 3	Fri.	University closed—legal holiday (Independence Day)
July 6	Mon.	Last day to add courses for second six-week term Last day to withdraw with a grade of W for full term
July 9	Thurs.	Last day to withdraw with a grade of W for middle six-week term
July 23	Thurs.	Last day to withdraw with a grade of W for second six-week term
July 26	Sun.	Middle six-week term ends
Aug. 3	Mon.	Deadline to submit theses to the School of Graduate Studies and Research
Aug. 9	Sun.	Full term and second six-week term end (final examinations are given during the last scheduled class period)
Aug. 15	Sat.	Summer commencement

Fall 2009

July 15	Wed.	Last day to apply for graduate admission
Aug. 21	Fri.	Open registration for current, reactivated former, transfer, transient, and graduate students ends
Aug. 24	Mon.	Fall term begins
Aug. 31	Mon.	Last day to add courses
Sept. 7	Mon.	University closed—legal holiday (Labor Day)
Sept. 11	Fri.	Last day to apply for fall graduation
Oct. 29	Thurs.	Last day to withdraw with a grade of W
Nov. 11	Wed.	University closed—legal holiday (Veteran's Day)
Nov. 26	Thurs.	University closed—legal holiday (Thanksgiving Day)
Nov. 27	Fri.	University closed—legal holiday (Columbus Day observed)
Nov. 30	Mon.	Thanksgiving academic break ends
Dec. 7	Mon.	Final examinations begin Deadline to submit theses to the School of Graduate Studies and Research
Dec. 13	Sun.	Fall term ends Fall commencement

General Information

Designing Our Future in the 21st Century: The Centennial Strategic Plan of Youngstown State University

Mission Statement

Youngstown State University provides open access to high-quality education through a broad range of affordable certificate, associate, baccalaureate, and graduate programs.

The University is dedicated to

- outstanding teaching, scholarship, and service, and to forging connections among these three interactive components of its mission;
- fostering student-faculty relationships that enrich teaching and learning, develop scholarship, and encourage public service;
- promoting diversity and an understanding of global perspectives; and
- advancing the intellectual, cultural, and economic life of the state and region.

Defining Principles for the Strategic Planning Process

YSU's strategic plan represents a shared vision of what YSU seeks to become and specific strategies to achieve it. An open and continuous endeavor, the strategic planning process is designed to guide a dynamic University capable of responding in a timely fashion to new opportunities and changing internal and external circumstances. The plan reflects campus- and community-wide collaboration and discussion.

The Strategic Plan will

- represent YSU's commitment to provide all students open access to a high-quality education;
- state how YSU interacts with and responds to community needs and opportunities;
- guide development of annual action plans and budgets, connecting human and other resources to identified priorities and supporting initiatives;
- guide the University in identifying programs and activities that will be initiated, continued, and discontinued; and
- establish a vision for achieving identified priorities by YSU's centennial year in 2008.

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 of 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 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; and bring about the greater good of the collective whole—be it the University, the Mahoning Valley, the state, the region, or beyond.

Vision Statement

Youngstown State University will become a national model for student-centered comprehensive urban universities, transforming its students into successful professionals, scholars, citizens, and leaders.

Building upon its tradition of developing the body, mind, and spirit, YSU will provide a full range of services and amenities to meet the needs of residential, commuter, and offsite students.

In partnership with schools and the corporate, public, and nonprofit communities, YSU will promote diversity and excellence in teaching, research, and service to increase the educational attainment, economic prosperity, and environmental vitality of the region.

The University will be a center for intellectual and cultural activity and a catalyst for public engagement.

Priority Statements

Critical Issue 1: Enrollment/Retention. YSU will build enrollment strategically and manage it effectively.

Critical Issue 2: Programs/Teaching, Learning, and Research. YSU will promote excellence in teaching, learning, service, and research—and prepare students to undertake civic and leadership responsibilities—through programs and educational experiences that meet student and workforce needs.

Critical Issue 3: Financial Resources. YSU will manage resources efficiently and strategically, leverage them effectively, and develop additional resources to fulfill its mission.

Critical Issue 4: Image/Market. YSU will develop and communicate a positive, shared institutional identity and market its strengths and successes aggressively.

Critical Issue 5: Student Services/Alumni Relations. YSU will provide the range of student services necessary for a student-centered University to attract, support, retain, advance, and graduate students. YSU will also maintain ongoing and lifelong relationships with its alumni.

Critical Issue 6: Diversity. YSU will provide a climate of respect for all people. Its students, faculty, staff, and course content will increasingly reflect the diversity of the community, the nation, and the world.

Critical Issue 7: Technology. YSU will pursue an integrated approach in using technology to meet the academic, research, student-services, and administrative goals of the University.

Critical Issue 8: Community Engagement. YSU will undertake community partnerships to serve and address the cultural, intellectual, educational, social, and economic needs of the region.

Critical Issue 9: Human Resources Development. YSU will further develop a competent, motivated, diverse, and competitively paid workforce committed to carrying out the mission of the University.

Critical Issue 10: Facilities/University Neighborhood. YSU will develop and maintain a safe, attractive, convenient, and functional physical plant responsive to the present and future needs of students, staff, alumni, and the community. The University will work with the community to enhance the safety, aesthetics, and vitality of the campus periphery and surrounding neighborhood.

History

Youngstown State University is in downtown Youngstown, an industrial center in northeastern Ohio midway between Pittsburgh and Cleveland. YSU traces its origins to a college-level commercial law course offered in 1908 by the Young Men's Christian Association, followed by the establishment of a School of Law in 1910. The YMCA named its educational offerings the Youngstown Association School in 1915. From that point in history, the school continued to evolve into Youngstown State University.

1920 The State Board of Education empowered the YMCA to grant the Bachelor of Laws degree.
1921 The school changed its name to The Youngstown Institute of Technology. Its first liberal arts classes were offered in the evening.
1924 The State Board of Education approved the granting of a bachelor's degree in business and commerce.
1927 The School of Liberal Arts, offering daytime classes, was established.
1930 The Institute began to confer the Bachelor of Arts degree.
1931 The Institute changed its name to Youngstown College.
1934 Howard Jones became the first president of Youngstown College.
1937 The Board of Trustees officially incorporated the institution as Youngstown College.
1941 Dana's Musical Institute, founded in nearby Warren in 1869, became the College's Dana School of Music.
1944 YMCA trustees transferred control of the institution to members of the Corporation of Youngstown College.
1946 The Engineering Department, organized several years earlier, became the William Rayen School of Engineering.
1948 The Business Administration Department became the School of Business Administration.
1955 The Corporation of Youngstown College was rechartered as The Youngstown University.
1960 The Department of Education became the School of Education.
1967 The University joined the Ohio system of higher education and became Youngstown State University. A nine-member Board of Trustees was appointed by the Governor with concurrence by the Ohio Senate. As in the case of other state-assisted universities in the Ohio higher education system, the University is also responsible to the Ohio Board of Regents.
1968 The Graduate School and the College of Applied Science and Technology were established.
1972 YSU, with The University of Akron and Kent State University, formed a consortium to sponsor the Northeastern Ohio Universities College of Medicine.

1974 The College of Fine and Performing Arts was established.
1981 The School of Business Administration was renamed the Warren P. Williamson, Jr. School of Business Administration.
1993 The University underwent academic reorganization and constituted itself into the following units:

- The College of Arts and Sciences
- The College of Education
- The College of Engineering and Technology
- The College of Fine and Performing Arts
- The College of Health and Human Services
- The Warren P. Williamson, Jr. College of Business Administration
- The School of Graduate Studies
- The Northeastern Ohio Universities College of Medicine

2002 The School of Graduate Studies was renamed the School of Graduate Studies and Research and was given the responsibility for research at YSU.
2007 The College of Liberal Arts and Social Sciences (CLASS) and the College of Science, Technology, Engineering, and Mathematics (STEM) were established.

A coeducational institution, YSU had an enrollment of 300 students in 1930, which grew to 2,000 in the 1940s, tripled by the 1950s, reached 10,000 in the mid-sixties, and totaled more than 15,000 in 1986. As of fall 2007, undergraduate enrollment stood at 12,275 and graduate enrollment at 1,222.

Accreditation

Youngstown State University is accredited by the Higher Learning Commission and a member of the North Central Association. Please visit http://www.ncahlc.org/ or call (312) 263-0456 for additional information.

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

Assessment

YSU is committed to providing an effective assessment process that can ultimately support student learning, improve academic programs, and enable YSU to provide exemplary services to all constituents. To sustain the University's continuous improvement on all levels, the Offices of Assessment and General Education collaborate with each academic department in all six colleges to design and coordinate regular and ongoing assessment of student learning outcomes for each degree program and for the general education program. A systematic feedback loop also enables academic units to share information about student learning with students, faculty, and appropriate organizations. All information is shared in aggregate form only, and the confidentiality of individual students is safeguarded. If assessment information is shared beyond the internal efforts of program improvement or accreditation, departments abide by the appropriate Institutional Review Board guidelines at YSU.

Degrees Granted

YSU grants the degrees of Doctor of Education, Doctor of Physical Therapy, Master of Arts, Master of Business Administration, Master of Computing and Information Systems, Master of Fine Arts, Master of Health and Human Services, Master of Music, Master of Public Health, Master of Science, Master of Science in Education, Master of Science in Engineering, Master of Science in Nursing, Master of Social Work, Bachelor of Arts, Bachelor of Engineering, Bachelor of Fine

Arts, Bachelor of General Studies, Bachelor of Music, Bachelor of Science, Bachelor of Science in Applied Science, Bachelor of Science in Business Administration, Bachelor of Science in Education, Bachelor of Science in Nursing, Bachelor of Science in Respiratory Care, and Bachelor of Social Work. A broad selection of two-year programs leads to the degrees of Associate in Arts, Associate in Applied Science, Associate in Labor Studies, and Associate of Technical Study.

Equal Opportunity and Affirmation Action Policy

Youngstown State University is committed to a campus environment that values all individuals and groups, and to nondiscrimination and equal opportunity for all persons without regard to sex, race, religion, color, age, national origin, sexual orientation, gender identity and/or expression, handicap/disability, or identification as a disabled and/or Vietnam Era veteran. The University is also committed to the principles of affirmative action and acts in accordance with state and federal laws.

Although the ultimate responsibility for maintaining a viable and effective affirmative action program rests with the president of the University, the key role in its execution is delegated to the director of Equal Opportunity and Diversity, who periodically reviews the program, discusses grievances and charges of discrimination, if any, and makes recommendations toward the program's effectiveness.

The University uses all normal means of communication to make known its policies of equal opportunity and affirmative action.

The Campus

Campus Development

During its earlier years, the institution had a number of homes. Starting in the old Central YMCA building, it occupied various sites on Wick Avenue until the completion of Jones Hall in 1931. Additional buildings have been constructed and nearby properties converted to University use, so that today the campus extends through most of an area five blocks long and four blocks wide, covering 150 acres. The University also has 16.3 acres in Liberty Township and 118.4 acres in Hartford Township.

All-Sports Complex, Stambaugh Stadium

Located on an 18-acre site adjacent to Beeghly Physical Education Center, the All-Sports Complex includes Arnold D. Stambaugh Stadium and Beede Field, an artificial turf sports field for football and soccer, with seating for more than 20,630 spectators; officials' dressing rooms; varsity athletic offices; classrooms, racquetball courts, gymnasiums, weight rooms, and facilities for various other health and physical education activities.

Atop the stadium and overlooking the city of Youngstown is the DeBartolo Stadium Club. The club provides meeting and dinner/party seating for 220 people and is available to campus and community organizations or individuals. For reservation information, please call the Office of Events Management at (330) 941-1585.

The complex also includes an all-weather 400-meter track with 1500 bleacher seats; facilities for all other track and field events; outdoor basketball courts; and ten hard-surfaced and lighted tennis courts.

Other Sports Facilities. Currently, in addition to Beeghly Center and the All-Sports Complex, the physical education, athletic, and intramural programs use the athletic fields and well-equipped sports centers in Mill Creek Park; Evans Field, Pemberton Park, and Cafaro Field for baseball; Harrison Field in Smoky Hollow for softball; and for other activities, the A Plus Family

Bowling on Mahoning Avenue, and the Henry Stambaugh Golf Course, as well as the par 3 golf course in Mill Creek Park.

Andrews Recreation and Wellness Center

YSU's newest addition to campus life is the state-of-the-art Andrews Recreation and Wellness Center. The 70,000 sq. ft. facility includes a 12,000 sq. ft. cardio fitness and free weight area, offering over 70 pieces of cardio fitness equipment, including treadmills, ellipticals, a variety of cycles, steppers, and rowers, as well as a ten-station cardio theater, which accommodates 40 machines. The free weight area holds 24 selectorized weight-training machines and a combination of 40 plate-loaded and free weight stations.

In addition, the Center holds an 18,500 sq. ft. sports forum, which includes four multipurpose courts with intended use for basketball, volleyball, badminton, and a host of other activities. The facility also boasts a 3,200 sq. ft. aerobics and multipurpose gymnasium designed to accommodate classes taught by certified instructors, specifically to condition, sculpt, and tone. A meditation center provides a quiet space for students, faculty, and staff to reflect, relax, and contemplate.

The Center also offers a wellness component designed to promote healthy lifestyle choices through comprehensive programming in the areas of fitness, nutrition, and mental and spiritual health.

Also housed in YSU's new student recreation and wellness center is a climbing wall, towering at 53 ft., making it one of the tallest climbing walls in the state of Ohio. Activities for this area include climbing, rappelling, and bouldering. Our professionally trained staff provides a short, mandatory class to prepare patrons for climbing.

Only a currently validated YSU ID is required for entrance to the new Andrews Student Recreation and Wellness Center. All programs and activities offered in the Center are available to the YSU student population at no additional cost. The hours of operation are Monday through Thursday, 6:30 a.m. to 10:30 p.m., Friday 6:30 a.m. to 9:00 p.m., and Saturday and Sunday, 10:00 a.m. to 6:00 p.m.

Beeghly Hall

The four-story, 96,600 sq. ft. Beeghly Hall opened in the fall of 1998 to serve as the College of Education building.

On the main floor are the main north/south entrance and access, dean's suite, Wilcox Curriculum Resource Center, Child Study Center, and the 400-seat multipurpose and multimedia McKay Auditorium.

The new Beeghly College of Education building includes the following:

- An interactive distance-learning classroom
- A classroom of the future
- The Center for Teaching and Learning Technology
- Macintosh- and Windows-based computer labs
- The Curriculum Resource Center
- A counseling clinic
- A child-study center
- Testing Office

Beeghly Physical Education Center

In this building, first occupied in 1972, are the Department of Human Performance and Exercise Science and the Olympic sports offices and facilities. In addition to a gymnasium with seating

for over 6,900 spectators and an Olympic-size swimming pool, it contains faculty offices; 12 classrooms, including laboratories for research and kinesiology; physical education for handicapped students; a dance studio; a rifle range; and a fitness center.

Bliss Hall

Housing the College of Fine and Performing Arts, Bliss Hall, completed in 1977, was named in memory of William E. Bliss, a prominent area industrialist. Bliss Hall's facilities include the 390-fixed-seat Ford Theater, named for the Ford family; the 248-seat Bliss Recital Hall; an experimental theatre with flexible seating for up to 200; complete costume and scenery shops; theater rehearsal rooms; 80 music practice rooms equipped with studio or grand pianos; a Schlicker performance organ and two Flentrop practice organs; 30 faculty office-studios that can be used for music instruction; a band/orchestra room with a library; a photography studio with 32 enlargers; a metals studio; fully equipped drawing, printmaking, sculpture, and painting studios; a MIDI/graphics computer lab; a video editing suite; a Mac-based graphic design laboratory with dye-sublimation printer; ceramics studios with gas, electric, raku, and salt kilns; a complete shop with heavy equipment for working in three-dimensional design; art faculty office-studios; a student lounge/art gallery; and conference and seminar rooms. Bliss Hall has recently seen major renovations to administrative offices. A new jazz rehearsal room, video production studios, and upgrades to art and sculpture areas were part of the same renovation project. The following facilities opened in fall 2005: a painting and sculpture addition with a foundry and metal fabrication, woodshop, sculpture and painting laboratories, offices, and a 3D visualization laboratory and an exterior work court.

Cushwa Hall

Opened in 1976, this structure houses the Bitonte College of Health and Human Services, as well as Media and Academic Computing, WYSU-FM, Peace Officer Training Academy, and the Department of Mathematics and Statistics. One of the largest buildings on campus, it contains 22 classrooms, 44 laboratories, 176 offices, and two lecture halls.

DeBartolo Hall

First occupied in 1978, DeBartolo Hall houses the departments of Economics, English, Philosophy and Religious Studies, Political and Social Science, Psychology, Sociology and Anthropology, and the Africana studies and women's programs. Also housed in DeBartolo Hall is the Center for Peace and Conflict Studies. In this six-story structure are over 164 offices for faculty and staff, five student lounges and study areas, 15 classrooms, 14 laboratories, a computer terminal room, a 200-seat lecture hall with stage, and special varied laboratories for the Department of Psychology.

Fedor Hall

Fedor Hall is located on the west side of Elm Street. It was constructed in 1949 and purchased from the Youngstown Board of Education in September 1965. A $1,100,000 renovation project was completed in 1992. It houses the student newspaper, the Wee Care Day Care Center, the Rich Autism Center, Youngstown Early College, and general-purpose classrooms.

Historic Buildings

Listed in the National Register of Historic Places in recognition of their representing important eras in Youngstown's development, Alumni House and Coffelt Hall 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.

Alumni House. The Office of Alumni Relations is housed in the oldest building on campus. Alumni House was built in 1893 and was originally the home of the Myron Israel Arms Family. It is located on the corner of Wick Avenue and University Plaza. The YSU Foundation occupies the second floor.

Coffelt Hall. This two-story brick building, located on the north side of University Plaza, was constructed in 1933, remodeled in 1978, and renovated in 1986.

Jones Hall

One of the oldest buildings on 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 devoted friend and trustee of the University. In 1978 the interior was completely remodeled to accommodate administrative offices. Jones Hall currently houses the Offices of Career and Counseling Services, Payroll, Accounting, Human Resources, Budget, Enrollment Management, Records, and the Center for International Studies and Programs.

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 food service programs, lounges, 19 conference and multipurpose rooms, bank, ATM machine, graphic services, candy counter, copy services, stage and entertainment areas, a billiards recreation area, a travel agency, fax service, campus locker rentals, the University's lost and found, and the Center's reservations and conference services office. Kilcawley Center also includes the YSU Bookstore, a computer/word processing access center, U.S. mail drop, stamp machines, campus information center, catering offices, and the Center's staff offices. Student organization mailboxes, and Offices of Student Life, Student Government, and student organizations are located in Kilcawley, as is the Center for Student Progress.

William F. Maag, Jr. Library

The University's six-story William F. Maag, Jr. Library, completed in 1976, provides an attractive, comfortable, and technologically sophisticated environment for study and research. A member of the OhioLINK consortium that coordinates access to the collections of all of Ohio's public and private higher education institutions, Maag Library provides access to a combined collection of over 40 million items with nearly a million items on-site, a world-class collection of scholarly journals in electronic format, and a wide array of secondary sources. Located in the basement of Maag are classrooms and offices for the Writing Center, the Reading and Study Skills Center, the English Language Institute, and the Center for Communication Excellence.

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 sq. ft. of space and is

located to the west of the Wick Avenue Parking Deck, with its main access and entry by the pedestrian walkway over Wick Avenue. The building contains five classrooms, ten specialized computerized laboratories, and 23 faculty offices. The Student Accounts office, the Office of Financial Aid and Scholarships, and the Enrollment Center are located on the second floor. The Department of Computer and Information Systems is located on the third floor. The fourth floor houses the University's main computer facilities and Computer Center staff.

John J. McDonough Museum of Art

The John J. McDonough Museum of Art, located on Wick Avenue between Bliss Hall and Meshel Hall, opened in fall 1991. The 14,000 sq. ft. multilevel building exhibits faculty and student artwork that in the past has been displayed in the Bliss Art Gallery and the Kilcawley Center Art Gallery. It also exhibits works by artists from other universities as well as local and regional artists, and serves the academic program of the Art Department with shows and competitive exhibits. The museum has the following spaces and functions: installation gallery, traditional galleries, art lecture hall, work/preparation area, storage (vault area), public lobby and restrooms, offices, loading dock and receiving area, and the necessary mechanical and electrical equipment spaces.

Moser Hall

Moser Hall, a five-level structure completed in 1967, houses the William Rayen College of Engineering and Technology and the Department of Geology and Environmental Sciences. In addition to 47 laboratories, ten classrooms, two research and development rooms, seven conference rooms, and 77 offices, it contains the 200-seat state-of-the-art Schwebel Auditorium. A $6,873,000 renovation project was completed in fall 1996. Moser Hall also houses the Clarence R. Smith Mineral Museum.

Phelps Building

The Phelps Building, located on the corner of Lincoln Avenue and Phelps Street on campus, houses the Department of Geography and the Public Service Institute, including the Center for Urban Studies and the Center for Human Resources Development.

Service Buildings

The following buildings at various locations on campus house specific services.

127 Lincoln. 127 Lincoln, a two-story building, houses the Mailroom.

Central Utility Plant. The Central Utility Plant is located south of a 400-meter track on the north side of campus. The plant is capable of producing steam and chilled water for University needs and is distributed through a system of underground tunnels and direct burial utility lines.

Materials Management Building. The Materials Management Building, located on the corner of Fifth and Rayen Avenues, houses University Purchasing.

Salata Complex. The Salata Complex, located on Rayen Avenue and Wood Street, houses University planning and construction, maintenance, administration staff, grounds department staff, personnel and equipment, central receiving, key control, motor pool, central stores, various repair shops, and printing services.

Smith Hall

A medical building purchased in 1992 located at 318 Fifth Avenue currently houses the Center for Working Class Studies, American studies program, Parking, Janitorial Services, and Telephone Services.

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 Undergraduate 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 those of the President, Provost, Vice President for Administration, Vice President for Student Affairs, Development and Public Relations, the School of Graduate Studies and Research, Grants and Sponsored Programs, Associate Degree and Tech Prep Programs, Institutional Research, Assessment, University Marketing and Communications, the YSU Credit Union; Office of Equal Opportunity and Diversity; and the Board of Trustees' meeting room.

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 48 laboratories, including a planetarium and a greenhouse, nine classrooms, 60 academic offices, 53 faculty-research rooms, and a conference/seminar room.

Williamson Hall

Williamson Hall houses the Williamson College of Business Administration offices: Office of the Dean, Undergraduate Advising Center and Professional Practice Program, M.B.A. Program, and the Department of Accounting and Finance, the Department of Management, and the Department of Marketing.

In addition, the building houses 16 classrooms, including the Alan W. Cope Professional Development Suite—a multimedia classroom—a conference room, and the Cafaro Executive Development Suite. All Williamson College of Business Administration student organizations have office space in the building, and students are provided with two study lounges, three networked computer labs, and several resource rooms. Williamson Hall is also home to the Center for Nonprofit Leadership, the Williamson Center for International Business, the Nathan and Frances Monus Entrepreneurship Center, and the Service Corps of Retired Executives.

A new 106,000 square foot business school is under construction and will open in Fall 2010.

Student Support Services

Academic Support Services

William F. Maag, Jr. Library. The six-story William F. Maag, Jr. Library is an attractive, comfortable, and technologically advanced environment for study and research located at the center of the Youngstown State University campus. Maag Library provides comprehensive information services and 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 85 hours per week during the term. Virtual access to library services, to the online catalog, and to direct digital information resources is available via MaagNet, http://www.maag.ysu.edu/, 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 statewide 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 many disciplines and direct access to the full text of over 5,700 scholarly journals. OhioLINK is currently working to provide direct Internet access to a variety of audio, visual, and primary-source materials.

Maag Library itself offers instructional and research materials in the form of books, periodicals, microforms, CD-ROMs, and sound recordings to a combined catalog of over 1.5 million records. These holdings number close to 300,000 government documents, 700,000 bound volumes, and 800,000 microforms. Periodicals, microforms, and microreaders are housed on the first floor. A copy management center allows 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 is home to over 150 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. The Library is wireless enabled with access to the general Internet for faculty, staff, and registered students. Moreover, laptop computers with wireless network connections can be checked out for use anywhere in the Library.

Located on the fifth floor of Maag, the Archives and Special Collections unit is not only collecting and preserving 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 Multimedia Center on the third floor of Maag 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 College of Education is also a vibrant part of Maag Library, offering curriculum materials and support for students in education.

Computer Center. The Computer Center is a centralized computational facility housing the Computer Services and Network & Telephone Services Departments. The facility, which provides decentralized access to faculty, staff, and students, occupies the fourth floor of Meshel Hall. Customer support services personnel are located at the Tech Desk, housed on the fourth floor of Maag Library. Serving both academic and administrative needs, the Computer Center operates multiple IBM Power 570 transaction servers supporting the SunGuard Banner software suite. This environment provides online access to a high-performance RAID-5 disk array, providing a data storage capacity in excess of 4.2 terabytes. Servicing Enterprise informational needs, the Banner solution utilizes an Oracle 10g Database residing on the IBM p570s. For those students, faculty, and staff needing UNIX shell services, a Sun server running Solaris 2.8 is available on the network. More than 4,000 online devices, including personal computers, printers, and projection systems, are located on campus. Virtual Private Network (VPN) services are provided for remote access off campus over the Internet.

A network backbone running at 1 Gbps through campus connects workstations, personal computers, Maag Library's computer system, and the enterprise application servers to the Internet. All campus buildings are linked to a gigabit Ethernet optical fiber network backbone consisting of five fully meshed high-speed core switches. Ethernet speeds up to 100Mbps are available to the desktop using Category 5e copper cabling.

Over 10,000 network locations have been wired across the campus. YSU Network access is available at each of these locations, including all residence hall rooms. Every classroom has at least one YSU Network connection, while select classrooms are equipped with fiber optic access to facilitate broadcast-quality, full-motion video distribution and distance-learning opportunities. The campus currently offers wireless access to the YSU Network from over 90 locations across campus. Plans to extend wireless access to more than 180 locations throughout the campus are also underway.

Campus email and calendaring are provided through the MyYSU Luminis Portal. The MyYSU mail system delivers electronic mail services to all students, faculty, and staff. Access is maintained through the University's portal. (Standard e-mail clients are also supported using the POP3 and IMAP protocols.)

Personal computers are available on campus for instruction and research. Currently, more than 55 labs are available within the 14 campus buildings and Metropolitan College sites. The YSU Network provides students, faculty, and staff with access to both internal campus resources, such as Maag Library and the MyYSU portal, in addition to connectivity to the Ohio Super Computer Center's research network and the Internet. The YSU Network supports an interface of 155 Mbps to the OSCnet, which provides connectivity to other Intra-Ohio organizations, the Internet2 research network, and traditional commodity internet. The Electronic Campus provides faculty, staff, and students the opportunity to use global and local computer networks and current generation computer hardware and software via a high-speed network infrastructure.

Center for International Studies and Programs (CISP). The Center for International Studies and Programs (CSIP) is an integral part of the Division of Academic Affairs and is responsible for coordinating the international dimensions of the university, including international student recruitment, admission, orientation, and immigration services; study abroad programs; obtaining employment authorization for international faculty; and English as a Second Language services through the English Language Institute (ELI).

The CISP works in partnership with the academic colleges and departments in developing international initiatives, represents the academic affairs division on international matters within the university, and represents Youngstown State University on international matters to state and federal agencies as well as to other organizations.

The English Language Institute (ELI). The English Language Institute (ELI) at YSU was established through the Center for International Studies and Programs and the Department of English to provide intensive study of English to speakers of other languages. It offers pre-college, non-credit courses designed to teach English to students who already have some knowledge of English. In addition, the ELI provides an orientation to college life and culture in the U.S. Courses are available both to international students and immigrants. The ELI also offers specially tailored courses to groups by contract. The ELI welcomes all students, as well as professionals, who wish to improve their English language proficiency. 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 website at www.ysu.edu/EngIns/.

Metropolitan College. Metropolitan College provides a gateway to the educational resources of the University for adults and nontraditional students, and works to form partnerships with regional workplaces by creating and delivering programs and services that meet when and where students need them—days, evenings, weekends, on and off campus, in a traditional classroom or out, and by using distance learning technologies to supplement other learning experiences.

YSU Metropolitan College offers degree and nondegree classes, online instruction, conferences, and seminars, all specifically designed and planned to meet the varied needs of adults.

The Metro Credit Education Outreach department partners with the academic colleges to deliver YSU programs off-site; for example, Metro Credit supports the needs of elementary and secondary school teachers and administrators by offering M.S. and doctoral degree programs in Education in distant counties and school districts. Any school, district, or educational service center can contact Metro Credit for information about starting a cohort graduate program at their location. Metro Credit also offers "College in High School," a program that allows high school students to earn college credits at their high school. "College at Work" brings coursework and degree programs on-site to businesses that want to increase the educational level of the workforce. Southwoods Commons in Boardman offers another off-campus site for credit courses that is convenient for many working people.

The Office of University Outreach, under the Metropolitan College, develops and administers courses and programs outside of traditional degree programs through Continuing Education, Edutravel, and the Center for Creative Retirement. Through both credit and noncredit course offerings at a variety of convenient times and locations, it makes academic programs, along with administrative and support services, available to nontraditional students and regional workplaces. Through University Outreach, YSU attempts to make the lifelong process of education possible for the adult with family and work obligations.

The Continuing Education noncredit programs offer area residents a wide variety of adult study or lifelong-learning courses and seminars to meet the needs for a changing society, for professional updating and upgrading, for midcareer adjustments, and for lifestyle changes.

The Center for Creative Retirement provides area seniors with several opportunities to pursue their educational objectives. The College for the Over Sixty is a state-mandated program providing for the enrollment of Ohioans 60 years of age or older who have been state residents for the preceding 12 months in undergraduate credit classes on a space-available, noncredit basis. Seniors who meet the income requirements may earn credit toward an undergraduate degree through the College for the Over Sixty. Through the YSU-ILR, an affiliate of the Elderhostel Institute Network, seniors have the opportunity to develop, instruct, and participate in educational programs and social activities designed for this membership-based organization. During the summer, the YSU Elderhostel provides seniors with weeklong residential learning and social experiences through Elderhostel-approved offerings.

Further information may be obtained from the Metropolitan College, Southwoods Commons (Boardman) at (330) 941-2465.

Student Support Services

Career Services. The Office of Career and Counseling Services provides comprehensive career planning/exploration and job search services to students and alumni in all areas of career decision making and the professional job search. Students are encouraged to become familiar with Career and Counseling Services early in their graduate course of study in order to fully utilize and benefit from available services and resources.

Services and resources available to graduate students include individual career and job search consultation; computerized, interactive career planning software for assistance with individual academic/career planning; job postings from hundreds of local, regional, and national employers; a comprehensive career resource information center; employment search skill development programs and workshops offered each semester; an on-campus recruiting program, which annually brings employer organizations to the YSU campus to interview graduating students for employment after graduation; and annual career/job fairs and consortium job fairs. Our staff also assists students in finding employment, either on campus or with local employers, while enrolled in the University.

Central to the operation of the Office of Career and Counseling Services is EASE (Electronic Applications for Students and Employers), a Web-based software system that makes it possible for currently enrolled students, YSU alumni, and employers to have 24-hour-a-day/seven-day-a-week access to recruiting information and services at Youngstown State University. Through EASE, students and alumni registered with Career and Counseling Services can upload their résumés to the database and publish them to one or more online résumé books, search job listings, e-mail résumés directly to employers, quickly view the latest announcements from the Office of Career and Counseling Services, review the recruiting schedule, and sign up for interviews with employers recruiting on campus.

Counseling Services. The Office of Career and Counseling Services provides short-term counseling, consultation, and referral services. In most cases, there is no fee for services. Issues commonly addressed during individual counseling sessions include depression, anxiety, relationship problems, family conflicts, low self-esteem, school and work problems, eating disorders, lack of emotional control, career indecision, loss and grief issues, and coping with illness.

The Office of Career and Counseling Services is located in 1034 Jones Hall. During fall and spring semesters office hours are 8:00 a.m. to 5:00 p.m. on Mondays, Wednesdays, Thursdays, and Fridays. The office is open from 8:00 a.m. to 7:00 p.m. on Tuesdays. During summer months, office hours are 8:00 a.m. to 5:00 p.m., Monday through Friday. For more information call (330) 941-3515 or visit http://www.ysu.edu/career-services/.

Student Health Clinic. The Student Health Clinic is located on the first floor of Kilcawley House, which is adjacent to Kilcawley Center. The entrance to the Clinic is located off University Plaza.

The Clinic provides health care to all currently enrolled YSU students—both resident and commuter students. Licensed physicians staff the Health Clinic 12 hours per week during the semester. Appointments are required. Students must call (330) 941-3489 to schedule an appointment. During break weeks and summer term, physicians have limited hours; however, registered nurses are available daily, year round.

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. General health care information is also available on the Clinic's website at http://healthclinic.ysu.edu/.

Office visits are free. Students do not need to have student health insurance to use the Clinic's services. Blood tests, X-rays, lab tests, etc., ordered by a YSU Health Clinic physician, are done off campus at the student's choice of provider and at the student's expense.

Student records are 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.

The Student Health Clinic also provides information and registration forms for Student Health Insurance. Details are available on the clinic's website.

Student Ombudsperson. The student ombudsperson has the official role of ensuring the interests and rights of all students enrolled at Youngstown State University by being an impartial, trustworthy person to oversee conflict-resolving procedures and assure due process for all parties. The ombudsperson works to produce informal resolutions for disputes; advises students of their rights; and identifies and refers students to the correct offices or individuals to address their concerns. Achieving informal resolutions depends substantially on helping disputants to appreciate their true situation and understand the options available to them. The purpose of the office

is to protect the rights of the student. The ombudsperson strives to maintain an atmosphere of confidentiality and fairness and to promote an environment conducive to learning and reasoned discourse.

The ombudsperson is Jack Fahey. Any student may make an appointment by calling (330) 941-3571 or by stopping by his office in the Kilcawley Center Staff Offices.

Testing. The Testing Office supervises and administers national admission and certification tests. These include the American College Test, the College Level Examination Program, the Graduate Record Exam (subject only), the Law School Admissions Test, and the Praxis Exam.

Veterans. Efforts are made to give all necessary guidance and assistance to military veterans and others eligible for VA educational benefits. Additional information may be obtained by contacting Financial Aid, 203 Meshel Hall, (330) 941-1321.

Bookstore. The YSU Bookstore is located between Kilcawley Center and the Andrews Student Recreation and Wellness Center. Textbooks, supplies, apparel, and gifts are what you will find when you visit the YSU Bookstore. You will also access the most popular fiction and nonfiction authors along with trade books. Our Bookstore includes a convenience store with your favorite snacks, coffee and last minute supplies. The Bookstore is the ONE-SOURCE for ALL your textbook needs and offers you ways to save money on them, which includes our huge selection of used textbooks priced 25% off new book prices. On-line textbook reservations are available with "Get Booked Early". Visit us on the web at www.ysubookstore.com or call 330.941.3589.

Housing. YSU owns and operates four housing facilities for students: Kilcawley House, located on University Plaza; Lyden House and Cafaro House on Madison Avenue; and Weller House on Wick Avenue. On-campus options for students range from traditional residence hall facilities to apartment-style housing. In addition to the facilities operated by the University, YSU works closely with two private housing operations that are on campus, the University Courtyard Apartments and Buechner Hall.

University Housing facilities are structured environments. Each is a small community, and as such, has procedures and regulations addressing noise, safety, guests, and security. Each facility has state-of-the-art building security systems. University residence halls have full-time professional and part-time student staff that oversee the operation of the halls and assist students with the issues of daily college life.

Kilcawley House was constructed in 1965. All areas of this facility have recently been refurbished. Public areas, bathrooms, and student rooms are attractive and modern. This traditional, seven-story housing facility can accommodate 224 students. Kilcawley residents live in double occupancy rooms, complete with bunk beds, wall-to-wall carpeting, individual room-controlled heating and air conditioning units, built-in desks and armoires, telephone jacks with voice mail access and caller ID, wireless Internet access, cable TV, and plenty of closet and drawer space. Lounges are available on each floor.

A computer lab with Internet access is located in the basement. The basement also contains wireless Internet access; a game room equipped with a TV and DVD player; Ping-Pong and pool tables; kitchenette with vending machines; fitness equipment; and two music practice rooms. Kilcawley House residents have the advantage of being located in the heart of the YSU campus and can use Andrews Recreation & Wellness Center and all of Kilcawley Center's facilities, including Home Savings and Loan, YSU Info & PC Lab, and copying service without going outdoors.

A new era began for on-campus housing at Youngstown State University when Lyden House opened in the fall of 1990. 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 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 individually room-controlled heating and air conditioning units, cable TV, telephone with voice mail access and caller ID, wireless Internet access, decorator vertical window blinds, overhead lighting, and tiled floors. All rooms in Lyden are handicapped accessible.

Each wing of this residence hall includes convenient showers and restrooms, quiet study rooms, and comfortable conversation lounges. Students have full access to a kitchenette/vending area, fitness room, a computer lab with Internet access, and laundry facilities in the lower level of Lyden. A convenient parking area is adjacent to Lyden House.

Cafaro House, our coed residential honors facility, opened fall 1995 and houses 274 students from the University Scholars Program, B.S.M.D. program, and honors program. Cafaro also houses graduate students, international students, and members of the Emerging Leader Community. The facility has enclosed suites that accommodate six to 18 residents, and it has individual rooms that branch off each suite area that house two to three residents. Each room has cable TV, Internet access, and telephone jacks with voice mail and caller ID.

In addition to providing a variety of lounge and recreational spaces with wireless Internet access similar to Kilcawley and Lyden, this facility also has academic spaces such as a seminar room, a computer lab with Internet access, and music practice rooms.

Weller House opened in fall 1991. It offers apartment-style, on-campus living, and each unit has a full bathroom with a tub and/or shower, a kitchen furnished with modern cabinets, wireless Internet access, telephones with voice mail access and caller ID, cable TV, an electric range, refrigerator/freezer, and a garbage disposal. Apartments vary in size and are designed to accommodate one to three students.

Weller House is located along Wick Avenue next to the Arms Family Museum of Local History and near the Butler Institute of American Art. Weller House accommodates 24 junior, senior, and graduate tenants. Complete renovation of Weller House included all new energy-efficient windows, heating and air conditioning units, carpeting, and lighting. Furnishings provided for each person are similar to those previously listed for Lyden House residents.

Weller also offers students convenient laundry facilities and fitness equipment on the lower level.

The University Courtyard Apartments opened in the fall of 2003. Independently owned and operated, the University Courtyard Apartments are an ideal option for students wishing to live on campus but not in a University residence hall. The Apartments are located in the Wick Oval, close to the center of campus and adjacent to the Dana School of Music. There are one-, two-, or four- bedroom apartments available (one student per bedroom). Each apartment comes equipped with ceiling fans; wall-to-wall carpet; appliances, including dishwasher, microwave, and garbage disposal; and mini-blinds. In addition, every apartment comes fully furnished. In the apartment complex, there are planned resident activities; a study center, including a computer lab; and a choice of fitness and recreation opportunities. The rent for the apartment is all-inclusive, which means the residents pay one amount for everything—central heat and air, electricity, water and sewer, local telephone, high-speed Internet access, and basic cable TV. For more information, please call (330) 941-1999 or visit www.universitycourtyard.com/.

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 Housing and Residence Life, cooperation

and regular communication ensure that the women residents are integrated into campus life.

Buechner Hall, designed and built expressly for women, 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 75 women in single and double rooms. The air-conditioned rooms are completely furnished, including linens and telephones, 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. Please call (330) 744-5361 for more information.

Applications are available online at http://cfweb.cc.ysu.edu/housing/intro.cfm. They can also be requested at (330) 941-3547 or in person.

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. Contact the School of Graduate Studies and Research at (330) 941-3091 to apply to the University.

Kilcawley Center. Kilcawley Center is often referred to as the heart of campus. This not only refers to its central location on campus, but to the services, conveniences, programs, and amenities it provides to the University community. The Center's casual atmosphere, comfortable lounges, and attractive dining areas are aimed at making free-time activity an integral part of a YSU education. Active with cultural, social, and recreational programming, Kilcawley Center provides for rich and diverse experiences outside the classroom. Visit Kilcawley's web site at www.kc.ysu.edu for details on Kilcawley's services, staff directory, the daily calendar of events, and student job postings.

The Center's services include the Candy Counter and the Bagel Stop for quick between-class snacks, a bank and ATM machines, quick copy services, a travel agency, fax service, a U.S. Mail drop, postage stamps sold, DVD rental machine, as well as offices for Student Government and student organizations.

Kilcawley Center's several study lounges are renowned for their comfortable overstuffed chairs and couches for relaxing or catching a nap. They are also a great place to do some homework, or catch up on some studying, and most of the lounges and restaurants now offer wireless internet access for laptop computers. Kilcawley Center also 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 to fit whatever the need may be. Graphic Services is open 8am to 5pm Monday through Friday and offers a lamination service and a variety of helium balloons for every occasion. Also on the lower level of the Center is ComDoc Copy Services, open weekdays until 5pm, and the YSU branch of Home Savings & Loan, open 7:30am to 3pm Monday through Friday.

The YSU Info & PC Lab on the upper level of Kilcawley. Students, faculty, and staff may use the popular software or access the Internet. The only fee charged is for laser printouts. The YSU Info & PC Lab serves as the Information Center and Lost & Found for the University, registers students for campus locker rentals, provides estimates for Kilcawley Resume and Typing Service, and is a YSU retail outlet for Microsoft software for current students, faculty, and staff who qualify.

Kilcawley Center offers a relaxing atmosphere with diverse choices in dining. Located on the lower level of Kilcawley are YSU Arby's, Peaberry's Café, KC Food Court, the Candy Counter, and

the Bagel Stop. On the upper level of Kilcawley is the newly remodeled Pete's Place Restaurant.

YSU Arby's daily serves breakfast and offers a large menu for lunch and dinner. In addition to roast beef sandwiches, YSU Arby's offers daily soups, fries, salads, milkshakes, and chicken and turkey sandwiches and wraps. There is always something new on the menu at YSU Arby's. Their large dining area is a popular meeting place on campus for students and staff. YSU Arby's is also open Saturdays during the academic year for breakfast and lunch, and is closed Sundays.

Peaberry's Café offers students a great place to relax and sip on a latte or mocha while watching the big screen TV, enjoying entertainment on stage, playing billiards, or surfing the web on the Café's computers. Peaberry's specialty menu includes freshly brewed coffees, espresso-based drinks, as well as fresh baked goods, sandwiches on French bread, and snacks. Peaberry's is open for breakfast and lunch daily, and Monday through Thursday evenings for dining during the academic year.

The KC Food Court offers a variety of food choices. Daily menu offerings include fresh fruit smoothies, homemade soups, custom-made subs, wraps, char-grilled sandwiches, home style French fries, and a variety of ready-to-go items. Popular are the large slices of pizza, hot side dishes of pastas and breadsticks, and freshly baked pastries. KC Food Court was recently remodeled and features Freshens Smoothie Company, Subconnection, and KFC Express, offering the Colonel's famous chicken. The Food Court opens at 10:30am daily Monday through Friday throughout the academic year. Several venues in the KC Food Court have extended hours to 7pm on Monday, Tuesday, and Thursday evenings.

The Bagel Stop is a New York-style bagel shop open for both breakfast and lunch Monday through Friday. The menu features fresh bagels with flavored cream cheeses, just-baked muffins, and Starbucks coffee. For lunch the Bagel Stop offers ready-to-go bagel sandwiches, yogurts, fresh fruit, smoothies, and giant homemade cookies.

The Kilcawley Candy Counter is a popular place for many on campus. Choose your favorite chocolates, gummy candy, dried fruit, and nuts from the glass candy jars and the Candy Counter student staff will weigh out your order. Energy drinks, iced teas, lemonades, juices, and cold Coke beverages, as well as a variety of granola bars, cookies, crackers, chips, and crunchy snacks are sold at the Candy Counter. U.S. Postage stamps and newspapers are also sold at the Candy Counter.

Kilcawley's new Pete's Place Restaurant offers a fun dining experience with contemporary decor accented with retro diner tables, unique lighting, beaded window treatments, and comfy booths. Pete's Place offers a new kind of dining experience on campus with an all-you-care-to-eat breakfast and lunch buffet. Pete's Place Restaurant (formerly Noodles) offers whole-wheat gourmet pizzas, specialty salads with organic dressings, your choice of homemade soups, just-baked breads, and a tall Coke beverage for one low price. For a small additional charge, add the sandwich or pasta of-the-day to your lunch or dinner. The restaurant is open at 7:30am for breakfast and serves lunch 10:30am to 2pm Monday through Friday. Pete's Place is also open Wednesday evenings for dinner. Pete's Place is located on the upper level of Kilcawley with entrances located at University Plaza and the east wing breezeway between Kilcawley and Kilcawley House.

University Dining Service and Catering Office is located on the upper level of Kilcawley in the main lobby entrance. The Catering Office provides a full catering menu for small group functions to large dinner buffets for up to 450 persons.

The recently renovated YSU Bookstore is also located on the upper level of the Center, as well as a convenience store, the Kilcawley Staff Offices, Room Reservations, the Office of Student Life, Student Activities, the Office of Student Diversity, Pan Atlas Travel, and the University Dining and Catering office. The Andrews Student Recreation and Wellness Center can also be accessed from the upper level of Kilcawley Center.

Kilcawley Center's lower level west wing, located under the YSU Bookstore, houses the Center for Student Progress. The east wing of Kilcawley Center is Kilcawley House, where the Office of Housing and Residence Life and the Student Health Clinic are located on the first floor.

Research at YSU

Youngstown State University is committed to fostering high quality, nationally competitive research to promote faculty and student development in support of the teaching mission of the University. As noted in its mission statement, "The School of Graduate Studies and Research supports the continued development of faculty scholarship and serves as the principal point of coordination for both internally- and externally-funded programs at Youngstown State University." These coordination efforts are directed at obtaining the resources necessary to mount and maintain scholarly and educational programs of excellence and, in some cases, to target specific areas for regional and/or national prominence.

Youngstown State University faculty are heavily invested in scholarship on an individual basis. Graduate faculty research interests are listed for each degree program in the *Bulletin*.

Center for Advanced Numerics, Complexity, and Networking

Parallel computing systems offer the promise of a quantum leap in the computing power that can be brought to bear on many important problems. The advancement of parallel computing is the focus of this Center, which utilizes a diverse group of scientists specializing in parallel algorithm development, mathematical biology, artificial intelligence, wave propagation, and parallel programming education.

Since Youngstown State University is part of the Ohio Statewide Users Group, all licensed software at the Ohio Supercomputer Center is available. The faculty research efforts involve a mix of graduate and undergraduate students who are exposed to the MP environment; MP is a programming environment for message-passing parallel computers. Students who master advanced computing skills are prized in industry and commerce.

Center for Environmental Monitoring and Restoration

This center's main goal is to assist in the restoration of the Mahoning River and to support environmental protection and restoration projects as an interdisciplinary team with a spectrum of complementary skills and resources. Team members have expertise in ecology, microbiology, botany, chemistry, geology, as well as environmental engineering and community planning.

The Center is designed to monitor and evaluate the restoration of the Mahoning River. Participants establish baseline ecological, chemical, and physical data before undertaking a large-scale river restoration project. The data are then used to guide and enhance the proposed restoration activity.

Center for Hydraulics Research and Education

This center is divided into four components: a hydraulics laboratory, a computational laboratory, a technical assistance program, and an educational assistance program. The hydraulics laboratory is collaboration between Youngstown State University and Parker Hannifin Corporation that aims to advance the study of hydraulics and pneumatics through interdisciplinary industrial research projects. Youngstown State University faculty and students are able to engage in a high level of applied research related to fluid power and control. The computational laboratory is used for flow modeling and analysis, interactive analysis, modeling and system simulation, and to simulate micro- and nanosystems. Technical assistance allows Parker Hannifin access to the expertise and assistance of YSU faculty and resources.

Electromagnetic Field Research and Instrumentation Center (EFRIC)

The main focus of this center is research in MRI optimization, optical and radio frequency communications, the development and characterization of novel nonlinear materials, and electromagnetic compatibility (EMC). These research efforts apply to the medical field, as well as communications and automotive industries. Technical support is provided by Advanced Imaging Research, Inc. of Cleveland; the EMC engineering team at Packard Electric Systems of Delphi Corporation; Internet provider cboss, Inc., and the Youngstown Business Incubator. The Center provides co-op opportunities and encourages collaboration with local hospitals and the NEOUCOM (Northeastern Ohio Universities College of Medicine) program.

The Research Program in Photon Induced Processes

Established in 1997 as a PACER Center, this research initiative is a focal point for faculty from the Department of Physics and Astronomy and the Department of Chemistry, whose activities focus on both fundamental and applied research in a variety of laser-related and facilitated areas. Included are nonlinear optical materials synthesis and characterization, gamma ray laser development, and the development of optical tools and measurement techniques for sensing, imaging, and spectroscopic applications. The Center for Photon Induced Processes (CPIP) provides extensive opportunities for student research and a focal point for collaborations with other universities, national government laboratories, and industry. Current or past collaborators include the NASA Lewis Research Center, Case Western Reserve University, Colorado State University, The University of Texas at Dallas, Sandia National Laboratories, the Institute for Nuclear Physics, Technical University of Darmstadt, Institute for Radiation Physics, University of Stuttgart, Butech Corporation of Salem, Ohio, and Applied Vision Systems, Inc. of Akron, Ohio. The Center is or has been funded by grants from the U.S. Air Force Office of Scientific Research, the National Science Foundation, the U.S. Office of Naval Research, the Department of Defense/Sandia National Laboratories, and Research Corporation.

The Center for Applied History

Established in 1997, this center's activities draw upon the expertise of faculty members from the Butler Institute of American Art and several University departments, including History, Geography, Sociology and Anthropology, and Art. The Center for Historic Preservation is committed to making the most of existing resources by celebrating and safeguarding our nation's historic architecture, industrial and engineering sites, and cultural resources. Students are included in all aspects of the Center's activities, which include Historic American Building Survey/Historic American Engineering Record documentation, National Register and National Historic Landmark nominations, Historic Resource Surveys and Determination of Eligibility Reports, and transcribing oral history interviews. The Center collaborates with the Mahoning Sanitary District on the Youngstown Water Works, the Institute for History of Technology and Industrial Archeology, The Youngstown Historical Center of Industry and Labor, and the Mahoning Valley Historical Society. The Center has received external funding from The Ohio Historic Preservation Office, Battle of Homestead Foundation, Carnegie Mellon University, and the Ohio Humanities Council.

Center for Working-Class Studies

The Center for Working-Class Studies is the first center of its kind in the United States focusing on working-class life and culture. The mission is to foster multidisciplinary research in the area, support the development of courses that focus on work and class, and serve the greater Youngstown community by providing public programs as well as education. The Center is funded by grants from the Ford Foundation and the Ohio Humanities Council.

Center for Urban and Regional Studies

This Center is a part of Youngstown State University's Public Service Institute. It provides research and technical assistance that focuses on challenges to urban and regional development. Seven programmatic areas include reduction in poverty, local government assistance, economic development, urban and environmental planning, urban data (including census) services, and crime reduction. The Center is funded by the Ohio Board of Regents Urban Universities Program (UUP) and a match by Youngstown State University.

Center for Human Services Development

The Center is a resource for health and human service organizations and community leaders. It works with the community to identify problems and needs, develop solutions, and evaluate activities in the health and human services field.

University-Industry Research Partnerships

Center for Excellence in Advanced Materials Analysis

YSU has been awarded a Wright Capital Projects grant in the amount of $2.1 M through the Third Frontier Program of the Ohio Department of Development. The funding, awarded for a grant submitted through the Department of Chemistry in collaboration with Fireline TCON, Inc., will be used to establish a state-of-the art electron microscopy facility within the College of STEM to conduct research on advanced composite materials for applications ranging from parts for molten aluminum processing to conformal body armor for U.S. troops. The new facility will greatly expand YSU's capabilities for materials research by permitting analysis at the nanoscale to atomic levels.

Third Frontier Advanced Energy Program

A second Wright Project involves research collaboration with Catacel. Catacel Corp. has recently developed a compact flexible fuel reformer (FFR) based on an accordion-style corrugated metal foil heat exchanger; the exchanger is a standardized low-cost foil module that can tolerate temperatures up to 900°C. Researchers from YSU will be working with Catacel engineers to improve their understanding of catalyst stability, a key step in the commercialization of the heat exchange platform system for use in fuel processing. Without knowledge of the performance of these catalysts for extended periods of time under real operating conditions, Catacel cannot provide performance guarantees to its customers. Enhancement of existing systems and construction of additional test units will be completed and transferred to YSU through the funding from this project, and these units will be used for extended time testing of selected catalyst systems.

Center for Transportation and Materials Engineering

The Center for Transportation and Materials Engineering (CTME) at YSU was established in late 2006 as a result of funding received from the United State Department of Transportation (USDOT). The funding was included in the 2005 Federal Transportation Efficiency Act of the 21st Century. That legislation authorized the U.S. DOT to fund 22 Tier II University Transportation Centers [UTCs] throughout the nation. Youngstown State University was one of the four sites selected in Ohio; the other three are Cleveland State University, the University of Akron, and the University of Toledo. The YSU CTME has chosen to respond to the national strategy for surface transportation as delineated in the U.S. DOT Strategic Plan and the U.S. DOT Research, Development, and Technology Plan. Building on YSU's established expertise in the areas of mate-

rials research and engineering for infrastructure enables the Center to focus its efforts on applied research and applications through the use of materials engineering and increases and innovations in advanced manufacturing of materials to increase the longevity, mobility, and sustainability of the Nation's Transportation Infrastructure. The YSU CTME is partnership driven and includes students, faculty, stakeholders, and transportation and transit agencies and organizations. All of the efforts at the YSU CTME will address the goals of the UTC Program through research, education, and technology transfer activities.

Economic Development Activities and Applied Research

A recent initiative within YSU is the provision of a formal system of support within the School of Graduate Studies and Research for economic development by providing access to University research expertise and research facilities to the regional business community. A Business Community Liaison coordinates access to faculty expertise and research facilities by industries in the Valley, and the University has embarked on a new role of community support. These activities are also coordinated with the YSU Metropolitan College for workforce development and with other economic development organizations, such as the YSU Small Business Development Center and the regional Advanced Manufacturing Initiative of local businesses.

The School of Graduate Studies and Research

Mission Statement

As a state-assisted metropolitan university, the instructional mission of Youngstown State University is focused on the educational, scholarship, research, and service requirements of residents and students of northeastern Ohio and western Pennsylvania, as well as a broader region, including all of Ohio and its surrounding states. This mission is designed to meet a variety of needs, including those in the industrial, professional, business, educational, social, and cultural areas. In support of this mission, the fundamental responsibility of the School of Graduate Studies and Research is to make quality graduate education available to all qualified persons desiring it. Graduate study at Youngstown State University provides an integrated program of advanced study leading to discipline mastery and an understanding of related subjects. A thorough training in research skills and/or professional applications associated with the base of knowledge for each discipline is implicit in all graduate programs. Because of the very nature of graduate work itself, a more than average investment and initiative in learning, inquiry, research, and scholarship will be required on the part of candidates for an advanced degree. Thus, the School of Graduate Studies and Research seeks to develop and maintain programs of high stature that achieve appropriate professional accreditation and attract quality students to the University.

Graduate programs that yield students who have mastered their discipline require a faculty of teacher-scholars who are active in their respective fields of study, whether they are professionally oriented or involved in more traditional scholarship, research, and creative activities. Individuals who meet these requirements constitute the graduate faculty.

The School of Graduate Studies and Research supports the continued development of faculty scholarship and serves as the principal point of coordination for both internally- and externally-funded programs at Youngstown State University. These coordination efforts are directed at obtaining the resources necessary to mount and maintain scholarly and educational programs of excellence and, in some cases, to target specific areas for regional and/or national prominence.

Development and Organization

On March 28, 1967, the Trustees of The Youngstown University authorized the president and faculty of the University to begin developing graduate programs at the master's degree level, starting in the fall of 1968. In May 1967, the Faculty Senate of The Youngstown University authorized the development of master's degree programs in various academic departments of the University. At its first meeting on August 15, 1967, the Youngstown State University Board of Trustees established the office of the dean of the Graduate School and the general regulations governing the appointment of a graduate faculty. It also identified and authorized the initial graduate degree programs that were to be offered. These programs gained approval from the Ohio Board of Regents on December 15, 1967. Preliminary accreditation was given by the Higher Learning Commission of the North Central Association of Colleges and Schools in July 1968; continued accreditation was awarded in 1974, 1978, 1988, 1999, and 2008. The School of Graduate Studies and Research is a member of the Council of Graduate Schools in the United States and the Midwestern Association of Graduate Schools.

The School of Graduate Studies and Research is administered by a dean who is also a member of the Graduate Council. The elected members of the Graduate Council consist of one representative from each college's Graduate Studies Committee, one at-large member from Education, one graduate student member, and one program director from each college. Standing committees of the Graduate Council are Curriculum, Policy, Assistantships Allocation, Graduate Student Recruitment and Retention, and Graduate Student Grievance.

Graduate Programs

The following graduate degree programs are offered by Youngstown State University:

- Doctor of Education (Educational Leadership)
- Doctor of Physical Therapy
- Master of Arts (American Studies; Art Education; Economics; English; Financial Economics; History)
- Master of Business Administration (Accounting; Executive; General)
- Master of Computing and Information Systems
- Master of Fine Arts (Creative Writing)
- Master of Health and Human Services
- Master of Music (Jazz Studies; Music Education; Music History and Literature; Music Theory and Composition; Performance)
- Master of Public Health
- Master of Science (Biology; Chemistry; Criminal Justice; Environmental Studies; Mathematics)
- Master of Science in Education (Counseling; Educational Administration; Master Teacher Programs for Elementary, Secondary, and Special Education Teachers)
- Master of Science in Engineering (Civil/Environmental and Chemical; Electrical and Computer; Industrial and Systems; Mechanical)
- Master of Science in Nursing (Chronic Illness Care; Nurse Anesthetist; School Nurse)
- Master of Social Work
- Early Placement Program for Ph.D. in Engineering with The University of Akron and Cleveland State University

Admission

Admission to the School of Graduate Studies and Research is granted by the dean of Graduate Studies and Research upon recommendation of the department in which the applicant wishes to do major work. Students in combined baccalaureate/master's programs must follow standard procedures for admission to the School of Graduate Studies and Research. Admission is required before registration in any course for graduate credit (also see Graduate Courses for Undergraduates). The complete application for admission, including supporting materials, should be received by the School of Graduate Studies and Research at least four weeks before the beginning of the term in which the applicant plans to register. YSU admits graduate students in the fall, spring, and summer semesters, except students majoring in physical therapy, who must enter only during the summer semester, and social work, who may enter only during the fall semester.

Admission Procedure

The Application for Graduate Program Admission is available in the School of Graduate Studies and Research Office. The form is also available as a PDF file on the School of Graduate Studies and Research website. Online applications are also available. Contact the School of Graduate Studies and Research or visit http://www.ysu.edu/Grad School/ for more information about these options.

International students must apply for admission on the Application for Graduate Admission

for International Students. It is currently available in hard copy form by contacting the School of Graduate Studies and Research at (330) 941-3091 or graduateschool@cc.ysu.edu. The forms are also available on the School of Graduate Studies and Research website, http://www.ysu.edu/GradSchool/.

Students utilizing the online application are required to pay the admission fee by credit card or electronic check as part of the process. Paper applications are submitted with the application fee to the Office of Student Accounts and University Receivables. Applicants must send one transcript from each college or university attended, except YSU, to the School of Graduate Studies and Research. Official transcripts must be sent directly from the institution to the School of Graduate Studies and Research. Personal or unofficial transcripts issued to the student or those delivered or sent by the applicant instead of the institution will not be accepted.

Applications for admission cannot be reviewed until official transcripts of all previous college or university work are received. The applicant must see that the transcripts reach the School of Graduate Studies and Research at the earliest possible date. The applicant should provide all the information requested in the first submission of materials. Omission of information on the application form will necessitate requests for additional information and therefore delay processing of the application. International applicants should also see the International Student Admission section for additional requirements. As soon as possible after receipt of application materials, the graduate dean will notify the student of the action taken on the application and, if the student is admitted, will provide information on registration procedures.

Test Information

In certain master's programs, test results must be submitted as part of the admission procedure. The Graduate Record Examination is available at Sylvan Learning Center locations. The Graduate Management Admission Test is available at Pearson VUE test centers; see www.mba.com/mba for more information. Arrangements for taking the Miller Analogies Test on campus may be made directly with the Testing Office in 109 Meshel Hall, (330) 941-3175. Test scores are valid for five years.

Admission Requirements

Minimum requirements for admission to the School of Graduate Studies and Research are the following:

- A bachelor's degree from a college or university certified by a regional accrediting agency (e.g., North Central Association of Colleges and Schools) approved by the U.S. Department of Education
- An unrecalculated cumulative grade point average in undergraduate work of at least 2.7 (on a 4.0 scale). If an undergraduate course has been repeated, all grades received will figure in the calculation of the grade point average.
- Satisfactory preparation for the graduate program in which the student wishes to enroll as specified by the department of the major
- A test of written/spoken English, which the University reserves the right to request, of any entering graduate student whose primary language is not English
- Degree-seeking students having an undergraduate GPA below 2.7 must present a satisfactory score on the general test of the Graduate Record Exam, the Miller Analogies Test, or graduate-level subject specific exam as specified by the department of the major

The applicant is reminded to check specific admission requirements of the program in which he or she wishes to enroll to determine if there are any additional requirements.

Types of Admission

Regular. Regular admission will be granted to students who satisfy the admission requirements for the master's program in which they wish to enroll. Other categories are available as noted.

Provisional. Upon recommendation of the program director and/or chair and subject to the approval of the dean of Graduate Studies and Research, a student may be accepted with provisional admission if his or her undergraduate record shows slight deficiencies compared to the admission requirements of the program to which the student seeks entrance. Students who are admitted with provisional status because of undergraduate course deficiencies will be required to make up the deficiencies by taking the appropriate undergraduate courses. Students admitted in provisional status may have no more than 9 s.h. of undergraduate course deficiencies. Students who are admitted with provisional status because of low test score(s) or low unrecalculated undergraduate grade point averages will be reviewed by the program director and/or chair when nine semester hours of degree-credit coursework are completed. The program director and/or chair will change the student's status from provisional to regular if the deficiencies have been met and/or the student's record justifies such a change. The advisor will report the change to the dean of Graduate Studies and Research on the Action on Provisional Status form.

Nondegree. Nondegree status provides an opportunity for individuals who hold a baccalaureate or higher degree to enroll in graduate classes for professional or personal development, personal enrichment, or to explore the possibility of entering a graduate degree program without completion of the regular graduate admission process. Departments may require prior approval for nondegree student registration in departmental courses.

Status as a nondegree student is not an admission to a School of Graduate Studies and Research degree or graduate certificate program. Nondegree applicants are not required to submit credentials. Nondegree students must complete a nondegree application for graduate studies that indicates their academic area of choice and includes a signed statement attesting that they have earned the baccalaureate degree. Nondegree students are required to pay the regular application fee. If students decide to seek admission to a graduate program, no further application fees will be assessed, but all required credentials must be submitted. Within the nondegree status category, the dean of Graduate Studies and Research may permit a student to take courses as a special nondegree student.

Nondegree students are ineligible for any financial aid or assistantships through the School of Graduate Studies and Research. Nondegree students may seek advisement from the chairperson or program director in the academic area in which they have been permitted to take courses. A maximum of nine semester hours taken as a nondegree student may be applied toward a degree program if accepted by the department in which he or she wishes to earn a degree and if the department's recommendation is approved by the dean of Graduate Studies and Research. This transfer limit may not be appealed. However, all graduate courses taken as part of a graduate certificate may be counted toward a degree program, if the student is subsequently accepted into the program and the certificate courses are applicable.

Transient. Transient admission may be granted to a degree-seeking student who attends any accredited graduate school and who submits a Graduate Transient Student form, signed by the dean of the student's home graduate school, showing that he or she is a graduate student in good standing. The form to be used in such cases may be secured from the YSU School of Graduate Studies and Research office. Under some circumstances, transient admission may be renewed for a second semester, but the graduate deans of both universities must approve the renewal. If a transient student later wishes to become a regular graduate student, he or she must be admitted to a degree program by following the usual admission procedures. An admitted transient student

must meet all prerequisite requirements for any course taken at Youngstown State University.

International Student Admission

International applicants must complete an application for admission and provide all materials required at least four months prior to the semester they wish to be considered for admission. In addition to the regular admission requirements, the following must also be submitted:

- An original or certified copy of the degree earned and all course and examination records, including grades received, beyond the secondary school level. All original documents must be provided in the official language of the country from which they come. If English is not the official language, English translations must also be provided. If the post-secondary institution maintains all records in English, but English is not the official language of the country, the institution must provide written verification that this is the case on official letterhead. (Note: Documents from the following countries must be mailed directly to the university from the institution via regular postal service: Canada, Ghana, Nigeria, Puerto Rico, and Sierra Leone.)
- A minimum score of 550 on the paper-based, 213 on the computer-based, or 79-80 on the internet-based (iBT) Test of English as a Foreign Language (TOEFL) administered by the Educational Testing Service (ETS) by graduates of foreign universities who are nonnative English speakers. (Scores over two years old by the beginning of the term applicants wish to enter are not acceptable.) The School of Graduate Studies and Research will accept the academic version of the IELTS (International English Language Testing System) as an alternative to the TOEFL exam for international students. (A score of 6.5 on the IELTS test equates to a 550 on the TOEFL.) Proficiency may also be demonstrated by a minimum score of 80 on the Michigan English Language Assessment Battery (MELAB) administered by the English Language Institute, Ann Arbor, Michigan, or a letter of certification from the Youngstown State University English Language Institute stating that the applicant has completed the program of study and is proficient in English at a level appropriate to pursue a graduate degree and present an English language thesis if one is necessary as a degree requirement. Prior to full admission to graduate study, students may be tested and placed in special English classes, if necessary, to ensure an adequate level of English proficiency. (Note: Evidence of proficiency is waived for applicants educated in English-speaking countries as defined in the YSU Undergraduate Bulletin or for applicants holding U.S. Legal Permanent Residence for one year.)
- For F-1 or J-1 Visa certification: evidence of financial support and sponsorship during the period of study at YSU, including documents of verification

YSU enrolls students in accordance with the policy of the United States Bureau of Citizenship and Immigration Services.

Workshops

Students who wish to take a workshop for graduate credit but who have not completed the regular School of Graduate Studies and Research admission process will be permitted to register in the School of Graduate Studies and Research as nondegree students. Graduate workshops are graded on an S/U (satisfactory/unsatisfactory) basis.

Youngstown State University workshop courses, upon approval of the graduate advisor, may later be applied to degree work if regular admission to the School of Graduate Studies and Research is obtained and if those courses are part of the degree program. Workshop courses are those specifically designated as such in this catalog or by the Graduate Council.

Transfer Credits

Transfer hours will be considered for acceptance at the time of application/acceptance to the School of Graduate Studies and Research. After admission to a program of study, a student who wishes to attend another university to complete coursework toward a YSU graduate degree must complete the Request for Transient Status form available from the Office of Graduate Studies and Research in order to transfer credits to a YSU degree. Every transfer course must either replace a required course of the program or, if not a direct replacement, integrate satisfactorily into the student's program. While transfer of a quarter-based course may generate excess semester hours, such hours may not count toward degree requirements unless they replace a complete course in the program.

Master's Degree

Up to nine semester hours (12 quarter hours) of graduate work completed at other accredited institutions may be applied toward a master's degree at YSU, provided the student earned a grade of A or B in such courses.

Doctoral Degree

Up to 18 semester hours (24 quarter hours) of post-master's degree graduate work completed at other accredited institutions may be applied toward a doctoral degree at YSU, provided the student earned a grade of A or B in such courses.

An accredited institution is one that is approved or accredited by the appropriate regional accrediting agency (e.g., North Central Association of Colleges and Schools) for graduate-level work.

Credits for courses in which grades of S or CR were received will not be transferred. The number of transfer credits to be accepted in each case will be determined by the graduate dean upon evaluation and recommendation by the department of the student's major. It is the responsibility of the student to initiate a request for the approval of transfer credits. Transfer hours are not included in the calculation of the student's cumulative grade point average.

In general, workshop format courses are not acceptable for transfer. Professional development workshops are not acceptable. However, if the workshop fulfills the following requirements, credit may be considered for transfer to Youngstown State University:

- The workshop must be taught as part of a master's degree curriculum of the university at which the course was taken.
- The workshop should consist of a minimum of 12.5 contact hours per semester hour.
- The workshop must include exposure to the disciplinary research literature appropriate to the course.
- The workshop must include the opportunity for outside work, such as term or research papers or other major assignments appropriate to a graduate course.
- Credits for courses in which grades of S or CR were received will not be transferred.

Registration

Advisement

Before initial registration, the student must consult with the faculty member in charge of the program to which the student has been admitted or with an assigned advisor for advice in developing a program of study that leads to the desired degree. The ultimate responsibility for selection

of graduate courses, based upon the requirements of the student's program as set forth in the *Bulletin*, remains with the student. Continued consultation with the advisor is encouraged. Because of the nature of certain programs, an advisor may require consultation before each registration.

Registration Procedure

All Youngstown State University class registration takes place online through the MyYSU Portal (http://my.ysu.edu). Registration day and time are determined by the student classification and hours completed. Registration dates and appointment times for current students are available on the MyYSU Portal.

Registration requires that the student agrees to pay all tuition and fees associated with the registration. Failure to withdraw does not release the student from his or her financial obligation incurred by registration. All significant dates are published in the catalog and in the *Schedule of Classes* for each specific semester.

Change of Registration

Students may change their registration up to the last day to add a class. All dates are available on the MyYSU Portal.

Withdrawal from a course must be accomplished through the online registration system. Failure to attend class or notification to an instructor is insufficient. A grade of F will be recorded unless a student officially withdraws.

Complete Withdrawal of Registration

The student who wishes to withdraw from all classes in a particular semester must also process this through the registration online system. If a student withdraws from all classes during the first two weeks of the semester, the academic record will contain the statement, "Student completely withdrew during the first two weeks of the semester."

Cross-Registration of Courses among Northeast Ohio Public Universities

Under specific circumstances, a graduate student may take one or more graduate courses at Cleveland State University, Kent State University, The University of Akron, Ohio University, or Youngstown State University without registering as a transient student at the university delivering instruction. The course should contribute to the student's program of study and be unavailable when needed to complete the student's program at the student's home institution. The student must be in good standing (GPA › 3.0) and be within the time limits for completion of the program. The graduate program unit at the student's home institution will establish a graduate special topics or independent study course identification capable of being tagged by the home university with a title that will correspond to the course title at the host university and with the initials of that university (i.e., CSU, KSU, or UA). Registration for such a course is controlled by the home department and will be permitted only upon receipt of the Approval for Acceptance of Course Work at Northeast Ohio Public Universities form, which is available from the Office of Graduate Studies and Research. Any department that has no established special topics or independent study course may not participate in this cross-registration program.

Other Regulations

Time Limit

Master's Degree. All coursework, including transfer credits, offered in fulfillment of the minimum credit-hour requirement for the degree, all comprehensive exams, and thesis (if required)

must have been taken within the six-year period immediately preceding the date on which the last requirement is completed.

Doctoral Degree. All post-master's coursework, including transfer credit, must be taken within an 11-year period.

Matriculation to Doctoral Candidacy. Doctoral students shall be granted a six-year period to successfully complete the general examination and acquire candidacy status.

Doctoral Candidacy to Final Dissertation Copy. Doctoral candidates will have five years from the acquisition of candidacy status to file the final dissertation copy. Failure to meet this time frame will result in cancellation of the candidacy. With the approval of the dissertation advisor and the College Graduate Studies Committee, the student may take a supplemental general examination to reacquire candidacy. If the student passes the supplemental general examination, he or she is readmitted to candidacy and must complete the dissertation within two years. The supplemental general examination may be repeated once.

In special cases, with appropriate justification by the student, the dean of Graduate Studies and Research may grant an extension of the coursework time limit upon the written request of the chair or program director of the department of the master's or doctoral study.

Graduate Courses

Graduate credit may be earned in the following courses:

- 8000-level courses, which are for doctoral students only
- 6900- and 7000-level courses, which are open to graduate students (see Graduate Courses for Undergraduates). At least one-half of the credits applied toward the master's degree must be earned in courses in the 6900- and 7000-series.
- Upper-division undergraduate swing courses (5800-level), in which the student may enroll for graduate credit only

Only certain upper-division undergraduate courses may be taken for graduate credit. Those in this category are listed in the Courses section of this catalog. To earn graduate credit in an upper-division course, the student must be admitted to the School of Graduate Studies and Research before the course is taken. Graduate students in undergraduate courses that offer graduate credit will be required to pursue the subject matter in greater depth than the undergraduate student.

Graduate students may register for 4000-level or lower courses, but these courses do not apply toward the requirements of a graduate degree. Although the grades received and semester hours for such courses appear on the student's record, the hours and quality points are not included in the student's cumulative totals.

Seminar

A seminar generally consists of a group of advanced students studying a subject under a professor, each making some pertinent contribution and all exchanging results through informal lectures, reports, and discussions.

Thesis or Dissertation

Certain programs accept or require a thesis or dissertation as partial fulfillment of the requirements for the degree. Students follow the style manual used by the field as determined by the department. The deadline to submit theses is the first day of final examinations of the graduating semester. Additional thesis and dissertation presentation information is available from the School of Graduate Studies and Research and individual departments.

Second Master's Degree

A student who has a master's degree from YSU and desires a second master's degree must earn a minimum of 12 semester hours of credit in addition to the total that the student had when requirements for the first degree were completed, and he or she must complete the requirements for another graduate program. Students with a master's degree from another university will be limited to a maximum of nine semester hours of transfer credit.

Interrupted Enrollment

Students who interrupt their attendance for six or more semesters (two calendar years) must apply for readmission as former students at least two weeks before late and final registration.

Graduate students who fail to take courses or otherwise pursue their graduate education for two years will be readmitted only under regulations in force at the time of reapplication and after review by the department for approval of the readmission.

Full-Time Status

Full-time students carry nine or more semester hours for credit. Graduate students who complete less than nine hours per semester may lose eligibility for federal financial aid as a full-time student.

Reduced Load for Employed Students

The School of Graduate Studies and Research recommends that the employed student carry less than a full academic load as determined in consultation with his or her academic advisor.

Graduate Courses for Undergraduates

The Application by Undergraduate to Enroll in a Graduate Course form is available in the School of Graduate Studies and Research office. Eligible students may choose to take such courses for graduate or undergraduate credit.

For Graduate Credit. An undergraduate student who is enrolled as a senior at Youngstown State University or at another member institution of the Academic Alliance (currently including Lake Erie College, Slippery Rock University of Pennsylvania, Thiel College, Walsh University, and Westminster College) or another institution of higher education with which YSU has a formal academic agreement at the graduate level, and who has an unrecalculated grade point average of at least 2.7 may enroll in 6900- and 7000- level graduate courses, provided the total schedule for the semester (including undergraduate courses) does not exceed 12 semester hours. Before registering for courses, the student must have the approval of the program director in the program where the credit will be applied, the course instructor, and the dean of Graduate Studies and Research. The credit earned may be used for graduate credit at YSU only after the student is admitted to the School of Graduate Studies and Research and the credit is accepted by the department in which the student continues graduate work. (Such coursework intended for graduate credit cannot count toward the fulfillment of the requirements for a bachelor's degree at Youngstown State University.) The maximum amount of such credit acceptable at YSU is nine hours.

Academic Standards

A cumulative grade point average of at least 3.0 (on a 4.0 scale) is required for graduation. All graduate courses taken at YSU are included in the grade point average calculation (see Grading System for grades less than C). Good academic standing for graduate students is a cumulative grade point average of at least 3.0 (on a 4.0 scale) for all graduate credit courses taken at YSU.

Satisfactory Academic Progress. Satisfactory academic progress at the graduate level is maintained by satisfying the following criteria:

- A degree-seeking graduate student must maintain a minimum grade point average of 3.0 (on a 4.0 scale). Any course grade of D or F must be repeated and passed with a grade of A or B.
- A degree-seeking graduate student must successfully meet the requirements, including the time requirement, of all comprehensive examinations of the degree program
- A degree-seeking graduate student must complete with a passing grade any thesis requirements (or the equivalent) of the degree program
- A nondegree graduate student must maintain a minimum grade point average of 3.0 (on a 4.0 scale)

For degree programs requiring up to 39 semester hours for completion, a student may count no more than six semester hours of coursework with a grade of C toward the minimum graduation hour requirements. For students in programs requiring 40 semester hours or more for completion, no more than nine semester hours of coursework with a grade of C may count toward the minimum graduation hour requirement.

Academic Suspension. A graduate student who is not maintaining satisfactory academic progress as determined by the graduate academic program director or department chairperson and graduate dean may be excluded from registration and dropped from the program in which he or she is enrolled. Such action constitutes academic dismissal from the School of Graduate Studies and Research.

Academic suspension for a student with regular admission is automatic if

- the cumulative grade point average is below the minimum after two semesters during which the student registered "not in good standing";
- the student fails to pass a comprehensive exam after three tries.

A provisionally admitted graduate student must maintain a minimum grade point average of 3.0 (on a 4.0 scale). A provisional student whose GPA falls below a 3.0 will immediately be dismissed.

Any student in nondegree status whose cumulative grade point average drops below the minimum (3.0) will be prohibited from enrolling in further graduate coursework.

Registration for any session or continuous registration during a full summer counts as one semester for these purposes.

A graduate program may utilize additional academic standards to determine satisfactory academic progress and/or standards for academic suspension; however, such standards must be distributed in writing to all graduate students in the program and must be filed and approved by the dean of Graduate Studies and Research.

Readmission Procedures

- Under exceptional circumstances and with the approval of the Dean of Graduate Studies and Research, a program may readmit a suspended student. In such cases, the normal six-year limitation on coursework shall be applied.
- Graduate students suspended for failing to maintain satisfactory academic progress may appeal their suspensions within one year in writing to the Graduate Council. The decision of the Council is final.

- After a period of one year, a graduate student who has been suspended for academic reasons may reapply to the School of Graduate Studies and Research in order to begin a new degree program or to pursue studies in nondegree status. A readmitted graduate student is not permitted to register for any courses offered by the program from which he or she was academically suspended.

Grading System

The following grading system is used in reporting a final evaluation of the work of graduate students in courses or thesis research: A, B, C, D, and F. The grade point equivalents are 4, 3, 2, 1, and 0, respectively. A graduate student may not elect to take a course under the credit/no credit option.

Grades of D and F carry no graduate credit but will be used to determine the student's grade point average. Failure will normally be indicated by a D; a grade of F indicates that the student has not achieved even a minimum grasp of the essentials of the course. A grade of F can also result from failure to withdraw officially from a course (see Change of Registration and Reduction/Refund of Fee Charges Upon Withdrawal). A student has the privilege of repeating a course once, but the repetition is treated merely as another course, along with the first, in calculating the student's grade point average. Any course grade of D or F must be repeated and passed with a grade of A or B.

On petition by the student and concurrence of the advisor and program director, the dean of Graduate Studies and Research may approve for exclusion from the calculation of the student's grade point average courses that do not apply to the current degree program. In no case may courses be excluded from calculation of the grade point average once a graduate degree has been conferred.

Graduate workshops are graded on an S/U (satisfactory/unsatisfactory) basis.

A grade of I (incomplete) may be given to a student who has been doing satisfactory work in a course but who, for reasons beyond the student's control and deemed justifiable by the instructor, does not complete all requirements for a course by the time grades are submitted. A written explanation of the reason for the I and a date by which all course requirements will be completed (which must be within one year) will be forwarded to the Office of the Registrar for inclusion in the student's permanent record, with copies to the student and the department chair. The instructor will initiate a grade change upon completion of the course requirements. If no formal grade change occurs within one year, the I automatically converts to an F. If graduation occurs within the one-year time period, the I grade will be converted to an F before graduation. 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 incapacitated before converting the grade.

The grade of W will be given for all withdrawals properly processed during the third through sixth weeks of any semester (or from the fifth calendar day through the third week of each six-week summer term). A grade of W does not appear on the student's academic record if withdrawal occurs before the end of the second week of classes. A withdrawal made after the three- to six-week withdrawal period (beyond the third week during summer) will be recorded as an F unless the withdrawal was the result of circumstances over which the student had no control as shown by evidence presented by the student in a petition to the dean of Graduate Studies and Research. Any grade of F assigned because of absence may be reviewed upon petition to the dean of Graduate Studies and Research. Where withdrawals change the student's status from full-time to part-time, the student immediately forfeits any privileges contingent upon full-time status, and all interested parties will be notified by the appropriate university officials.

In the case of thesis work, independent study, and other courses where research or scholarship is still in progress at the time grades are to be reported, a PR may be reported in place of a conventional grade. The PR grade is intended to indicate that it is the nature of the scholarship rather than the student's ability to complete the work that is preventing the issuance of a conventional grade. A PR grade must be converted to a regular grade prior to graduation. However, a PR grade can remain on the student's permanent record if the course is not needed. A PR grade in and of itself will not prevent a student from graduating.

AU signifies that the student was enrolled in the class as an auditor.

Grade Changes. Applications for grade changes may be secured from the Office of Records, must be completed by the instructor, and must contain the signature of the dean of Graduate Studies and Research unless the change is from incomplete (I) or progress (PR). All grade changes must be submitted to the Office of Records by the dean or instructor; they will not be accepted from the student. In no case may a grade be changed for the purpose of changing the grade point average of the completed degree after a student has received a graduate degree.

Intrauniversity Transfer (Change of Curriculum). A student must request in writing a transfer from one graduate program to another. A transfer is not complete until an advisor in the program to which the student is transferring has been appointed and has accepted the student as an advisee, and when the change has been reported to and approved by the dean of Graduate Studies and Research. In such cases of transfer, courses taken in the original curriculum that also apply toward the degree in the new curriculum will be accepted. The student's academic record and grade point average will reflect all graduate courses taken.

Auditing Courses. A graduate student may register for and attend any course as an auditor. An auditor is not held responsible for the regular classwork, class attendance, and preparation of assignments and receives no credit for the course. The student pays the regular tuition as well as any other applicable fees for the course(s) audited. Assistantships and scholarships do not cover audited courses. Audit courses are carried in a student's load only for fee purposes. A student who has registered for a course for audit may not change that status to credit after the last day to add a class. An AU may be given only to a student who has begun a course as an auditor or who has changed status to that of auditor on or before the last day to add a class.

Foreign Language Proficiency Examinations

The Department of Foreign Languages and Literatures administers proficiency examinations in the following languages: French, German, Italian, Latin, Russian, and Spanish. The graduate student should consult the major department to learn specific degree requirements. A grade of pass or fail on the proficiency examination will be registered with the School of Graduate Studies and Research.

It is the responsibility of neither the University nor the Department of Foreign Languages and Literatures to tutor students or to recommend tutors for these examinations.

Commencement

The Intention to Apply for Graduation form, the Application for Graduation form, and the Cap and Gown forms must be filed before 5 p.m. on the third Friday of the semester in which the student intends to graduate. Submission of the graduation application is the student's responsibility. Late applications will be accepted through the Friday of the sixth week of the semester in the Office of Student Accounts and University Receivables but will require a late application fee payment. A copy of the Intention to Apply for Graduation form will be sent to the student's major department. There are three graduation ceremonies each year: fall commencement at the end of the first semester in December, spring commencement at the end of the second semester in May,

and summer commencement at the end of the summer session in August.

Posthumous degrees

Youngstown State University may award posthumous graduate degrees under certain circumstances. Each case will be considered individually and must be reviewed by the deceased student's thesis or dissertation committee (as appropriate), the student's advisor, and relevant department faculty, and must be approved by the YSU Graduate Council.

Visiting Graduate Students

A visiting graduate student is defined as one who is completing graduate academic work at Youngstown State University for credit at another university. All visiting graduate students shall be required to be granted visiting student status while engaged in academic work at YSU. Applications for visiting student status are available from the School of Graduate Studies and Reasearch. Visiting student status shall provide access to the following campus resources (fees may be required): a YSU identification card; access to campus buildings and laboratories, including computer labs; use of library facilities; and campus parking.

The Code of Student Rights, Responsibilities, and Conduct

Youngstown State University is an academic community dedicated to the advancement of learning and development of its students. The University supports the right of all students to be treated with respect and dignity so they can pursue their academic goals in a positive learning community. In support of this goal, the University is committed to a campus environment that values all individuals and groups, and to non-discrimination and equal opportunity for all persons without regard to sex, race, religion, color, age, national origin, sexual orientation, handicap/disability, or identification as a disabled and/or Vietnam era veteran. The University is also committed to the principles of affirmative action and acts in accordance with state and federal laws.

As a member of a higher education community, students have an obligation to conduct themselves in a manner that is compatible with the University's purposes as an institution of higher education. Each student is expected to be fully acquainted with all published policies, procedures, and regulations of the University and is held responsible for compliance with them. Furthermore, all members of the University community are expected to assume responsibility for creating an environment conducive to the educational mission and purpose of the University.

The policies and regulations as outlined in *The Code of Student Rights, Responsibilities, and Conduct* (hereafter referred to as *The Code*) have been established to ensure a positive educational experience for every student. As such, *The Code* serves as an official University document that outlines conditions and regulations considered essential to the effective functioning of the University.

The student conduct process at Youngstown State University adheres to procedural due process and is intended to be part of the educational process at the University. This student conduct process provides a forum for the impartial and expedient resolution of misconduct in the University community and encourages students to live responsibly and be accountable for their actions. The student conduct process is based on the University's commitment to developing integrity, respect, and responsibility among all students. *The Code* is available online at the YSU website or in hard copy from the Office of Student Life.

Student Fees, Charges, and Fines 2008–2009

Tuition

Instructional Fee	
Graduate students	
1–11 credits	$307.12 per credit
12–16 credits	$3685.44 per semester
Over 16 credits	$307.12 per credit
Master of Public Health program	$500.00 per credit
Master of Fine Arts program	$460.00 per credit
Graduate Workshops Special Rates	
In-state participants	$129.32 per credit
Regional service area participant	$192.92 per credit
Nonregional service area participant	$260.76 per credit
General Fee (all students)	
1–11 credits	$47.00 per credit
12–16 credits	$564.00 per semester
Over 16 credits	$43.00 per credit
Information Services Fee (all students)	
1–11 credits	$9.54 per credit
12–16 credits	$114.48 per semester
Over 16 credits	$9.54 per credit
Nonresident Tuition Surcharge	
Regional Service Area	
Graduate students	
1–11 credits	$8.34 per credit
12–16 credits	$100.08 per semester
Over 16 credits	$8.34 per credit
Outside Regional Service Area	
Graduate students	
1–11 credits	$8.34 per credit
12–16 credits	$100.08 per semester
Over 16 credits	$8.34 per credit

Housing Charges

Room and Board	**$7090.00 per academic year**
To be paid as follows:	
Fall semester	$3,545.00
Spring semester	$3,545.00
Single Room Surcharge	**$840.00 per semester**
Security Deposit (Paid First Semester)*	**$200.00**
Voluntary Board Plan (Students Not Residing in University Housing)	
14-meal-per-week plan with $115.00 Pete's Points	$1,135.00 per semester
10-meal-per-week plan with $150.00 Pete's Points	$925.00 per semester
5-meal-per-week plan with $150.00 Pete's Points	$545.00 per semester

* If the resident does not stay through spring semester, the $200 deposit is forfeited.

Special Purpose Fees and Service Charges

Application fee, graduate	$30.00
Background check fee	$28.00
Check replacement fee	$25.00
Child preschool laboratory fee	$150.00 per semester
Credit by examination	$20.00 per credit
Duplicate diploma fee	$40.00
Fingerprinting fee (web check)	$38.00
Late graduation application (after third week of the semester)	$35.00
ID replacement fee	$20.00
Inoculation fee—hepatitis series	$125.00
Inoculation fee—measles, mumps, rubella	$50.00
Inoculation fee—meningitis	$75.00
Inoculation fee—tetanus	$15.00
International graduate student credentials fee	$45.00
Technology/laboratory materials fee	
Level 1	$35.00 per course
Level 2	$50.00 per course
Level 3	$65.00 per course
Level 7	$20.00 per course
Level 8	$85.00 per course
Gross anatomy	$187.00 per course
Late application for graduation (after third week of the term)	$38.50
Late class add fee	$25.00 per course
Late payment fee	$25.00
Late registration fee	$50.00
Library and Graduate Studies Microform Processing	$65.00
Parking permit	$68.00 per semester
Parking permit—summer term only	$25.00
Parking without permit	$4.00 per day
Peace Officer Training Academy fee	$300.00 per semester
Performance music (plus tuition)	$75.00 per credit
Proficiency examination	$45.00 per course
Registration reinstatement fee	$25.00
Returned check or credit card charge	$30.00
Rich Autism Center preschool program	$125.00 per week
Student health insurance**	
Ages 29 and under	
Fall 2008	$446.00
Spring 2009, Summer 2009	$546.00
Summer 2009 only	$302.00
Ages 30 and over	
Fall 2008	$621.00
Spring 2009, Summer 2009	$678.00
Summer 2009 only	$421.00
Student locker rental (paid at Kilcawley Center)	$20.00 per year
Testing fee—MAT	$75.00
Thesis binding	$25.00
Transcript rush fee (same day, in person, or U.S. mail)	$10.00

** More information is available at http://healthclinic.ysu.edu, or at the Student Health Clinic in Kilcawley House.

Transcript rush fee (overnight express)	$25.00

Fines

Library/Curriculum Center

Overdue book	$.10 per day
Overdue reserve book	$.55 per day
Unauthorized removal of closed reserve book	$.55 per day

Each library/curriculum center fine per day is to maximum of $11.00 plus cost of book replace ment, including a $10 processing charge.

Parking Violations

Class I—Minor Violations	
First offense	$25.00
Second offense	$30.00
Third offense	$35.00
Class II—Major Violations	$100.00
Class III—Legal Violations	$150.00

The University reserves the right to change any fee without notice.

Payment of Tuition and Fees

Tuition and fees for the semester are due on or before the date shown on statement of account. Statements are available to be viewed and printed online at MyYSU portal. Students may pay their bills online, in person at the payment windows on the second floor of Meshel Hall, or by mail to the Office of Student Accounts and University Receivables. Students may pay by check (payable to Youngstown State University) or with Visa, MasterCard, or Discover Card. A payment plan that allows students to spread payments over a longer period is also available. Payment plan enrollment must be processed online.

Graduation and transcripts will be held until all University bills are paid. Any balance owed must be sent to Student Accounts and University Receivables no later than the due date on the payment notice to avoid assessment of a late penalty fee.

Enrollment at the University creates an implied contract between the student and YSU. If the student chooses not to attend the University, he or she must officially withdraw from all courses no later than the 18th day of the semester to be eligible for a refund or reduction of charges. Nonattendance of class or notification to the instructor or department does not constitute an official withdrawal.

If the student fails to withdraw by the refund deadline, the student must pay all charges in full. If no effort is made to pay the outstanding bill, collection measures will be implemented.

Fees

Tuition

The sum of the graduate instructional fee, the general fee, and the information services fee is the tuition for a student.

Graduate Instructional Fee

This fee is assessed of all students each semester. The rate is per academic semester hour of credit of registration. This fee supplements the state subsidy and is revenue of the University's Educational General Fund.

General Fee

This fee is also assessed of all students each semester; the rate depends upon the number of credits for which the student is registering. This fee is for noninstructional services, such as Kilcawley Center, intercollegiate athletics, intramural sports, performing artists and lecture programs, Student Government, and Career Services.

Auditing Courses

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

Nonresident Tuition Surcharge

As stated, all students pay the instructional fee, the general fee, and the information services fee. Those students who are not legal residents of Ohio also must pay a surcharge. Students who are legal residents of the regional service area pay a lesser surcharge than do students who are legal residents of other areas. The regional service area includes 23 counties in New York, Pennsylvania, and West Virginia.

Performance Music Fee

This fee is in addition to the regular instructional fee. It is assessed to students taking music

lessons and applied on a per-credit basis.

Information Services Fee

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

Technology/Laboratory Materials Fee

This fee is designed to partially offset expenses associated with courses that make use of supplies, equipment, or personnel support beyond that associated with typical lecture courses. Examples include chemical supplies, engineering equipment, computers and software, and laboratory monitors.

Other Fees

Application Fee

A nonrefundable application fee must accompany the initial application for admission to the School of Graduate Studies and Research.

Late Application for Graduation Fee

There is a fee charged for late application for graduation to anyone who applies after the third week of the semester.

Late Registration Fee

A fee is charged to a currently enrolled student who fails to register for the next term at the assigned time.

Parking Permit Fee

A permit to park in YSU parking facilities will be issued to students and employees of the University upon payment of the fee. The fee is for the academic semester and 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 for resident hall residents only). The current *Driving and Parking Regulations* pamphlet and parking lot map should be consulted. A daily fee is charged to anyone without a permit who wishes to park in facilities designated for cash business. Persons other than employees and students who are on campus for a short period of time to conduct business may park in one of the visitors' lots if space is available. The parking permit fee is refundable only if the student returns the permit access card and current validation sticker prior to the end of the 100% tuition refund period. If a student completely withdraws, the permit access card and current validation sticker must be returned within five days of either the withdrawal date or the last date of the 100% tuition refund period—whichever is earlier—in order to obtain a refund for this fee.

Proficiency Examination Fee

A fee is charged for an examination provided by an academic department to determine a student's proficiency for some reason other than assignment of academic credit.

Registration Reinstatement Fee

A nonrefundable fee is charged to any student whose current registration is cancelled for any reason (including delinquent payment) and who is subsequently permitted to reregister. This fee is in addition to any other applicable fees, fines, or penalties. Registration in the same course(s) cannot be guaranteed since the course(s) may have closed in the meanwhile.

Service Charges

Check Replacement Fee

A nonrefundable fee is charged for each request to have a student refund check replaced.

Housing Charge

University housing is available for the academic year and summer terms. The residence contract includes room and a flexible meal plan. A security deposit is required. Payment and refunds are as scheduled in the housing contract. Meal tickets are also available for students who are not residents of University-owned housing.

Identification Card Replacement Charge

A charge is made for replacement of an ID.

Library & Graduate Studies Microform Processing

A charge is made for each dissertation submitted in fulfillment of graduation requirements.

Returned Check or Credit Card Charge

A charge is made to anyone whose check or charge card is returned unpaid by the bank. Any late payment fee applicable is also assessed. Failure to pay billing of return check and/or charge within six days and/or a second check/charge return will result in the University's refusal to accept this type of payment at any of its collection points and may subject the student to financial suspension for the term.

Student Locker Charge

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

Thesis Binding Charge

A charge is made for each copy of a thesis or dissertation bound by the Maag Library.

Transcript of Credits Charge

While no charge is made for each transcript issued, transcripts will not be issued for students or alumni with outstanding debts owed the University. Only a student may order a transcript; however, students are cautioned that most graduate and professional schools as well as many employers accept transcripts only if sent directly by the University. There is a charge for rush or overnight express requests.

Fines

Library Fines

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

a violation of state law and is punished as such.

Parking Violation Fine

Parking without a permit, parking in such a manner as to impede regular traffic flow, occupancy of more than one identified space (assuming lines are not obscured), and other offenses as identified in the *Driving and Parking Regulations* pamphlet will result in a citation issued to the student responsible for the vehicle (e.g., student driving parents' car). Payment of a fine removes the citation. Vehicles may be towed in certain cases. See *Driving and Parking Regulations* for detailed information.

Reduction/Refund of Fee Charges Upon Withdrawal

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

Effective Summer 2008, if a student is permitted to withdraw from the University or if a student reduces his or her academic load, a refund of the tuition charge, and the nonresident tuition surcharge (if applicable), shall be made in conformity with the following schedule for regularly scheduled courses:

Length of course	**100% refund**	**No reduction of charges**
6 weeks or more	thru the 18th day*	19th day and later
Less than 6 weeks	15% of course	more than 15% of course

Note: For a complete withdrawal from any term, all applicable fees, fines, and penalties will be deducted from any refunds. If fees were paid by scholarship, loan, or grant-in-aid, the appropriate credit will be issued to the fund from which the initial payment was made. Student accounts paid with financial aid awards may be subject to a financial aid repayment. No refunds will be issued until after the 18th day of the term.

If a withdrawal is after the prescribed time limits (as indicated above), all tuition and other applicable fees and charges are forfeited. All applicable fees, fines, and penalties due must be paid before the refund is paid.

Application for Involuntary Withdrawal

If a student withdraws for reasons beyond his or her control (e.g., illness, military service, job transfer, or shift change imposed by the employer that creates a direct conflict with the class schedule), the fee charges may be reduced in direct proportion to the number of weeks in attendance. An application for involuntary withdrawal can only be processed for courses in which the student has already received a grade of W (withdrawn). The aforementioned applications will only be considered for semesters falling within the immediately preceding year (three semesters). Appeals pertaining to semesters beyond this one-year time limit will not be accepted. All applications for involuntary withdrawal must be documented and are processed only by mail on forms provided by the Office of Student Accounts and Accounts Receivable. Address such correspondence to the Fees and Charges Appeals Board, c/o Office of Students Account and Accounts Receivable, Youngstown State University, One University Plaza, Youngstown, OH 44555. The decision of the Board is final and not subject to reappeal.

* 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.

State Residency Status

Place of residency for tuition purposes will be determined at the time of admission or readmission by the Office of Recruitment and Admissions on the basis of the residency rules stated in this section and information supplied on the Application for Admission form.

If the student has any questions about appropriate classification, at the time of application, or any time thereafter, it is the student's responsibility to immediately bring it to the attention of the Office of Recruitment and Admissions for review, as changes to resident status cannot be made retroactive if supporting documentation is received after the first day of the requested semester. Charges may be made to any student improperly classified as an Ohio resident.

Resident Status Appeal

Appeal for a change in residency classification should be made in writing to the Office of Recruitment and Admissions. The Office may require the student to complete an Application for Nonresident Tuition Surcharge Exemption form. A decision will be sent in writing to the student, who may then appeal the classification in a personal interview.

The student may request the Office of Recruitment and Admissions to arrange an appearance before the Residence Classification Board. Such appearances ordinarily occur within two weeks of the request, if possible. The Residence Classification Board's appellate decision is final.

Ohio Student Residency for State Subsidy and Tuition Surcharge Purposes

A) Intent and authority:

1) It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the State of Ohio primarily for the purpose of receiving the benefit of a state-supported education.

2) This rule is adopted pursuant to Chapter 119 of the revised code, and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the revised code.

B) Definitions for purposes of this rule:

1) A "resident of Ohio for all other legal purposes" 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 welfare benefits, and who may be subjected to tax liability under section 5747.02 of the revised code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be, or allowed himself or herself to remain, a resident of any other state or nation for any of these or other purposes.

2) "Financial Support" as used in this rule shall not include grants, scholarships, and awards from persons or entities who are not related to the recipient.

3) An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college, or private medical or dental college, which receives a direct subsidy from the State of Ohio.

4) In determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, "domicile" is a person's permanent place of abode; there must exist a demonstrated intent to live permanently in Ohio, and a legal ability under federal and state law to reside permanently in the state. For the purpose of this policy, only one domicile

may be maintained at a given time.

5) 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 residency status if that individual has the current legal status to remain permanently in the United States.

C) Residency for subsidy and tuition surcharge purposes:

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

1) A dependent student, at least one of whose parents or legal guardian has been a resident of the State of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.

2) A person who has been a resident of Ohio for the purpose of this rule for at least twelve consecutive months immediately preceding his/her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.

3) A dependent child 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 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 or spouse of the student is employed full-time in Ohio.

b) A copy of the lease under which the parent 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 or spouse is the owner and occupant; or if the parent or spouse is not the lessee or owner of the residence in which he/she has established domicile, a letter from the owner of the residence certifying that the parent or spouse resides at that residence.

D) Additional criteria that 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 state welfare benefits; and/or

d) If a person has an Ohio 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 welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation); and/or

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 welfare benefits (see paragraph D-2-a of this rule).

E) Exceptions to the general rule of residency for tuition surcharge purposes:

1) A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.

2) A person who enters and currently remains on active duty status in the United States military service while a resident of Ohio for all other legal purposes, and his/her dependents, shall be considered a resident 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/her dependents, shall be considered residents of Ohio for these purposes.

4) A person who is transferred by his/her 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/her dependents, shall be considered a resident 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/her tax liability to the state of Ohio for at least the tax year preceding enrollment.

F) Procedures:

1) A dependent person classified as a resident of Ohio for these purposes under the provisions of section C-1 of this rule and who is enrolled in an institution of higher education when his/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/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 C-3, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than twelve months after accepting employment and establishing domicile in Ohio.

4) Any person once classified as a nonresident, upon the completion of twelve consecutive months of residency, must apply to the University for reclassification as a resident of Ohio for enrollment if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his/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 University that may require, among other things, the submission of documentation regarding the sources of a student's actual financial support.

5) Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification. Ohio

residency status will not be granted retroactively.

6) Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his/her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence that it may deem necessary to a full and complete determination under this rule.

Financial Assistance

Assistantships

Applications for assistantships must be accompanied or preceded by application for admission to the School of Graduate Studies and Research. First-year international graduate students with superior credentials and/or prior academic study in the United States may apply for graduate assistantships.

The assistantship program is predicated on the idea that graduate students, given an opportunity to assist the faculty, provide a service to the institution and also gain valuable experience through this work in association with the faculty. Appointments to assistantships are made by the dean of Graduate Studies and Research only upon recommendation by the student's academic department. In those instances in which the student indicates acceptance of an assistantship award prior to April 15, the student may not accept another appointment without first obtaining formal release for this purpose.

Graduate assistants may be assigned to instructional, research, and/or other academic duties as determined by the department in which the assistant is appointed and as approved by the dean of Graduate Studies and Research. Assistantships require 20 hours per week, including exam week, for duties to be assigned by the department chair. Graduate assistants assigned to classroom or laboratory duties are under the direct supervision of a full-service faculty member who will retain full responsibility for the maintenance of high academic and pedagogical standards. The oral English proficiency of each graduate assistant providing classroom-related services, including laboratory assistants, will be determined by an interview with and certification by the department chair. In the event the department chair cannot certify that the student is proficient in English, the student will be required to satisfactorily complete remedial courses before being assigned instructional duties. International students must also submit a score of the Test of Spoken English (TSE) to the School of Graduate Studies and Research. TSE scores in the range of 45–60 (Foreign Service Institute scale level 2 to 3) are normally considered the minimally accepted standards. In the absence of the TSE, international students may be required to undergo other testing.

Graduate students who are in provisional status because of undergraduate coursework deficiencies cannot be appointed as teaching assistants until the required coursework is completed. Such students can be considered for research appointments. Exceptions to this policy may be considered and must be reviewed and approved by the Dean of the School of Graduate Studies and Research.

Research assignments afford the assistant the opportunity to participate in authorized faculty or University research programs.

Normally, assistantships are awarded for a period of two semesters, beginning with the fall semester. To remain eligible for the assistantship, an appointee must discharge his or her duties satisfactorily and maintain good academic standing. An appointee must maintain enrollment in at least 18 semester hours of degree-credit coursework for the regular academic year and not fewer than nine semester hours of degree-credit coursework for any one semester. (With the advisor's approval, graduate coursework that is not part of the graduate assistant's degree program may be counted toward the 18-semester-hour minimum for the assistantship.) Approval to carry more than 12 semester hours or fewer than nine semester hours in any semester will be granted by the dean of Graduate Studies and Research only upon clear justification from the student's academic program department. (Exception: For a teaching assistant who is the instructor of record and has a teaching load of five semester hours or more, the minimum required enrollment is six semester hours. For a teaching assistant who is the instructor of record and has a teaching load of four se-

mester hours or less, the minimum required enrollment remains at nine semester hours.)

Graduate assistants shall not hold other full-time employment but may accept occasional or temporary employment outside the University during the term of the assistantship, subject to the approval of the department chair or the program director of the department. Other employment on the YSU campus requires the approval of the dean of Graduate Studies and Research.

Each assistantship carries a stipend and remission of instructional fees for up to 12 semester hours per semester, including the nonresident tuition surcharge and music performance fee, if applicable. It does not cover other fees that may be applicable, such as the general fee, technology fee, or charges for parking permits. Assistantships do not cover (1) courses taken on an audit basis, (2) undergraduate courses, or (3) graduate coursework that is not related to the degree program. The same remission will be applicable for the summer semester up to 12 semester hours for those who have held an assistantship during each of the two preceding semesters. The remission may be used for thesis hours taken in the summer, if the thesis advisor is available for frequent consultation in the summer and arrangements are made with the department for the workload credit given the thesis advisor to be charged against a semester of the regular academic year rather than against summer semester. Financial assistance will be terminated once the student has completed degree requirements.

Further information on assistantship stipends may be obtained from the School of Graduate Studies and Research.

Graduate Assistant/Intern

A special category of graduate assistant, designated as a graduate assistant/intern (GA/I), provides opportunities for University offices or departments, community companies or agencies, or other appropriate external sponsors to involve graduate students as academic assistants/interns in "real life" experiences related to their fields of study. The department/agency of service will provide a stipend to the University, which will be paid to the student through the normal stipend process. Remission of instructional fees will be made in the manner described above under Assistantships. The GA/I will be expected to work in the internship work environment 20 hours per week. Eligibility rules will be the same as for regular graduate assistants, except that the student must be a newly admitted graduate student at YSU. The GA/I will normally be eligible to remain funded for two years in order to complete the program of study.

Further information about graduate assistant/intern appointments may be obtained from the School of Graduate Studies and Research.

Cushwa/Commercial Shearing Graduate Fellowships

Cushwa/Commercial Shearing Graduate Fellowships are available for selected outstanding graduate students in YSU's master's degree programs in Science, Technology, Engineering, and Mathematics (STEM). Upon successful completion of the program, Cushwa Fellows will be awarded a master's degree in their field of study. The Charles B. Cushwa, Jr./Commercial Shearing Inc. Graduate Student Scholarship/Fellowship Fund was established in 2003 to provide students the opportunity to pursue advanced degrees, get career experience, and offset some of the financial challenges of continuing their education. In addition, the community will benefit from these scholars interacting with local businesses and bringing the resources of the University into the local economy.

Fellows are expected to devote 20 hours per week for 16 weeks per semester (12 weeks in summer) to fellowship duties. They are assigned to a research or other appropriate work experience that is related to the academic program in which they are enrolled. Fellows are normally expected to complete at least one semester as a graduate intern at a company or industry site related to their

degree program. Cushwa/Commercial Shearing Fellows must maintain enrollment in at least 18 semester hours of degree-credit coursework for the regular academic year (fall and spring), not fewer than nine semester hours of degree-credit coursework during each fall and spring semester, and not fewer than six semester hours in the summer. To remain eligible, fellows must discharge their duties satisfactorily and maintain good academic standing in their coursework. Appointments are made annually based on satisfactory performance.

The stipend is $15,000 for the academic year and summer (three semesters). Instructional fees, the nonresident tuition surcharge, and other academic fees will be remitted. Normally, the Cushwa/Commercial Shearing Fellow receives an appointment for two years, including summers. An application for a Cushwa Fellowship should be submitted with the initial application for admission to the School of Graduate Studies and Research or as soon as the student is advised to do so by the graduate faculty advisor. As part of the application process, applicants must submit an official Graduate Record Examination (GRE) score report (regardless of whether or not the GRE is required for the student's graduate program). Contact the School of Graduate Studies and Research for the current year's deadline.

Federal Financial Aid

Graduate students enrolled in degree programs at YSU may apply for federal financial aid in the Financial Aid and Scholarships Office, 202 Meshel Hall. (See Full-Time Status as it relates to eligibility for federal financial aid.)

On-Campus Student Employment

Graduate students enrolled in degree programs are eligible for on-campus student employment. For information on how to apply, contact the Office of Student Life, Kilcawley Center.

Scholarships

Youngstown State University makes funds available to provide scholarships and grants-in-aid to eligible graduate students. An application must be submitted for each semester for which a scholarship or grant-in-aid is sought. Applications for a given semester are accepted during the first through the tenth day of classes (Monday through Friday) of the preceding semester. Whenever there are more eligible applicants than funds available, awards will be made on the basis of grade point average. Applications received after the deadline will not be considered. Minimum grade point averages, application deadlines, award levels, and eligibility criteria are subject to change without notice. Detailed information on scholarships and grants-in-aid is available at the School of Graduate Studies and Research.

Fellowships and Awards

Earl E. Edgar Memorial Scholarship Fund

The Earl E. Edgar Memorial Scholarship Fund was established in 1980 by friends and family of the late Dr. Earl E. Edgar, vice president for Academic Affairs at YSU. This scholarship provides an annual $750 award to a graduate student at YSU studying the humanities. Selection of the recipient will be based on financial need and academic excellence. The selection committee comprises the deans of the School of Graduate Studies and Research and the College of Arts and Sciences.

Dr. Eugene D. Scudder Graduate Student Teaching Award

The Dr. Eugene D. Scudder Graduate Student Teaching Award is a cash award given to a chemistry graduate student for outstanding performance in teaching.

Dr. James A. Reeder Graduate Scholarship Award

The Dr. James A. Reeder Graduate Scholarship Award is given to a current chemistry graduate student who will be enrolled at YSU at least part time during the next academic year.

Gertrude E. Hendricks Family Life Scholarship

The Gertrude E. Hendricks Family Life Scholarship is available each year to a graduate student whose undergraduate major has afforded preparation for an effective contribution in the family life area.

Dr. Robert A. DiGiulio Scholarship

The Dr. Robert A. DiGiulio Scholarship, a grant of $500, is awarded each year to a student selected on the basis of the following criteria:

- A graduate student in the counseling program
- An earned grade point average of at least 3.0
- A nontraditional female student (25 years old)
- A promising student with evidence of need

Application forms may be obtained from the Department of Counseling and Special Education. The deadline for submission of applications is April 15.

Graduate Student Representation

Within the first month of the fall semester, the Graduate Studies Committee of each college will ensure that a graduate student and an alternate from that college are elected to represent graduate student interests on the College Graduate Studies Committee. The six graduate student representatives to the six College Graduate Studies Committees also constitute the Graduate Dean's Graduate Student Advisory Council (GSAC).

Those eligible to be members of GSAC are full-time graduate students as defined in the graduate catalog, graduate assistants, or part-time students who have completed 12 or more hours of graduate credit, excluding transfer credit, before the fall semester in which the representatives are chosen.

The GSAC will choose from its own membership

- a graduate student member of Graduate Council; and
- a graduate student member to serve on each of the following graduate committees: Policy, Curriculum, and Assistantship Allocation.

The GSAC will recommend to Council three graduate student members of the Grievance Committee, at least one of whom comes from GSAC.

Graduate students serving on graduate committees shall be voting members of the committees on which they serve. Members of GSAC have the right to participate in graduate faculty meetings without voting. Vacancies in GSAC will be filled by Graduate Council. A vacancy will occur automatically if a student representative resigns his or her position or if he or she is not registered for courses carrying graduate credit. The GSAC may request Council to declare a vacancy if the student is delinquent in his or her duties. If there are no available students from a given school, the Council may fill the vacancy with a student from another school.

Course Numbering System, Abbreviations, and Reference Marks

Courses listed in this bulletin are of two types. Courses in the 5800 series are upper-division undergraduate courses in which the graduate student may enroll for graduate credit with the approval of the advisor.

Courses in the 6900- and above series are graduate-level courses normally open only to graduate students but which undergraduates may elect under conditions outlined in Graduate Courses for Undergraduates. Courses in the 8100 series are doctoral-level courses.

The abbreviation *s.h.* at the end of a course description stands for "semester hours of credit." Thus, credit for a three-hour, two-semester course is indicated by the notation 3+3 s.h., meaning three semester hours of credit each semester.

Prereq. stands for "prerequisite."

Comma. Ordinarily, a comma between numbers (e.g., 6907, 6908) indicates that the course extends throughout the year, but that credit toward graduation is given for each course individually.

En dash. An en dash between numbers (e.g., 6907–6908) indicates that credit is not given toward graduation for the work of the first semester until the work of the second semester is completed, except when special permission is granted by the chair of the department in which the course is given. The first semester of such a course is prerequisite to the second.

Graduate Programs

Doctor of Education in Educational Leadership

Department Chair

Gunapala Edirisooriya
4103 Beeghly Hall
(330) 941-1437
gedirisooriya@ysu.edu

Program Coordinator

Richard C. Baringer
4110 Beeghly Hall
(330) 941-1575
rcbaringer@ysu.edu

Program Description

The Doctor of Education program in educational leadership provides terminal professional preparation for public and nonpublic school administrators in the northeastern Ohio and western Pennsylvania areas served by the University. The program is designed to serve administrative personnel in P–12 schools and central and county office positions.

The program focuses on the preparation of professionally committed practitioners who reflect the current state of knowledge and best practice in educational leadership. Central to the preparation of such professionals are the refinement and transmission of competencies in the areas of scholarship, instruction, leadership, management, external relations, and personal development.

The Doctor of Education program is administered by the Department of Educational Foundations, Research, Technology, and Leadership in the Beeghly College of Education.

Faculty Research Interests

Richard C. Baringer, Ed.D., Assistant Professor
Superintendency; school and community relations; special education administration

Robert J. Beebe, Ed.D., Professor
Administrative theory; human resources administration; leadership development

Gunapala Edirisooriya, Ph.D., Professor and Chair
Information systems; research design; statistics

Charles Vergon, J.D., Professor
Education law; policy development; educational change

Accreditation

Accreditation for the Ed.D. program in educational leadership has been granted by the North Central Association of Colleges and Schools and from the National Council for the Accreditation of Teacher Education.

Application Procedure

Program information may be obtained from the Department of Educational Foundations, Research, Technology, and Leadership. Application and financial aid information may be obtained

from the School of Graduate Studies and Research. All application materials must be sent to the School of Graduate Studies and Research. Please confirm all deadlines with the School of Graduate Studies and Research.

Admission Requirements

Acceptance into the Ed.D. program reflects superior qualifications. Admission is by cohort, based upon a competitive evaluation of applications by the doctoral program faculty of the Department of Educational Foundations, Research, Technology, and Leadership. Ethnic and gender diversity among students is desirable. In addition to the admission requirements of the School of Graduate Studies and Research, applicants must meet the following departmental standards.

Professional Potential

- Possession or qualification for certification or licensure as an educator in the state in which they wish to practice
- Completion of at least three years of teaching experience
- Completion of at least two years of administrative experience or demonstration of exceptional leadership skills in schools

High Academic Achievement

- Completion of an accredited master's degree program with a minimum grade point average in graduate study of 3.5
- Scores at or above the 50th percentile on the general test of the Graduate Record Examination. This test must have been completed within the past five years. Applicants must plan to register for this examination in advance. Provisional admission may be granted to otherwise outstanding applicants who fail to achieve the cutoff scores.

Professional References

Presentation of three letters of reference attesting to the applicant's good moral character, educational leadership and management potential, professional plans, success in teaching, professional commitment, interpersonal skills, and special professional capabilities.

Narrative

- Submission of two 500- to 750-word essays: one personal essay and one essay on a professional topic
- Submission of a proposed timetable for completing the program

Faculty Interview

- Completion of a writing sample on campus as part of the interview process
- A personal interview with the doctoral faculty of the Department of Educational Foundations, Research, Technology, and Leadership for applicants who are successful in an initial screening based upon the standards previously listed
- Approval of the applicant by the doctoral faculty

Degree Requirements

Students admitted to the doctoral program in educational leadership must enroll for a minimum of six semester hours each academic year. Students who fail to comply will have to be readmitted to the program upon the Doctoral Admission Committee's recommendation.

Students must also meet with advisors each semester for advising purposes.

Cohort Activities

Beginning with an orientation session shortly after admission and once each semester, stu-

dents are required to participate in scheduled cohort activities. These activities provide an opportunity for students to establish and maintain supportive, informal relations among themselves and with the program faculty. The cohort activities also provide a setting for short seminars, colloquia, simulations, journal writing, and study sessions relating to important areas of professional development.

Residency

Concentrated effort, continuing peer and faculty interaction, and scholarly reflection relatively free from distraction are needed if the student is to develop a considered and mature vision of the profession. Each student is required to meet a minimum residency requirement of enrollment for 18 semester hours during the period of three consecutive semesters, including summer session(s). No Ed.D. student may enroll for more than six semester hours unless his or her advisor approves such enrollment. Dissertation credits may not be used to satisfy the residency requirement.

Coursework

The coursework required for the Ed.D. in educational leadership consists of a minimum of 69 semester hours, to include dissertation, of graduate study beyond the master's degree. While completion of YSU's approved 33-semester-hour M.S. in Education in educational administration is not required for admission, students admitted to the program will be required to complete the equivalent coursework as a prerequisite to completing doctoral coursework. A minimum of 39 semester hours of graduate credit beyond the master's degree, exclusive of dissertation credits, must be earned at YSU. Students can transfer up to 18 semester hours of post-master's work into the doctoral program. Transfer credits may be accepted within the policies of the School of Graduate Studies and Research.

See the Courses section of this catalog for required prerequisite study for each course. Certain courses reflect the particular vision of the YSU program and are to be completed at YSU. This information is noted in parentheses. Doctoral-only courses bear numbers of 8100 and above.

Educational Leadership Core		15 s.h.
EDAD 8122	Leadership in Education	3 s.h.
EDAD 8125	Educational Politics and Policymaking in the United States	3 s.h.
EDAD 8140	Seminar in Administrative Theory	3 s.h.
EDAD 8155	Seminar in Current Educational Issues	3 s.h.
FOUN 8102	Perspectives on Leadership Among Diverse Populations	3 s.h.

Educational Research Core		15 s.h.
EDAD 8185	Seminar in Educational Research/Dissertation Proposal	3 s.h.
FOUN 8104	Research Strategies in Educational Administration	3 s.h.
FOUN 8110	Theories of Inquiry	3 s.h.
FOUN 8112	Qualitative Research for Educators	3 s.h.
FOUN 8114	Advanced Research Design and Statistics	3 s.h.

Educational Leadership Electives	12 s.h. minimum as approved by advisor
Teaching and Learning Electives	9 s.h. minimum as approved by advisor

Professional Skill Development		3 s.h.
EDAD 8100	Professional Skill Development Seminar	3 s.h.

Field Experience in Educational Leadership (choose one)		3 s.h.
EDAD 7022E	Clinical Experience: Elementary Principalship	3 s.h.
EDAD 7022M	Clinical Experience: Middle School Principalship	3 s.h.
EDAD 7022S	Clinical Experience: Secondary Principalship	3 s.h.

EDAD 7050	Clinical Experience: Superintendency	3 s.h.

Dissertation Study	12 s.h. minimum
EDAD 8190 Dissertation Study	12 s.h.

Comprehensive Examinations

Comprehensive examinations consist of a written examination covering six competencies and an oral examination assessing the overall suitability of the individual as a leader in schools or school systems. Satisfactory completion of these examinations qualifies the student as a candidate for the Ed.D. degree and signifies readiness to begin the dissertation study.

Special Notes

The student's program must include the 57 semester hours of coursework in the doctoral program (a minimum of 39 semester hours of YSU graduate credit), exclusive of dissertation credits.

Departmental policies and procedures governing the operation of the Ed.D. program are set out in the program *Administrative Handbook* and *Student Handbook.*

Graduate Studies policies concerning transfer credits, time limits, and other academic matters must be followed. See the General Information of the *Graduate Bulletin* and graduate faculty minutes for current information.

With appropriate selection of courses, this program may provide licensure in either principalship or superintendency or both.

Doctor of Physical Therapy

Department Chair

Nancy Landgraff
B086 Cushwa Hall
(330) 941-2703
nlandgraff@ysu.edu

Program Description

The Doctor of Physical Therapy program is a professional program for the preparation of physical therapists. The program is an entry-level, postbaccalaureate program consistent with the accreditation requirements of the Commission on Accreditation in Physical Therapy Education (CAPTE). Admitted on a competitive basis, students enter the three-year program of professional coursework and clinical education affiliations.

Faculty Research Interests

Weiqing Ge, Ph.D., M.S., Assistant Professor
Spinal characteristics; muscle stiffness; responses of paraspinal muscle spindles to forces in animal models

Suzanne M. Giuffre, Ed.D., M.S., P.T., P.C.S., Assistant Professor
Clinical education; pediatric neurology; autism

Marleen Iannucci, Ph.D., P.T., Associate Professor
Discourse of health care and chronic illness; interdisciplinary clinical decision-making

Nancy C. Landgraff, Ph.D. P.T., Associate Professor and Chair
Functional deficits in carotid artery disease; stroke outcomes; rehabilitations interventions in acute stroke

Kenneth E. Learman, Ph.D., P.T., O.C.S., C.O.M.T., F.A.A.O.M.P.T., Assistant Professor
Physical therapy interventions for the spine

Cathy Bieber Parrott, M.S., P.T., Assistant Professor
Research methodology and program outcomes; health outcome measures

Admission Requirements

Youngstown State University students may be provisionally accepted into the D.P.T. program as undergraduates during the summer semester of their senior year. They are not, however, admitted as graduate students until their application for graduate program admission has been accepted and approved and they are admitted to the School of Graduate Studies and Research. Under no circumstances will this admission take place prior to their receipt of the bachelor's degree.

In addition to the overall GPA (3.0 minimum), priority will be given to applicants with a 3.0 or higher in the following prerequisite courses (with a C- or better in each): anatomy, biology, chemistry, physics, physiology, and psychology. In addition, applicants must have completed or be scheduled to complete an undergraduate degree no later than the end of the first fall semester in the professional program and meet minimum School of Graduate Studies and Research requirements. A satisfactory score on the Graduate Record Examination (general test) is also required.

Degree Requirements

Undergraduate students admitted to the program are not permitted to progress past the first fall semester of the program unless they have received the undergraduate degree and have been admitted to the School of Graduate Studies and Research. There are four areas of program requirements that must be satisfactorily completed to be granted the D.P.T. degree: professional coursework, professional conduct, clinical affiliations, and critical inquiry project. Students not making satisfactory progress may be required to repeat that year of the program or be dismissed based on established standards.

There are three levels of coursework in the D.P.T. program.

Level I: Foundation Courses (waiveable)		**12 s.h.**
BIOL 5868	Gross Anatomy I and lab	4 s.h.
BIOL 5869	Gross Anatomy II and lab	4 s.h.
PHYT 5800	Pathology	4 s.h.
Level II: Core Courses		**92 s.h.**
PHYT 8901	Clinical Decision Making I	6 s.h.
PHYT 8902	Functional Anatomy	3 s.h.
PHYT 8903	Language, Culture, and Health	2 s.h.
PHYT 8904	Clinical Education I	4 s.h.
PHYT 8905	Clinical Decision Making II	6 s.h.
PHYT 8906	Critical Inquiry I	1 s.h.
PHYT 8907	Special Topics: Pediatrics	3 s.h.
PHYT 8908	Legal and Ethical Issues in Physical Therapy	2 s.h.
PHYT 8909	Clinical Decision Making III	6 s.h.
PHYT 8910	Critical Inquiry II	2 s.h.
PHYT 8911	Special Topics: Geriatrics	2 s.h.
PHYT 8913	Management and Leadership in Physical Therapy	2 s.h.
PHYT 8914	Clinical Education II	4 s.h.
PHYT 8915	Clinical Decision Making IV	6 s.h.
PHYT 8916	Critical Inquiry III	2 s.h.
PHYT 8918	Professional Issues	2 s.h.
PHYT 8919	Clinical Education III	4 s.h.
PHYT 8920	Clinical Education IV	12 s.h.
PHYT 8923	Community Applications	3 s.h.
PHYT 8924	Histology	1 s.h.
PHYT 8925	Applied Nueroscience for Physical Therapists	4 s.h.
PHYT 8926	Imaging and Lifespan Pathology for Physical Therapy	2 s.h.
PHYT 8927	Critical Inquiry I: Planning	2 s.h.
PHYT 8928	Healthcare Delivery	1 s.h.
PHYT 8929	Critical Decision Making III: Advanced Cases	3 s.h.
PHYT 8930	Clinical Decision Making IV: Advanced Cases	2 s.h.
PHYT 8931	Physical Therapy Specialty Applications	4 s.h.
PHYT 8932	Pharmacology for Physical Therapy	1 s.h.
Level III: Electives		**1–12 s.h.**
Students are not required to take electives to be granted the D.P.T. degree.		
PHYT 8921	Independent Study	1–6 s.h.
PHYT 8922	Research	1–6 s.h.
PHYT 8938	Special Topics in Physical Therapy	1-5 s.h.
Total Hours Required for Degree		**92-104 s.h.**

Master of Arts in American Studies

Program Director

Stephanie Tingley
245 DeBartolo Hall
(330) 941-2482
satingley@ysu.edu

Program Description

The Master of Arts in American studies program is designed to provide students with training in the content, theory, and methods for studying the history and culture of the United States and is designed to provide both training and experience in developing and implementing public humanities and educational programs. Special emphasis is placed on the application of the humanities in community, museum, and school settings. The program offers a core of courses in American studies, art and literature, history, working-class studies, and public practice, along with opportunities to work in local museums, schools, community projects, and other public humanities programs. Courses for the program have been drawn from five different colleges, providing students the chance to gain a truly broad and diverse education while deepening their knowledge of American culture. The M.A. in American studies also offers a teaching track designed for secondary school teachers.

Faculty Research Interests

L. Diane Barnes, Ph.D., Associate Professor of History
Nineteenth-century American history; historical editing

Donna M. DeBlasio, Ph.D., Associate Professor of History
Historic preservation; oral history

John M. Hazy, Ph.D., Assistant Professor of Criminal Justice
Community health; life course issues; teaching effectiveness

Thomas E. Leary, Ph.D., Assistant Professor of History
Historic preservation; labor and industrial history

Sherry Lee Linkon, Ph.D., Professor of English
Nineteenth- and 20th-century American studies; feminist criticism; popular culture; working-class studies

Gail Y. Okawa, Ph.D., Professor of English
Multicultural literacy; cultural rhetorics; sociolinguistics; teaching force issues

Martha Pallante, Ph.D., Professor and Chair of History
Early American studies; material culture; pedagogy

John Russo, Ed.D., Professor of Management
Labor relations; industry studies; working-class studies

James Schramer, Ph.D., Professor of English
Early American literature; technical writing; travel literature

Stephanie Tingley, Ph.D., Professor of English
American literature; film studies; pedagogy

Admission Requirements

Students must have an unrecalculated grade point average in undergraduate study of 3.0 (on a 4.0 scale). The bachelor's degree may be in any field, but students should have taken at least 12 hours of upper-division coursework in some combination of the arts, humanities, and/or social sciences.

Degree Requirements

Students must complete 36 semester hours of coursework at the graduate level.

Required Core Courses		**6 s.h.**
AMER 6900	Approaches to American Studies	3 s.h.
AMER 6990*	Independent Project in American Studies	3 s.h.

Practice Area		**6 s.h.**
Teaching Track		
Select two of the following courses:		
AMER 6970	Teaching Working-Class Studies	3 s.h.
AMER 6975	Interdisciplinary Teaching	3 s.h.
ENGL 6906	Teaching of Literature	3 s.h.
ENGL 6907	Teaching of Writing	3 s.h.
ENGL 6974	English Education Workshop	3 s.h.
ENGL 6976	Studies in English Education	3 s.h.
HIST 6950	Studies in the Teaching of History	3 s.h.
SED 6936	Fundamentals of Curriculum Development	3 s.h.
	or	
Public Practice Track		
AMER 6930	Humanities in the Community	3 s.h.
AMER 6980	Public Humanities Internship	3 s.h.

Focus Area **12 s.h.**

Students must select at least four courses (12 semester hours) from one of the following areas:

Cultural Studies		
ANTH 6910	Special Anthropological Problems	3 s.h.
ART 5881	Twentieth-Century Art to 1960	3 s.h.
ART 5882	Twentieth-Century Art from 1960	3 s.h.
ENGL 6915	Early American Studies	3 s.h.
ENGL 6917	Nineteenth-Century American Studies	3 s.h.
ENGL 6922	Twentieth-Century American Studies	3 s.h.
ENGL 6923	Working-Class Literature	3 s.h.
ENGL 6963	Perspectives in Multicultural Studies	3 s.h.
ENGL 6965	Studies in Film	3 s.h.

* The required course, AMER 6990 Independent Project in American Studies, requires each student to complete an independent project, such as a major research project, the design and promotion of a special exhibit at a museum, the development of an education program at a local library, or the completion of a planning project in cooperation with a local community development agency. Students will work closely with a committee of YSU faculty and community specialists to design and implement their individual projects.

FNLG 6900	Seminar	3 s.h.
HIST 5806	American Architectural History I	3 s.h.
HIST 5607	American Architectural History II	3 s.h.
HIST 6940	Oral History	3 s.h.
SOC 6900	Special Sociological Problems	3 s.h.

American History

FOUN 6905	Emotional Challenges in Historical Perspective	3 s.h.
HIST 6902	American Historiography	3 s.h.
HIST 6910	Readings in American History	3 s.h.
HIST 6912	Research Seminar in American Colonial History	3 s.h.
HIST 6913	Research Seminar in 19th-Century America	3 s.h.
HIST 6914	Research Seminar in 20th-Century America	3 s.h.
HIST 6941	American Material Culture	3 s.h.

Working-Class Studies

AMER 5850	Class and Culture	3 s.h.
AMER 6910	Introduction to Working-Class Studies	3 s.h.
AMER 6970	Teaching Working-Class Studies	3 s.h.
ENGL 6923	Working-Class Literature	3 s.h.
HIST 6939	Labor History	3 s.h.
HIST 6945	Interpretation and Preservation of the Industrial Built Environment	3 s.h.
MGMT 5845	Work in America	3 s.h.

Public History

CJUS 6960	Program Planning and Evaluation	3 s.h.
EDAD 6933	Educational Policy, Politics, and Change	3 s.h.
ENGL 6944	Document Design and Production	3 s.h.
ENGL 6953	Publications Issues and Management	3 s.h.
ENGL 6992	Professional Communication	3 s.h.
HIST 5810	Conservation of the Historic Built Environment	3 s.h.
HIST 6942	Introduction to Applied History	3 s.h.
HIST 6943	Practicum in Applied History	3 s.h.
HIST/ENGL 6946	Historical Editing	3 s.h.
HIST 6955	Museum Curation and Interpretation I	3 s.h.
HIST 6956	Museum Curation and Interpretation II	3 s.h.
HIST 6957	Special Topics in Applied History	3 s.h.

Distribution Requirement **12 s.h.**

Students must select four additional courses with at least one from each of the other focus areas above.

Master of Arts in Art Education

Program Director

Samuel Adu-Poku
4013 Bliss Hall
(330) 941-1866
sadupoku@ysu.edu

Program Description

The Master of Arts in Art Education program is designed to give art educators an opportunity to further develop artistic, pedagogical, scholarly, research, and leadership capabilities through in-depth study in studio and art education theory. The M.A. in Art Education provides scholarly and studio preparation for practicing teachers seeking professional development or for students interested in pursuing doctoral studies in art education. Special emphasis is placed on the extension of specialized studio experiences for art educators. Coursework combines studio practice with theoretical studies and research using an integrated approach to the exploration of studio, arts-based educational research, technological, historical, socio-cultural, and contemporary issues in art and art education.

Faculty Research Interests

Samuel Adu-Poku, Ph.D., Assistant Professor
Curriculum development; art education; multicultural education; Africentric studies

Phillip Chan, M.F.A., Professor
Drawing; painting; typography; graphic design

Dragana Crnjak, M.F.A., Assistant Professor
Painting; narrative work; drawing

David Gill, Ed.D., Assistant Professor
Postmodern curriculum and visual culture; digital technologies for art education

Greg Moring, M.F.A., Associate Professor
Sculpture; design

Michael Moseley, M.F.A., Professor
Ceramics; drawing; art history

Michelle Nelson, M.F.A., Assistant Professor
Typography; web design; font creation; type animation; visual theory

Patricia Sarro, Ph.D., Associate Professor
Art history; Pre-Columbian art; Latin American art

Stephanie Smith, Ph.D., Associate Professor
Art of the Roman Empire; art of the medieval period, Roman glass

Admission Requirements

In addition to the admission requirements of the School of Graduate Studies and Research, applicants must meet the following requirements:

- an undergraduate degree in art education and teacher certificate or professional teaching license;
- an unrecalculated cumulative undergraduate grade point average of 3.00 on a 4.00 scale;
- a minimum of two years of teaching experience preferred;
- successful completion of the Praxis III (NTE) or equivalent;
- three original letters of recommendation;
- 10-12 color images of personal artwork;
- a statement of purpose of approximately 250 words indicating intent and proposed area of specialization within art studio and capstone project (studio project track or graduate thesis track);
- a personal interview with the Program Director and the Graduate Program Committee in the Department of Art may be required.

In some cases, remedial coursework in undergraduate studio art may be required by the Graduate Program Committee in the Department of Art before regular admission is granted. To obtain regular admission, the candidate must make up deficiencies by taking the appropriate undergraduate studio courses without graduate credit.

Degree Requirements

Students must complete a minimum of 35 semester hours of graduate coursework consisting of a graduate studio core, an art education core, a graduate research course, an art history elective, and a capstone project in the form of either a written thesis or a graduate studio art exhibition. Research projects are supervised by art education and studio art faculty and should be oriented toward the scholarly integration of theory and practice. As a culminating experience, students must complete either an exhibition combined with a professional talk and an artist's statement, or an oral examination based on a written thesis.

Graduate Studio Core **18-23 s.h.**

The Graduate Studio Core consists of 18-23 semester hours (including the 5 s.h. final studio project) in two-dimensional and/or three-dimensional studies: drawing, painting, printmaking, photography, digital imaging, ceramics or sculpture. A minimum of 18 semester hours is required with at least 9 hours in a single graduate studio area of concentration. An additional 9 hours will be electives to be chosen from other graduate studio areas to provide breadth, as well as 5 semester hours of advanced capstone studio project for those interested in presenting a professional art exhibition as an exit requirement rather than the graduate research thesis option. Studio courses must be selected from more than one area of concentration.

List of Art Studio Courses

ART 6910/6911/6912: Studio Problems in Sculpture	3 s.h. (each course)
ART 6930/6931/6932: Studio Problems in Ceramics	3 s.h. (each course)
ART 6940/6941/6942: Studio Problems in Printmaking	3 s.h. (each course)
ART 6950/6951/6952: Studio Problems in Painting	3 s.h. (each course)
ART 5871*/5872*/5873: Topics in Advanced Photography	3 s.h. (each course)
ART 5861*/5862*/5863*: Studio Problems in Digital Imaging	3 s.h. (each course)
ART 6924*: Graduate Studio Project & Exhibition	5 s.h.

Graduate Art Education and Art History Core **14-19 s.h.**

The Graduate Art Education core consists of 14-19 semester hours (including the 3-5 variable credits in written thesis research). A minimum of 14 hours is required in art education theory, including an educational research course and an art history elective. In addition, those electing the

* Course currently under review.

thesis research option will complete 3-5 s.h. variable credits in field research and a written thesis based on individual need and research focus.

List of Art Education and Art History Courses		
ART 6920	Historical and Philosophical Foundations in Art Education	3 s.h.
ART 6921	Current Issues, Perspectives, and Curriculum Practices in Art Education	3 s.h.
ART 6922	Graduate Seminar in Art Education	1 s.h.
FOUN 6904	Introduction to Educational Research	3 s.h.
ART 6923	Graduate Art Thesis	3-5 s.h.
Art History Elective (choose one)		**3 s.h.**
ART 5840	Topics in Ancient Art	3 s.h.
ART 5881	Twentieth-Century Art to 1960	3 s.h.
ART 5882	Twentieth-Century Art from 1960	3 s.h.
Total Hours Required for Degree		**35-37 s.h.**

Master of Arts in Economics

Program Director

Ebenge Usip
307 DeBartolo Hall
(330) 941-1682
eeusip@ysu.edu

Program Description

The Master of Arts in economics program is designed to provide students with a background in applied economics which would lead to professional employment in business, government, or education. Special emphasis is placed on the use of data analysis to investigate public policy issues and business decisions. Supplemented by upper-level courses in mathematics, the program can also help prepare students for doctoral study in economics or related fields. Through choosing the thesis option, a well-prepared student may complete the master's degree in a single academic year by taking 12 semester hours in both the fall and the spring semesters and completing the thesis during the summer.

Faculty Research Interests

Ou Hu, Ph.D., Assistant Professor
Financial markets; international finance; asset pricing

Joseph Palardy, Ph.D., Assistant Professor
Macroeconomics; time series econometrics

Dennis Petruska, Ph.D., Professor
Financial markets; macroeconomics; monetary theory

Tod Porter, Ph.D., Professor and Chair
Labor markets; school finance; computer-aided instruction

Teresa Riley, Ph.D., Professor
Labor economics; health care financing; economics education

Yogesh Uppal, Ph.D., Assistant Professor
Applied microeconomics; applied econometrics; public economics

Ebenge Usip, Ph.D., Professor
Econometrics; time series analysis and forecasting; mathematical economics

Yaqin Wang, Ph.D., Associate Professor
Futures markets; behavioral finance

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, applicants must have completed at least one course in each of the following areas: principles of microeconomics, principles of macroeconomics, statistics, and calculus. Students who do not meet the requirements may be admitted on a provisional basis.

Nonthesis Option

Students must complete 30 semester hours of graduate credit with a grade point average of 3.0 or higher for the M.A. in economics. The requirements for the degree include the following core courses plus three electives that account for a total of nine semester hours.

The core courses in the program include the following:

ECON 6904	Quantitative Methods	3 s.h.
ECON 6912	Microeconomic Theory	3 s.h.
ECON 6922	Macroeconomic Theory	3 s.h.
ECON 6939	The Economics of Financial Markets and Institutions	3 s.h.
ECON 6945	Public Finance	3 s.h.
ECON 6976	Econometrics	3 s.h.
ECON 6998	Research Seminar	3 s.h.

The paper produced in the research seminar will be reviewed by a committee of three graduate faculty from the Department. Electives are 6900-level graduate courses in the Department that are included in the M.A. program. One elective may be either a 5800-level economics swing course or a graduate-level course taught outside the Department that has been approved by the graduate coordinator.

Thesis Option

A thesis may be substituted for the research seminar and a three-semester-hour elective. The thesis, which will be a maximum of six semester hours of credit, must be submitted according to the general requirements of the School of Graduate Studies and Research. The student will defend the thesis in an oral examination before a committee of three or more faculty members of the department. Students wishing to write a thesis must submit a thesis proposal and the names of three faculty members who are willing to serve on a thesis committee to the graduate coordinator prior to registering for thesis credit hours.

Master of Arts in English

Program Director

James Schramer
211 DeBartolo Hall
(330) 941-3423
jschramer@ysu.edu

Program Description

The Master of Arts program in English offers courses in literature research, history, and theory; genre and figure studies; creative and professional writing; linguistics and composition theory; film; and the teaching of writing and literature. Faculty members strive to offer students an understanding of the traditions of literary study and familiarity with the latest multicultural and interdisciplinary approaches. The M.A. in English prepares graduates to pursue opportunities in teaching, professional writing, and further graduate study.

Working closely with their advisors, students design individual programs to meet their interests and goals. Students are encouraged to explore a variety of approaches to the study of literature, language, and writing and to develop their abilities as readers, critics, writers, and teachers. The program requires 30 semester hours of coursework in English, during which students complete and present a thesis or portfolio of their representative work to a faculty review committee.

Faculty Research Interests

Kevin Ball, Ph.D., Associate Professor
Composition and rhetoric; literacy studies; community literary practices

Christopher Barzak, M.A., Instructor
Fiction writing; fiction; contemporary British and American literature

Bege Bowers, Ph.D., Professor
Nineteenth-century British studies; professional and technical editing; rhetoric; composition

Philip Brady, Ph.D., Professor
Modern Irish literature; creative writing; modern world literature

Steven Brown, Ph.D., Professor
Applied linguistics; English as a second language

Jeffery M. Buchanan, Ph.D., Associate Professor
Rhetoric and composition; English education

Suzanne Diamond, Ph.D., Associate Professor
Theory and politics of written expression/confession; heredity narratives; college composition instruction development

Timothy Francisco, Ph.D., Associate Professor
Shakespeare; Jacobean drama; journalism

Shearle Furnish, Ph.D., Professor, Dean of the College of Liberal Arts and Social Sciences
Medieval literature; codicology; bibliography; methods of literary research

Julia M. Gergits, Ph.D., Professor
Victorian literature; women's studies; technical writing; literature and the other arts

Jay Gordon, Ph.D., Associate Professor
Rhetoric; professional and technical writing

William Greenway, Ph.D., Professor
Poetry writing; poetry; modern British and American literature

Patricia M. Hauschildt, Ph.D., Associate Professor
Culturally relevant pedagogical practices; narrative and identity methodologies; young adult literature

Scott A. Leonard, Ph.D., Professor
Nineteenth-century British literature; critical theory; composition/rhetoric

Sherry Lee Linkon, Ph.D., Professor
Nineteenth- and 20th-century American studies; feminist criticism; popular culture; working-class studies

Gail Okawa, Ph.D., Professor
Multicultural studies

Steven Reese, Ph.D., Professor
Twentieth-century British literature; creative writing

Gary M. Salvner, Ph.D., Professor and Chair
English education; adolescent and children's literature; composition

James Schramer, Ph.D., Professor
Early American literature; technical writing; travel literature

Dolores Sisco, Ph.D., Assistant Professor
African diaspora studies; postcolonial studies; popular culture

Stephanie A. Tingley, Ph.D., Professor
American literature; film studies; pedagogy

Admission Requirements

Students must have an undergraduate English major or other preparation judged satisfactory by the department and an unrecalculated grade point average in undergraduate study of at least 3.0 (on a 4.0 scale). Applicants for the M.A. are required to submit a brief (750-1000 words) statement of purpose outlining their reasons for wishing to obtain the M.A. in English and how that degree fits into their professional goals.

Degree Requirements

All master's degree students must complete 30 semester hours in English courses at the graduate level; exceptions must have prior approval of the English Department chair and the Director of Graduate Studies. All M.A. students must take at least one course in each of two areas: one theory or methods course (graduate assistants must take ENGL 6907; ENGL 6989 may not fulfill this

requirement); one language, discourse, or writing course. Students may select the literature-based M.A. or the M.A. track in Professional Writing and Editing to complete their degree.

M.A. in English

To complete this option, students must complete 30 semester hours in English courses at the graduate level; exceptions must have prior approval of the Department Chair and the Director of Graduate Studies. In addition to theory, language, discourse, or writing courses required above, students selecting this option must take at least two literature courses from a list of approved courses. To complete their degree requirements, students in this option may either submit a thesis or a graduate portfolio.

Students in this option are encouraged, but not required, to create a focus area with their remaining courses. Possible focus areas include literature, linguistics, professional writing and editing, composition and rhetoric, teaching English to speakers of other languages (TESOL), and literature for children and young adults. Students who plan on pursuing a Ph.D. in literary studies are strongly encouraged to complete a broad selection of courses in British and American literature.

M.A. in English, Professional Writing and Editing Track

To complete this option, students must complete 30 semester hours of credit in the following courses. Two of these courses must also satisfy the theory, language, discourse, or writing courses required above.

Required Core Courses:

6943 Professional and Technical Communication
6944 Document Design and Production
6945 Theory of Professional and Technical Communication
6992 Professional Communication (special topics)
6953 Publication Issues and Management
6949 Professional and Technical Editing

Choose Three Courses from the Following:

6901 Methods of Composition Research
6907 Teaching of Writing
6950 Sociolinguistics
6955 Advanced Linguistics
6958 English Grammar
6993 Discourse Theory

Choose Either:

6998 Professional Writing Internship and Professional Portfolio
6999 Thesis

Thesis and Portfolio Options

All M.A. students must submit a thesis or portfolio. Handouts on thesis and portfolio guidelines and examples of past theses and portfolios are available from the departmental Director of Graduate Studies.

The thesis option is designed especially for, but is not limited to, students planning to pursue a doctorate. Students choosing this option must select a committee consisting of a thesis director and two additional graduate faculty members. This committee must approve a thesis proposal before the student can register for thesis credit. Students must demonstrate through the thesis a familiarity with appropriate sources and an ability to interpret the material and properly document their research. Students selecting the thesis option may count up to three semester

hours of thesis credit (ENGL 6999) toward their total of 30 semester hours of coursework.

The portfolio consists of selected work written during graduate coursework or as part of a professional internship. Most of this writing will come from class assignments; however, up to 15 pages of personal writing done outside of the classroom may be included. The student will present the portfolio to a faculty review committee no later than the eighth week of the semester in which s/he plans to graduate. Students in the Professional Writing and Editing track may count up to three semester hours of credit earned in their professional internship toward the 30 semester hour requirement.

Graduate Certification

Graduate certificates in professional writing and editing, teaching of writing, literature for children and young adults, and teaching English to speakers of other languages (TESOL) are available through the English Department. Please see the appropriate information in the Graduate Certificates section of this catalog.

Advising

All students should have their schedules approved by a graduate faculty advisor every semester. After initial enrollment in the program, the student and his or her advisor will establish a coursework plan including alternate course selections.

Students who anticipate graduate study beyond the M.A. are strongly advised to acquire basic reading competence in at least one foreign language.

Master of Arts in Financial Economics

Program Director

Ebenge Usip
307 DeBartolo Hall
(330) 941-1682
eeusip@ysu.edu

Program Description

The Master of Arts in financial economics program is designed to provide students with a background in economic theory and to teach students how to analyze financial markets. This program is intended to lead to professional employment in the financial services industry, including banking, insurance, and financial advising. Coursework in the program includes coverage of micro- and macroeconomic theory, econometrics, financial markets, management of financial capital, and analysis of the valuation of stocks. Electives allow students an opportunity to pursue additional topics such as international finance. Supplemented by upper-level courses in mathematics, the program can also help prepare students for doctoral study in finance, economics, or related fields.

Faculty Research Interests

Ou Hu, Ph.D., Assistant Professor of Economics
Financial markets; international finance; asset pricing

Joseph Palardy, Ph.D., Associate Professor of Economics
Macroeconomics; time series econometrics

Dennis Petruska, Ph.D., Professor of Economics
Financial markets; macroeconomics; monetary theory

Tod Porter, Ph.D., Professor and Chair of Economics
Labor markets; school finance; computer-aided instruction

Teresa Riley, Ph.D., Professor of Economics
Labor economics; health care financing; economics education

Yogesh Uppal, Ph.D., Assistant Professor of Economics
Applied microeconomics; applied econometrics; public economics

Ebenge Usip, Ph.D., Professor of Economics
Econometrics; time series analysis and forecasting; mathematical economics

Ronald P. Volpe, Ph.D., Professor of Accounting and Finance
Financial planning; financial literacy; investing

Yaquin Wang, Ph.D, Associate Professor of Economics
Futures markets; behavioral finance

Fran Wolf, Ph.D., Professor of Accounting and Finance
Financial management; advanced financial analysis

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, applicants must have completed at least one course in each of the following areas: principles of microeconomics, principles of macroeconomics, statistics, and calculus. Students who do not meet the requirements may be admitted on a provisional basis.

Nonthesis Option

Students must complete 30 semester hours of graduate credit with a grade point average of 3.0 or higher for the M.A. in financial economics. The requirements for the degree include the following core courses plus two electives that account for a total of six semester hours.

Core Courses

Courses That May Be Waived		
ECON 6904	Quantitative Methods	3 s.h.
FIN 6900	Financial Accounting and Finance for Decision Making	4 s.h.
Required Courses		
ECON 6912	Microeconomic Theory	3 s.h.
ECON 6922	Macroeconomic Theory	3 s.h.
ECON 6939	The Economics of Financial Markets and Institutions	3 s.h.
ECON 6976	Econometrics	3 s.h.
ECON 6998	Research Seminar	3 s.h.
FIN 6921	Financial Management	3 s.h.
FIN 6924	Securities Analysis	3 s.h.
FIN 6939	Multinational Accounting and Finance	
	or	
FIN 6953	Advanced Financial Analysis	3 s.h.

The paper produced in the research seminar will be reviewed by a committee of three graduate faculty from the Department. Electives are 6900-level graduate courses in the Department that are included in the M.A. program. One elective may be either a 5800-level economics swing course or a graduate-level course taught outside the Department that has been approved by the graduate coordinator.

Thesis Option

A thesis may be substituted for the research seminar and a three-semester-hour elective. The thesis, which will be a maximum of six semester hours of credit, must be submitted according to the general requirements of the School of Graduate Studies and Research. The student will defend the thesis in an oral examination before a committee of three or more faculty members of the Department. Students wishing to write a thesis must submit a thesis proposal and the names of three faculty members who are willing to serve on a thesis committee to the graduate coordinator prior to registering for thesis credit hours.

Master of Arts in History

Program Director

Anne York
529 DeBartolo Hall
(330) 941-3535
nun333@aol.com

Program Description

The Department of History offers a graduate program leading to the Master of Arts degree. Its curriculum combines American, European, and Third World areas. The program prepares students for doctoral study in history or related fields, advancement in secondary and elementary education with a concentration in history and the social sciences, certification in applied history, and additional graduate study in a variety of professional areas. Alternatively, the program provides the knowledge base for those pursuing history as an avocation. The program concentrates on research and primary materials, written analysis of research results, study of important monographs in all fields of history, and training in a number of special fields, such as oral history and historic preservation. The department prides itself on its small classes and close personal attention to all of its master's candidates.

Faculty Research Interests

Daniel Ayana, Ph.D., Associate Professor
Africa; social and economic history

L. Diane Barnes, Ph.D., Assistant Professor
Nineteenth-century American history; historical editing

Brian Bonhomme, Ph.D., Associate Professor
Nineteenth- and 20th-century Russian history; environmental history

Eleanor Congdon, Ph.D., Associate Professor
Medieval; Renaissance; Mediterranean world; maritime history

Donna M. DeBlasio, Ph.D., Associate Professor
Historic preservation; oral history

William Jenkins, Ph.D., Professor
Twentieth-century United States; social history

Thomas E. Leary, Ph.D., Associate Professor
Historic preservation; labor and industrial history

Martha Pallante, Ph.D., Professor and Chair
Early American studies; material culture; pedagogy

David Simonelli, Ph.D., Associate Professor
Britain; British Empire

Helene Sinnreich, Ph.D., Assistant Professor
Germany; Judaic Studies

Fred W. Viehe, Ph.D., Associate Professor
Urban history; organized crime

Anne York, Ph.D., Associate Professor
Early modern and revolutionary France; Vietnam; women's history

Admission Requirements

Students must have an unrecalculated grade point average in undergraduate study of at least 2.75 (on a 4.0 scale) and a minimum of 16 semester hours of study in the field of history as an undergraduate (which may be waived upon petition to the Department of History). Each entering student is required to submit a score on the Graduate Record Examination and a graded academic writing assignment from a class.

Degree Requirements

The Department of History offers three options to candidates for a Master of Arts degree in history. Option I is designed primarily for students who wish to continue studies toward a doctorate. Option II is designed primarily to meet the needs and improve the effectiveness of secondary teachers. Option III, the certificate in applied history, is designed to prepare students for career opportunities in that field.

Each candidate for the M.A. in history must pass a written and an oral examination in three fields of concentration. The examination will require factual and interpretative material, as well as bibliography and historiography.

Option I

- A total of 30 semester hours of graduate credit including thesis (six semester hours)
- Completion of a course in historiography (HIST 6902 American Historiography or HIST 6904 European Historiography) and HIST 6900 Introduction to Historical Research
- A required thesis
- Successful completion of general written and oral examinations

Students working in American or British history will not, in most instances, be required to pass a foreign language examination. In areas where a foreign language is essential for research, the student will have to meet the requirement set by the department.

Before any student under option I is allowed to take the written and oral examinations, the advisor will designate to the chair of the Graduate Committee of the Department of History which foreign language, if any, the student is required to know and how this requirement has to be met.

Students under option I are reminded that the Department of History expects that the thesis shall display a capacity for research in a variety of historical sources and the ability to interpret factual information and shall constitute a properly documented report of the completed research.

Option II

- A total of 33 semester hours of graduate credit
- Completion of a course in historiography (HIST 6902 American Historiography or HIST 6904 European Historiography) and HIST 6900 Introduction to Historical Research
- Two satisfactory (B or better) graduate seminar papers submitted to two different instructors. The papers will be deposited with the graduate program director to remain permanently on file.
- Successful completion of general written and oral examinations
- Foreign language examination is not required

Option III (Certificate in Applied History)

The M.A. in history with certificate in applied history is designed both to give students a grounding in American history and historical research at the graduate level and to introduce them to ideas and techniques useful in applied history of the built environment. Students earning the certificate may find work with state or local preservation groups, museums, or government agencies. Students choose from among three possible tracks and then complete an additional 15 semester hours as described below.

- A total of 33 semester hours of graduate credit
- Completion of the coursework in one of the three tracks listed below

Track I: Historic Preservation		18 s.h.
HIST 5806	American Architectural History I	3 s.h.
HIST 5807	American Architectural History II	3 s.h.
HIST 5810	Conservation of Historic Built Environment	3 s.h.
HIST 6942	Introduction to Applied History	3 s.h.
HIST 6943	Practicum in Applied History	3 s.h.
HIST 6944	Applied History Internship	3 s.h.

Track II: Museum Studies		18 s.h.
HIST 6941	American Material Culture	3 s.h.
HIST 6942	Introduction to Applied History	3 s.h.
HIST 6943	Practicum in Applied History	3 s.h.
HIST 6944	Applied History Internship	3 s.h.
HIST 6955	Museum Curation and Interpretation I	3 s.h.
HIST 6956	Museum Curation and Interpretation II	3 s.h.

Track III: Applied History Sequence		18 s.h.
HIST 5806	American Architectural History I	3 s.h.
HIST 6940	Oral History	3 s.h.
HIST 6941	American Material Culture	3 s.h.
HIST 6942	Introduction to Applied History	3 s.h.
HIST 6944	Applied History Internship	3 s.h.
HIST 6946	Historical Editing	3 s.h.

- Completion of at least one course from one of the tracks listed above that is not the student's primary track
- Completion of HIST 6900 Introduction to Historical Research, HIST 6902 American Historiography, at least one seminar outside of applied history, and at least one readings course
- Two satisfactory (B or better) graduate seminar papers submitted to two different instructors. One shall be from a history seminar and must be a research paper using primary sources. The other shall be based upon a paper begun in a preservation course, expanded through additional research and reading as directed by the instructor. The papers will be deposited with the graduate program director to remain permanently on file.
- Successful completion of general written and oral examinations
- Foreign language examination is not required

Master of Business Administration

Dean of the College of Business Administration

Betty Jo Licata
503 Williamson Hall
(330) 941-2737
bjlicata@ysu.edu

M.B.A. Coordinator

Monique Bradford
506 Williamson Hall
(330) 941-3069
mrbradford@ysu.edu

Program Description

The Master of Business Administration program is designed primarily to prepare students for increasing levels of managerial responsibilities and executive positions. The program provides qualified students with a broad-based knowledge of accounting, finance, management, and marketing, as well as their interrelationships and applications. M.B.A. graduates are educated to be capable of identifying complex problems, conducting critical analyses, and making informed and ethical decisions in the dynamic global environment.

Accreditation

The Master of Business Administration program is fully accredited by the Association to Advance Collegiate Schools of Business (AACSB) International. Fewer than one-third of the 1200 business schools in the United States have earned this prestigious accreditation.

Faculty Research Interests

Cynthia E. Anderson, Ed.D., Professor of Marketing
Marketing of higher education; recruitment and retention strategies of higher education; advertising/public relations.

Huaiyu (Peter) Chen, Ph.D., Associate Professor of Accounting and Finance
Investment; financial derivatives

R. V. Eunni, D.B.A., Associate Professor of Management
Strategic management; international strategy; emerging markets

Birsen Karpak, D.B.A., Professor of Management
Management science; operations management

Ram Kasuganti, D.B.A., Professor and Chair of Management
Quality management; strategy and policy; international business; materials management

Bart Kittle, Ph.D., Associate Professor of Marketing
Internet marketing

Anthony J. Kos, Ph.D., Associate Professor of Management
Organizational behavior; human resource management; strategic management

Clement Psenicka, D.B.A., Professor of Management
Management science; operations management

John Russo, Ed.D., Professor of Management
Labor relations; industry studies

David E. Stout, Ph.D., Professor of Accounting and Finance
Accounting curriculum development; practice-based case studies; cross-disciplinary studies

Mark Toncar, Ph.D., Professor of Marketing
International marketing

Ronald P. Volpe, Ph.D., Professor of Accounting and Finance
Financial planning; financial literacy; investing

Fran Wolf, Ph.D., Professor of Accounting and Finance
Financial management; advanced financial analysis

Admission Requirements

Students should note that an undergraduate degree and a Graduate Management Admission Test (GMAT) score are mandatory admission requirements.

All applicants to the M.B.A. program should submit a résumé and a letter of application stating professional goals and objectives.

Regular Admission

Requirements for regular admission to the program are a baccalaureate degree from an accredited institution, an unrecalculated undergraduate grade point average of 2.7 (on a 4.0 scale) or above, and a minimum GMAT score of 460. Admission may, on occasion, be granted to students who have below a 460 GMAT score if they demonstrate exceptional credentials that indicate a high probability of success in M.B.A. studies.

Degree Requirements 30-48 s.h.

There are three levels of coursework in the M.B.A. program:

Level I	Foundations (waiveable)	18 s.h.
Level II	Advanced requirements	22 s.h.
Level III	Electives	8 s.h.

A student entering with undergraduate business administration coursework may receive waivers of level I courses. Level I foundations courses must be satisfied before proceeding to the corresponding advanced course disciplines in levels II and III.

Level I: Foundation Courses **18 s.h.**

Students who have met one or more level I requirements as a part of their undergraduate coursework may be eligible for course waivers. Students are required to demonstrate computer proficiency in addition to successfully completing the following required courses:

ECON 6900	Statistical Problems	3 s.h.
ECON 6901	Basic Economic Analysis	3 s.h.
FIN 6900	Financial Accounting and Finance for Decision Making	4 s.h.
MGT 6900	Foundations of Management	2 s.h.
MGT 6916	Quantitative Analysis for Business Decision	2 s.h.

MGT 6917	Information Systems for Management	2 s.h.
MKTG 6900	Foundations of Marketing	2 s.h.
Level II: Advanced Courses (required for all M.B.A. students)		**22 s.h.**
ACCT 6902	Management Accounting Systems	3 s.h.
FIN/MKTG/MGT 6920	Global Business Environments*	3 s.h.
FIN 6921	Financial Management	3 s.h.
MGT 6921	Operations Management	3 s.h.
MGT 6961	Optimizing Human Performance in Organizations	3 s.h.
MGT 6965	Strategic Management and Leadership**	3 s.h.
MGT 6967	The M.B.A. Integrated Project***	1 s.h.
MKTG 6942	Strategic Marketing Management	3 s.h.

All level I coursework and six semester hours of level II coursework should be completed before proceeding to level III electives.

Level III: Elective Courses	**8 s.h.**
Total Hours Required for Degree	**30–48 s.h.**

Accounting Specialization

Effective in the year 2000, Ohio residents wishing to sit for the Certified Public Accountant (CPA) Examination are required to have completed 150 semester hours of education. To assist our students in meeting that requirement and to enhance their preparation for the exam, the M.B.A. with an accounting specialization is strongly recommended. M.B.A. coursework for the accounting option is the same as the regular M.B.A. in terms of advanced courses and total hours; however, specific course requirements should also be met. With proper planning, both an undergraduate degree and a graduate degree may be earned in five years by taking graduate courses in the senior year. Advanced planning is essential to meet degree and time requirements. Please see the program coordinator or Department chair for a curriculum sheet and further details.

* Cross-listed courses.
** Taken as the last course in the program of study.
*** Taken concurrently with MGT 6965.

Master of Computing and Information Systems

Program Director

John Sullins
333 Meshel Hall
(330) 941-1806
john@cis.ysu.edu

Program Description

The Master of Computing and Information Systems is designed to emphasize important applied areas of computing, providing background in the overall structure of information systems, in-depth knowledge in vital areas, such as databases and networking, and opportunities to learn a variety of other important, emergent, and current areas of computing, such as electronic commerce, multimedia authoring, web design, and Internet programming.

The program is designed to serve students with some background in computing (possibly work related) but who need additional deeper, more comprehensive, or more up-to-date knowledge of computing/information systems in order to make career advancements or to better utilize the technology that they are required to use on a daily basis.

Like most applications of information systems, the program is also interdisciplinary in nature to allow students with a background in areas other than information systems to learn how to apply information systems to those areas. A number of interdisciplinary courses are supported, and students may take elective courses outside of the Department.

Faculty Research Interests

Alina Lazar, Ph.D., Associate Professor
Applied machine learning; database mining; agent-based simulations and parallel programming

John R. Sullins, Ph.D., Associate Professor
Neural networks; expert systems; robotics; search engines

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, students must also have previous courses in information systems equivalent to CSIS 1590 Survey of Computer Science and Information Systems, previous courses in computer programming equivalent to CSIS 2610 Programming and Problem Solving and CSIS 3700 Data Structures and Objects, previous courses in databases equivalent to CSIS 3722 Development of Databases, and previous courses in networking equivalent to either CSIS 3723 Networking Concepts and Administration or CSIS 3783 Cisco Networking Academy II. In addition, technical communication skills equivalent to INFO 3704 Business Communications are required. Equivalent employment-related experience may be substituted for some of these requirements. The experience must be described in detail and reliably documented (in a letter of recommendation from an employer, for example).

Students are also required to submit a résumé, a written statement describing their past experience in computing/information systems (both employment and academic), and their reasons and goals for applying to the program. The Graduate Record Examination (general test) is also required and students must obtain an acceptable score.

Students not satisfying all admission requirements may be admitted with provisional status subject to the approval of the graduate program director and the graduate dean. Such students will generally be required to take specified undergraduate and/or foundation courses which will

not count toward the master's degree.

Degree Requirements

A minimum of 33 approved semester hours of credit (at least half of which must be at the 6900 level) is required for the Master of Computing and Information Systems. A core of CSCI 6920, CSCI 6950, and either CSCI 6921, CSCI 6940, or CSCI 6951 is required of all students. Additionally, a minimum of 21 semester hours of graduate electives consisting of approved graduate and/or swing courses is also required. Up to nine semester hours may be taken in departments other than Computer Science and Information Systems. For graduation, the student must complete either a thesis (at least three semester hours of CSCI 6999) or a capstone project (at least three semester hours of CSCI 6990). This project is meant to explore and apply some area of computing and information systems and is subject to the approval of the major advisor.

The student's course of study will be determined in conjunction with the student's major advisor and, possibly, with an advisor from outside of the department, particularly if the student is interested in applying information systems to some other area. This course of study will be based on the student's area of specialization, background interests, and career interests. It may also include graduate courses from other areas where appropriate. A cohesive individual curriculum program of approved elective courses will be developed in conjunction with the student's major advisor after nine semester hours of core courses have been completed.

Master of Fine Arts in Creative Writing

Program Director

Philip Brady
238 DeBartolo Hall
(330) 941-1952
psbrady@cc.ysu.edu

Program Description

The Master of Fine Arts program at Youngstown State University is part of the Northeast Ohio Universities Master of Fine Arts (NEOMFA) in Creative Writing. The NEOMFA is a multidisciplinary, interdepartmental, and interinstitutional program that provides opportunities for students to pursue the terminal degree in creative writing. The NEOMFA draws its faculty from departments at Youngstown State University, Cleveland State University, Kent State University, and The University of Akron.

This program offers workshops in poetry writing, fiction writing, creative nonfiction writing, and playwriting, as well as courses in literature, literary craft and theory, literary translation, and professional writing and editing. The M.F.A. prepares graduates to pursue opportunities in arts management; in many areas of communication, publicity, and marketing; and in teaching creative writing, literature, and expository writing. Graduates of the program are ready to contribute to the literary life of the nation and the cultural life of the community. The program requires 48 semester hours of coursework.

Faculty Research Interests

Maggie Anderson, M.A., Professor of English
Poetry
Kent State University

Nuala Archer, Ph.D., Associate Professor of English
Poetry
Cleveland State University

Brian James Baer, Ph.D., Associate Professor of Modern and Classical Language Studies
Literary translation: Russian
Kent State University

Christopher Barzak, M.A., Instructor of English
Fiction
Youngstown State University

Marya Bednerik, Ph.D., Professor of Theatre
Playwriting
Kent State University

Sharon Massingale Bell, Ph.D., Assistant Professor of Modern and Classical Language Studies
Literary translation: French
Kent State University

Mary Biddinger, M.F.A., Ph.D., Assistant Professor of English

Poetry
The University of Akron

Philip Brady, Ph.D., Professor of English
Poetry; creative nonfiction
Youngstown State University

Neal Chandler, Ph.D., Creative Writing Coordinator, English
Fiction
Cleveland State University

Roger Craik, Ph.D., Professor of English
Poetry
Kent State University

Maryann DeJulio, Ph.D., Professor of Modern and Classical Language Studies
Literary translation: French and Italian
Kent State University

Michael Dumanis, Ph.D., Assistant Professor of English
Poetry
Cleveland State University

Zee Edgell, B.A. equivalent, Associate Professor of English
Fiction
Kent State University

Radd K. Ehrman, Ph.D., Associate Professor of Modern and Classical Language Studies
Literary translation: classics
Kent State University

Mike Geither, M.F.A., Assistant Professor of English
Playwriting
Cleveland State University

John Gerlach, Ph.D., Professor of English
Fiction
Cleveland State University

Elton Glaser, M.F.A., Professor Emeritus of English
Poetry
The University of Akron

Adrienne Gosselin, Ph.D., Associate Professor of English
African-American literature; American literature; creative writing
Cleveland State University

William Greenway, Ph.D., Professor of English
Poetry
Youngstown State University

Donald Hassler, Ph.D., Professor of English
Poetry; science fiction
Kent State University

Carol Maier, Ph.D., Professor of Modern and Classical Language Studies
Literary translation: Spanish
Kent State University

Françoise Massardier-Kenney, Ph.D., Professor of Modern and Classical Language Studies
Literary translation: French
Kent State University

Robert Miltner, Ph.D., Associate Professor of English
Poetry
Kent State University

Varley O'Connor, M.F.A., Assistant Professor of English
Creative Writing
Kent State University

Craig Paulenich, M.F.A., Ph.D., Associate Professor of English
Poetry
Kent State University

Robert Pope, M.F.A., Professor of English
Fiction
The University of Akron

Steven Reese, Ph.D., Professor of English
Poetry
Youngstown State University

Sheila Schwartz, M.A., Associate Professor of English
Fiction
Cleveland State University

Joanna Trzeciak, Ph.D., Assistant Professor of Modern and Classical Language Studies
Literary translation: Polish and Russian
Kent State University

Kelly Washbourne, Ph.D., Assistant Professor of Modern and Classical Language Studies
Literary translation: Spanish and Portuguese
Kent State University

Eric Wasserman, M.F.A., Assistant Professor of English
Fiction
The University of Akron

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admissions require-

ments, applicants must submit three letters of recommendation and a substantive portfolio of creative work that includes either 15 to 20 pages of poetry or literary translation of poetry or 30 pages of fiction, creative nonfiction, playwriting, or prose literary translation. All portfolios must include at least one finished work. All items in the portfolio should be double-spaced. The letters of recommendation should come from individuals familiar with the applicant's academic or professional background. The letters should include an assessment of the applicant's current work quality and ability to successfully complete graduate training. Application to the M.F.A. program authorizes staff members at participating institutions to have access to all student academic records and application materials.

Degree Requirements

All M.F.A. students must complete 48 semester hours in graduate-level courses. There are six areas of coursework in the M.F.A.: writing workshops (15 semester hours), craft and theory courses (six semester hours), literature courses (nine semester hours), internship (three semester hours), electives (nine semester hours), and thesis (six semester hours). The thesis must be submitted according to the general requirements established by the School of Graduate Studies and Research. The student is required to defend the thesis in an oral presentation before a committee of graduate faculty from a minimum of two consortium schools.

Advising

All students should have their schedules approved by a graduate faculty advisor every semester. After initial enrollment in the program, the student and his or her advisor will establish a coursework plan including alternate course selections. An advisor may be chosen from the faculty of any consortium school.

Master of Health and Human Services

Program Director

Carol Mikanowicz
1086 Cushwa Hall
(330) 941-3658
ckmikanowicz@ysu.edu

Program Description

The Master of Health and Human Services is a collaborative degree between The Bitonte College of Health and Human Services and the Warren P. Williamson, Jr. College of Business Administration. The program accommodates students from health and human services professions who require the skills and abilities for supervisory/managerial positions or who desire competence in health promotion or physical education skills and methods in the community. The program is structured as a weekend college program with classes offered evenings and on Saturday during the day. After completion of an academic core of coursework, students may concentrate in either health promotion, administration for health and human service professions, or physical education.

Faculty Research Interests

John M. Hazy, Ph.D., Assistant Professor of Criminal Justice
Violence prevention; community health; methodology

Carol Mikanowicz, Ph.D., Professor of Health Professions
Community assessment; program planning; evaluations; health behaviors

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, applicants must complete undergraduate courses in methodology, statistics, ACCT 2602 Financial Accounting, CSIS 1514 Business Computer Systems, and AHLT 4810 Management Skills for Health Professionals or MGT 3725 Fundamentals of Management, or their equivalent. Deficiencies in any of these courses must be eliminated before completion of the second semester of graduate work. Also, students must submit three letters of reference: one from a faculty member, one from an employer, and one from another source, or two from faculty members and one from another source. Regular admission requires an unrecalculated cumulative undergraduate grade point average of at least 3.0 (on a 4.0 scale).

Degree Requirements

There are three areas of coursework in the M.H.H.S.: an academic core, concentration area, and thesis or nonthesis option. The academic core consists of 23 semester hours distributed among the following course areas: tools (five semester hours), management skills (six semester hours), and issues in health and human services (12 semester hours). A total of ten to 14 semester hours of coursework is devoted to a concentration area—health promotion (six semester hours), administration for health and human service professions (six semester hours), and physical education (six semester hours)—and the thesis (four semester hours) or nonthesis option (eight semester hours). Students with inadequate professional experience will be required to complete a one- to two-semester hour practicum. The thesis must be submitted according to the general requirements established by the School of Graduate Studies and Research. The student is required to defend the thesis in an oral presentation before a committee of graduate faculty from a minimum

of two academic disciplines. Students selecting the nonthesis option must successfully complete a comprehensive examination and additional courses for graduation.

Academic Core		**23 s.h.**
Tools*		5 s.h.
CJUS 6942	Research and Statistics	3 s.h.
MGT 6917	Management Information Systems	2 s.h.
Management Skills**		6 s.h.
MGT 6961	Optimizing Human Performance in Organizations	3 s.h.
MGT 6962	Organizational Staffing Process	3 s.h.
Issues in Health and Human Services		12 s.h.
CHHS 6949	Principles of Community Health Practice	3 s.h.
CHHS 6953	Health Behavior	3 s.h.
CHHS 6958	Health Services Issues	3 s.h.
CHHS 6980	Seminar	3 s.h.

Concentration Areas (with thesis/nonthesis option stated below) **10–14 s.h.**

Students must choose a concentration area from the following options:

Health Promotion		6 s.h.
CHHS 6959	Foundation and Planning	3 s.h.
CHHS 6960	Implementation and Evaluation	3 s.h.

or

Administration for Health and Human Services Professions		6 s.h.
CHHS 6918	Program Planning and Evaluation	2 s.h.
CHHS 6922	Planning and Fiscal Management	4 s.h.

and

Thesis Option **4 s.h. required**

CHHS/HMEC6999 Thesis 1–4 s.h.

or

Nonthesis Option (elective courses) **8 s.h.**

AHLT 5807	Epidemiology for the Health Care Practitioner	3 s.h.
AHLT 5840	Comparative Health Care Systems	4 s.h.
CHHS 6950	Professional Codes in Healthcare	3 s.h.
CHHS 6981	Grant Writing (required)	2 s.h.
COUN 6926	Introduction to Chemical Dependency	2 s.h.
FNUT 5872	Maternal and Child Nutrition	3 s.h.
FNUT 5873	Nutrition and Aging	3 s.h.
HMEC 6925	Current Concepts in Nutrition	3 s.h.
MGT 6971	Business and Society	3 s.h.
SOC 6905	Social Gerontology	3 s.h.

Or other appropriate courses with prior approval of the faculty advisor

* Prerequisites for the tools courses include undergraduate methodology, a statistics course, ACCT 2602 Financial Accounting, and CSIS 1514 Business Computer Systems or equivalent.

** Prerequisite for the management skills component is AHLTH 4810 Management Skills for Health Professionals, MGT 3725 Fundamentals of Management, or equivalent.

Note: CHHS 6990 Practicum for Health and Human Services (one to two semester hours) may also be required for some graduate students after the faculty advisor evaluates students' professional experiences.

Physical Education		**6 s.h.**
HPES 6900	Pedagogical Analysis	3 s.h.
HPES 6903	Curriculum Development	3 s.h.

and

The following three courses (total eight semester hours) are required for the nonthesis option in physical education:

CHHS 6981	Grant Writing	2 s.h.
HPES 6905	Contemporary Issues in Sport Pedagogy	3 s.h.
HPES 6920	Mechanical Analysis of Motor Movements	3 s.h.

or

Four semester hours of thesis are required for the thesis option:

CHHS/HMEC 6999	Thesis	1–4 s.h.

Total Hours Required for Degree	**33–37 s.h.**

Master of Music

Program Director

Stephen Ausmann
3039 Bliss Hall
(330) 941-1835
swausmann@ysu.edu

Program Description

Master's degrees are offered in music education, music performance, music history, music theory/composition, and jazz studies through the Dana School of Music, which was founded in Warren, Ohio, in 1869 as Dana's Musical Institute. A member of the National Association of Schools of Music, Dana currently enrolls 300 undergraduate and graduate students. The Dana School of Music is designated an All-Steinway School, featuring 68 Steinway pianos in addition to six mechanical action organs, two harpsichords, an electronic music laboratory, and 80 acoustically treated practice rooms, all housed in the $6 million Bliss Hall. In addition, the University library contains a large music section, especially notable for its collected and scholarly editions, while the Multimedia Center holds several thousand records, tapes, CDs, and practical edition scores.

Faculty Research Interests

Stephen W. Ausmann, Ph.D., Professor
Music teacher preparation/retention; urban teacher (music) education

Laura Buch, Ph.D., Associate Professor
Music of the Middle Ages and Baroque

Michael Crist, Ph.D., Professor
Music performance (trombone); aesthetics; music teacher training; computers in music

Kent Engelhardt, Ph.D., Assistant Professor
Charlie Parker; Bebop; Kansas City Jazz

Darla Funk, Ph.D., Professor
Music in early childhood; teacher education

Stephen L. Gage, Ed.D., Professor
Instrumental music education; conducting

Christopher P. Heindenreich, D.M.A., Assistant Professor
History of wind bands; editing of wind band literature

David S. Morgan, Ph.D., Assistant Professor
Jazz performance; composition; music theory

Caroline Oltmanns, D.M.A., Professor
Piano performance

Robert Rollin, D.M.A., Professor
Music composition; music theory and analysis; 20th-century music; film music; Native American music; Jewish music; cross-cultural connections between various ethnic groups

Glenn Schaft, D.M.A., Associate Professor
Percussion; classical, contemporary, jazz, Afro-Cuban, and Brazilian music

William B. Slocum, M.M., Professor
Horn in solo, orchestral, and chamber music contexts

James Umble, D.M.A., Professor
Technology in education; music technology; music performance and pedagogy (saxophone); curriculum development in the arts; and integrated arts

Kathryn Umble, D.M.A., Assistant Professor
Japanese flute; flute and guitar

Admission Requirements

Applicants for admission to graduate study in the Master of Music degree must present a baccalaureate degree in music from an accredited college or university. Admission requires an unrecalculated undergraduate grade point average of at least 2.7 (on a 4.0 scale). Students with less than a 2.7 average must provide satisfactory scores on the aptitude portion of the Graduate Record Examination. Upon admission and before the end of the first semester of graduate study, each student must take a placement examination in music history and music theory. Failure to do so will result in an addition of six semester hours (three semester hours in music theory, three semester hours in music history) to the 32-semester-hour degree program. Theory/composition applicants must submit evidence of compositional or analytic activity. All performance degree applicants must audition on their principal instrument for acceptance to the appropriate applied music level. Students with a major in conducting performance must show evidence of conducting skill through an audition and interview. Students wishing to enroll in any music course under nondegree status must have the approval of the Coordinator of Graduate Studies in Music.

Degree Requirements

- Completion of all requirements outlined in respective courses of study (see next page).
- Candidates must meet whatever undergraduate foreign language requirements are appropriate to their major. Music history and literature majors must pass a written examination in at least one foreign language, preferably French or German, before initiating thesis research. Students with a major in voice performance are expected to have completed four semester hours each in French, German, and Italian, or the equivalent.
- Students who fail to meet the standards set by the School of Music may, upon recommendation of the Dana Graduate Committee, be required to withdraw at the end of the semester. Any student with an overall grade point average below 3.0 (i.e., not in good standing) for two consecutive semesters shall be dismissed from the master's program in music.
- A final qualifying examination is required of all M.M. candidates. Procedural regulations governing the final qualifying examination are available from the office of the faculty member in charge of graduate studies in music.
- Students who write a thesis must complete an oral defense that shall be conducted by a committee composed of three graduate faculty members, one of whom will be from outside the student's major area. The thesis committee shall be appointed by the student's advisor when the thesis proposal is accepted by the Graduate Committee.
- Thesis students who have completed 6990 and 6991, Thesis I and II (2+2 s.h.), and have completed all course requirements but have not defended the thesis are required to maintain current student status if they expect to receive advisor or committee assistance or utilize University services (e.g., library, computer, parking, and so forth). This can be ac-

complished by registering for one hour of Music 6991.

- Performance majors will submit a document supporting the recital. Information about the recital document is available from the Coordinator of Graduate Studies in Music.

Performance	**32 s.h.**
6900-level applied*	12 s.h.
6942 or 6973	3 s.h.
Music history/music theory electives (A/B/E)**	9 s.h.
Music literature (F)	3 s.h.
Music electives (A–F)	5 s.h.

Music History and Literature	**32 s.h.**
Music history/literature (B/E)	15 s.h.
6942 or 6973	3 s.h.
Music theory (A)	3 s.h.
5800- or 6900-level applied or electives (A–F)	7 s.h.
Thesis (2+2 s.h.)	4 s.h.

Music Theory and Composition	**32 s.h.**
Music theory (A)***	15 s.h.
6942 or 6973	3 s.h.
Music history (B/E)	3 s.h.
5800-or 6900-level applied or electives (A–F)	7 s.h.
Thesis (2+2 s.h.)	4 s.h.

Music Education	**32 s.h.**
Music education (C)****	9 s.h.
6970 and 6978	6 s.h.
6942 or 6973	3 s.h.
Music history/music theory electives (A/B/E)	9 s.h.
5800-or 6900-level applied or electives (A–F)	5 s.h.

Jazz Studies	**32 s.h.**
6935, 6936, and 6946	9 s.h.
6942	3 s.h.
Music theory (A)	3 s.h.
Music history (B/E)	3 s.h.
Jazz Ensemble	2 s.h.
Jazz Combo	2 s.h.
Applied study or electives (A–F)*****	6 s.h.
Thesis (2+2 s.h.)	4 s.h.

(A) Courses to be selected from List A
(B) Courses to be selected from List B
(C) Courses to be selected from List C

* Conducting majors must take four semester hours of vocal or instrumental applied and eight semester hours of applied conducting.

** Both areas must be represented in the coursework.

*** Students in the theory emphasis should take MUSIC 6913 Pedagogy of Theory.

**** Music education majors may count up to four semester hours of S/U graded workshops toward degree fulfillment.

***** Must represent two areas.

(D) Courses to be selected from List D
(E) Courses to be selected from List E
(F) May include up to two semester hours of ensemble courses and up to four additional semester hours of applied music courses. Selection is subject to results of entrance placement examination in music theory and music history. All music electives must be approved by the advisor.

Music Theory and Composition (A)

5821, 5822	Composition for Minors	2+2 s.h.
5828	Music Technology	3 s.h.
5830	Materials of 20th-Century Music	3 s.h.
5831	Modal Counterpoint	3 s.h.
5832	Tonal Counterpoint	3 s.h.
5833	Theory Seminar	3 s.h.
5834	Electronic Music	3 s.h.
5840	Instrumentation	3 s.h.
6903, 6904	Advanced Composition	3+3 s.h.
6913	Pedagogy of Theory	3 s.h.
6916	Fugue	3 s.h.
6921, 6922	Seminar in Materials of Music	3+3 s.h.
6930, 6931, 6932, 6933	Baroque, Classic, Romantic, 20th-Century Music	3+3+3+3 s.h.
6935	Jazz Theory	3 s.h.
6936	Jazz Composition	3 s.h.

Music History (B)

5871	Baroque	3 s.h.
5872	Eighteenth Century and the Viennese Classical School	3 s.h.
5873	Opera History	3 s.h.
5874	Nineteenth Century: The Romantic Period	3 s.h.
5878	Selected Topics in Music History	3 s.h.
6940	Music in the Middle Ages	3 s.h.
6941	Music in the Renaissance	3 s.h.
6943	Seminar in Musicology	3 s.h.
6946	Jazz History	3 s.h.

Music Education (C)

5814	Selected Topics in Music Education	2 s.h.
5841	Music Workshop	1–3 s.h.
6970	Foundations of Music Education	3 s.h.
6972	Seminar in Music Education	3 s.h.
6975	Music and the Humanities	3 s.h.
6976	Directed Study in Conducting	3 s.h.
6978	Contemporary Trends in Music Education	3 s.h.
6979	Workshop in Music Education	1–3 s.h.
6981	Elementary School Music Practicum	3 s.h.
6982	Secondary School Music Practicum	3 s.h.

Pedagogy (D)

5858	Piano Pedagogy	3 s.h.
5880	Vocal Pedagogy	1 s.h.

6913	Pedagogy of Theory	3 s.h.
6950	Conducting Pedagogy	2 s.h.

Music Literature (E)

5860	Keyboard Literature	3 s.h.
5879	Vocal Literature	3 s.h.
6944	Seminar in Symphonic Literature	3 s.h.
6945	Selected Topics in Music Literature	3 s.h.

Music Electives (F)

6942	Introduction to Music Bibliography	3 s.h.
6973	Research Methods and Materials in Music Education	3 s.h.
6990	Thesis I	2 s.h.
6991	Thesis II	2 s.h.
6992	Independent Projects	1–4 s.h.

Master of Public Health

Program Directors

Janice Elias, Interim Dean of the Bitonte College of Health and Human Services
2064 Cushwa Hall
(330) 941-3320
jaelias@ysu.edu

Nancy W. Mosca, YSU Program Coordinator
3062 Cushwa Hall
(330) 941-1793
nwmosca@ysu.edu

Amy Lee, CEOMPH Program Director
Consortium of Eastern Ohio Master of Public Health
NEOUCOM
(330) 747-2247, ext. 6179 or (330) 325-6179
afl@neoucom.edu

Program Description

The Master of Public Health program at Youngstown State University is part of the Consortium of Eastern Ohio Master of Public Health (CEOMPH). The CEOMPH is a multidisciplinary, interdepartmental, and interinstitutional program that provides opportunities for graduate studies in public health. It is housed in the Bitonte College of Health and Human Services. Although the M.P.H. degree is awarded by Youngstown State University, the M.P.H. program is consortium-based. It draws its faculty from several departments at The University of Akron, Cleveland State University, Kent State University, the Northeastern Ohio Universities College of Medicine (NEOUCOM), Ohio University, and Youngstown State University.

The mission of the Consortium of Eastern Ohio Master of Public Health program is to improve public health by the preparation of students for public health practice in the region through collaboration among the participating academic institutions, graduate students, public health practitioners, and the community. Graduates are prepared for significant health roles through practice, community-based research, and community service. Other unique features of the program include the use of distance learning and Saturday course offerings, which accommodate the typical student's work schedule.

The program is structured as a weekend college program with core courses scheduled on Saturdays from 9:00 a.m. to 4:00 p.m. Alternate scheduling will be considered to accommodate students with special circumstances. Students take core courses at any one of the distance learning sites on the participating campuses. Electives are taken at The University of Akron, Cleveland State University, NEOUCOM, Kent State University, Ohio University, or YSU. Electives are taken on the campus where they are being offered and may be taken anytime during the program.

Faculty Research Interests

Guang-Hwa (Andy) Chang, Ph.D., Professor of Mathematics and Statistics
Biostatistics
Youngstown State University

Alan M. Jacobs, Ph.D., Professor of Geological and Environmental Sciences
Environmental health sciences in public health
Youngstown State University

Amy Lee, M.D., M.P.H., M.B.A., Associate Professor of Community Medicine
Public health
NEOUCOM

Nancy Mosca, Ph.D., Professor of Nursing
Public health nursing, school health
Youngstown State University

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, applicants must hold a bachelor's degree from an accredited college or university, with a minimum GPA of 2.75. Applicants must have successfully completed a college-level mathematics or statistics course, and a college social science or natural science course, and have acceptable GRE scores within the last five years.

GRE scores may be waived if the applicant has a professional degree (master's or doctorate) in a relevant area. TOEFL is required from applicants from countries where English is not the language of instruction; the minimum score must be 550 (paper-based) or 213 (computer-based). Two years of work experience in a relevant field is highly recommended. The applicant must provide three letters of recommendation from individuals familiar with the applicant's academic or professional background. If the applicant has not been involved in an academic institution for two years or more, he or she may submit letters of recommendation by supervisors from his or her place of employment. The letters should include an assessment of the applicant's current work quality and ability to successfully complete graduate training. Letters are to be mailed to the following address:

M.P.H. Admissions Committee
Consortium of Eastern Ohio Master of Public Health
NEOUCOM
4209 State Route 44
PO Box 95
Rootstown, Ohio 44272

Degree Requirements

The curriculum consists of seven core courses, directed elective, required capstone project, and electives. In addition, one grant project, a capstone project, a portfolio, and an exit presentation are required. Students should plan on taking the core courses as a cohort. Core courses will be offered on Saturdays, one course in the morning and one in the afternoon. Students may take core courses in any one of the distance learning classrooms at the partner universities. Distance learning will involve interactive electronic technology and web-based learning. Students may take electives at any time in the program, and may select an elective from any of the partner universities from a list of approved electives.

If the student is interested in an elective that is not on the approved list, an Elective Approval form must be submitted, along with the course syllabus, for review and approval by the CEOMPH Curriculum Committee:

CEOMPH Curriculum Committee
Consortium of Eastern Ohio Master of Public Health
NEOUCOM
4209 State Route 44
PO Box 95
Rootstown, Ohio 44272

Students will be assigned an advisor upon entering the program. The advisor will offer guid-

ance on choosing electives appropriate to student career goals and interest. Students must maintain a minimum GPA of 3.0. The program requires 42 semester hours (pending approval) to comply with accreditation criteria.

Core Courses		**21 s.h.**
MPH 6901	Public Health Concepts	3 s.h.
MPH 6902	Social and Behavioral Sciences in Public Health	3 s.h.
MPH 6903	Epidemiology in Public Health	3 s.h.
MPH 6904	Biostatistics in Public Health	3 s.h.
MPH 6905	Health Services Administration in Public Health	3 s.h.
MPH 6906	Environmental Health Sciences in Public Health	3 s.h.
MPH 6908	Public Health Practice and Issues	3 s.h.
Electives		**15–18 s.h.**
MPH 6907	Grant Writing in Public Health Practice (directed elective)	3 s.h.
MPH 6994	Individual Investigation in Public Health	1–3 s.h.
MPH 6996	Practicum	3 s.h.
Required Project		**3–6 s.h.**
MPH 6997	M.P.H. Capstone Project (required)	3–6 s.h.
Total Hours Required or Degree		**42 s.h.**

Master of Science in Biology

Program Director

Mark D. Womble
4021 Ward Beecher Hall
(330) 941-4727
mdwomble@ysu.edu

Program Description

The Department of Biological Sciences offers a graduate program leading to the M.S. degree. This program provides both a strong foundation in fundamental principles and theories and an understanding of the advanced application of this information within the diverse disciplines of the life sciences. Students prepare, through coursework and faculty-guided original research, to pursue career paths in the professions, academia, research, business, and industry.

The Department of Biological Sciences is organized into the following divisions: (1) molecular biology, microbiology, and genetics; (2) physiology and anatomy; and (3) environmental biology. Students may pursue specific areas of specialization within these divisions, including ecology, microbiology, molecular biology, genetics, immunology, entomology, vertebrate physiology, neuroendocrinology, neurobiology, cell biology, or human anatomy.

The department is housed in Ward Beecher Hall. Specialized facilities include an analytical research laboratory housing modern analytical instruments, tissue culture laboratories, an animal facility, laboratories equipped for molecular and cellular research, and an extensive greenhouse facility. The department has exclusive use of two unique outdoor laboratories for field studies: the Youngstown State University Arboretum (a 115-acre reserve) and the Meander Reservoir (a 6,000-acre wildlife refuge and water impoundment), which collectively provide a valuable resource for environmental biology.

Faculty Research Interests

David K. Asch, Ph.D., Associate Professor
Gene regulation in eukaryotic organisms; carbon catabolite repression in Neurospora crassa

Jonathan J. Caguiat, Ph.D., Assistant Professor
Industrial microbiology and genetic and molecular biology techniques to characterize selenite and heavy metal resistant bacteria

Chester R. Cooper, Jr., Ph.D., Professor
Molecular biology and microbiology; morphogenesis and virulence of pathogenic fungi; identification of anti-fungal targets

Diana L. Fagan, Ph.D., Associate Professor
Microbiology and immunology; inflammation and regulation of immune responses

Carl Johnston, Ph.D., Associate Professor
Microbiology; microbial and fungal ecology; biotechnology use of fungi in clean up of contaminated soils

Robert E. Leipheimer, Ph.D., Professor and Chair
Reproductive neuroendocrinology; hormone-neurotransmitter interactions; regulation of reproductive behavior

Jill M. Tall, Ph.D., Assistant Professor
Effects of pharmacological interventions on acute inflammatory and chronic neuropathic pain

John D. Usis, Ph.D., Professor
Effects of environmental degradation on macroinvertebrate community structure and biodiversity; sociobiology and evolutionary biology

Gary Walker, Ph.D., Professor
Cellular growth and movement in embryonic tissue; development of cell free system for the study of molecular processes underlying cell division

Mark Womble, Ph.D., Associate Professor
Cellular and molecular mechanisms of neurotransmitter actions; control of neuron activity

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements applicants must have completed at least 20 semester hours of undergraduate biology courses (or equivalents which could include biochemistry) with at least a 2.7 grade point average, plus one year of organic chemistry, one year of introductory physics, and one semester of statistics. Students with deficiencies in these areas should contact the Biology graduate director prior to applying for admission. The Graduate Record Examination (general test) is also required and students must obtain an acceptable score. Admission to the biology education degree option requires a current teaching certificate or license.

Degree Requirements

Students may pursue the M.S. degree in biological sciences in one of three options. The thesis option is a research-intensive program designed to provide students a strong foundation in fundamental biological principles and theories through coursework and the completion of a faculty-guided research project (thesis). The nonthesis option allows students to gain an in-depth understanding of biology through coursework and the writing of a graduate research paper. The biology education option is designed for teachers, providing them with fundamental principles of biology and the application of this information through coursework and a graduate research project.

Thesis Option

Under this option, students work on a faculty-guided, original research project and gain practical experience in research techniques and data collection. It is designed for students who wish to pursue careers in academic or industrial laboratories or continue toward the Ph.D. degree.

A minimum of 36 semester hours of credit is required for the M.S. degree with thesis option. Students must submit an acceptable thesis proposal, pass an oral review of the proposal, submit an acceptable thesis reporting the results of a faculty-supervised research project, and pass an oral defense of the thesis. Students may repeat BIOL 6990 Master's Thesis Research to a maximum of six semester hours and must take one of the research methods courses (BIOL 6991, 6992, or 6993) to a maximum of six semester hours. All students must take two semester hours of BIOL 6988 Seminar in Biological Sciences and one semester hour of Topics (BIOL 6996–7000). An additional 21 semester hours of course work is required, with no more than eight semester hours at the 5000 level. A minimum grade point average of 3.0 is required for graduation.

Nonthesis Option

This option provides students with a strong understanding of biological theories and prin-

ciples but does not require an original research project. It is designed for students whose future goal is a nonresearch-oriented career, such as professional school or pharmaceutical sales.

A minimum of 38 semester hours of credit is required for the M.S. degree with a nonthesis option. Students must take BIOL 6994 Research Methods in Biology, which requires the submission of an acceptable graduate research paper and the oral review of this paper before their graduate committee. Students must also take two semester hours of BIOL 6998 Seminar in Biological Sciences and one semester hour of Topics (BIOL 6996–7000). An additional 33 semester hours of coursework must also be completed with no more than 12 semester hours at the 5000 level. Students must also pass a comprehensive exam administered by their graduate committee and achieve a minimum grade point average of 3.0 for graduation.

Biology Education Option

The Department of Biological Sciences has suspended admission to this option.

This option is designed to provide a broad foundation in fundamental biological principles for certified or licensed public school teachers. The required research project may be oriented toward either original laboratory research or pedagogical classroom applications.

A minimum of 38 semester hours of credit is required for the M.S. degree with biology education option. Students must take four semester hours of BIOL 6995 Research in Biological Education, which requires the submission of an acceptable graduate research project and an oral defense of this project before their graduate committee. Students must also take one semester hour of topics (BIOL 6996–7000) and an additional 33 semester hours of coursework, of which no more than 12 semester hours may be at the 5000 level. Students must pass a comprehensive exam administered by their graduate committee and achieve a minimum grade point average of 3.0 for graduation.

Advisement

Each student's course of study will be devised in consultation with the student's major advisor and will be approved by the student's graduate committee. The course of study will be based on the student's area of specialization, background, and career interests. Students must have their course schedules approved by their major advisor or the graduate director every semester.

Master of Science in Chemistry

Program Director

Josef Simeonsson
6001 Ward Beecher Hall
(330) 941-3750
jbsimeonsson@ysu.edu

Program Description

The Department of Chemistry offers a program of study leading to the M.S. degree with concentrations available in analytical, biochemical, inorganic, organic, and physical chemistry and in chemistry education. The program prepares the student for practice as a professional chemist by teaching academic fundamentals, creative and independent thinking through independent study and research, and leadership skills through interaction with undergraduate students as graduate teaching assistants. The program is also excellent preparation for further advanced study at other institutions, leading to the Ph.D. degree in chemistry or professional degrees in chemistry-related fields. The department has state-of-the-art instrumentation facilities and has readily available a wide range of instruments for student and faculty research including 400 MHz NMR, FTIR, ICP-AES, AA, GC-MS, LC-MS, high resolution MS, several HPLCs, a powder and three single-crystal X-ray diffractometers, X-ray fluorescence, thermogravimetric analyzer, differential scanning calorimeter, gel permeation chromatograph, diode array spectrophotometers, and electrochemical systems.

Faculty Research Interests

G.K. Balendiran, Ph.D., Associate Professor
Biomolecular structural biochemistry; structure and function of biological molecules and manipulation of their physiological properties with novel chemicals for health benefits

Larry S. Curtin, Ph.D., Associate Professor
Electroanalytical chemistry; synthetic inorganic chemistry; self-assembled monolayers; buckminsterfullerene; conducting polymers and charge transfer salts

Allen D. Hunter, Ph.D., Professor
Remote access to and automation of networks of scientific instrumentation (CyberTechnology), including collaborative software and instrument development; synthesis and characterization of new nanoscale molecular materials; structural studies in the solid state (X-ray diffraction) and solution (NMR); chemical education research; collaborations with business and industry, including cybertechnology, metrology, and materials and science engineering

John A. Jackson, Ph.D., Associate Professor
Synthetic organic chemistry; organophosphorus chemistry; synthetic methodology; biologically active compounds; asymmetric synthesis

Friedrich W. Koknat, Ph.D., Professor
Transition metal cluster compounds

Brian D. Leskiw, Ph.D., Assistant Professor
Mass spectrometric investigation of various compounds, including chemical vapor deposition precursors, substituted phenols, and trace analysis of pyrazines/haloanisoles

Clovis Linkous, Ph.D., Professor
Hydrogen energy technology, particularly photoelectrochemical/photocatalytic hydrogen production and development of fuel cell components

Sherri R. Lovelace-Cameron, Ph.D., Associate Professor
Synthesis and electrochemical studies of transition metal organometallic complexes; modification of silicate surfaces with phosphonates; using service learning or cultural information in science courses to enhance student learning

Howard D. Mettee, Ph.D., Professor
Computational chemistry and modeling of active site energetics in enzyme catalysis; physical and chemical modification of hardwoods and charcoal to enhance water filtration characteristics; synthesis and evaluation of dimethyacrylate-based resins as articular cartilage materials for degraded, weight-bearing joints

Daryl W. Mincey, Ph.D., Professor and Chair
Analysis of environmental materials

Peter Norris, Ph.D. Professor
Synthesis of novel heterocycles and carbohydrate mimics

Michael A. Serra, Ph.D., Associate Professor
Effects of free radicals on proteins

Nina V. Stourman, Ph.D., Assistant Professor
Studies of bacterial functional genomics during response to stress; bacterial glutahione metabolism and the mechanism and biological role of bifunctional enzyme glutahionyl spermidine synthetase/amidase (GSS) and its products in *E. coli*.

Josef B. Simeonsson, Ph.D., Associate Professor
Atomic and molecular spectrometry methods, analytical laser spectroscopy methods-fluorescence, ionization and Raman, environmental analysis, plasma spectroscopy, plasma diagnostics

Timothy R. Wagner, Ph.D., Professor
Synthesis of inorganic oxide and mixed-anion materials; structure characterizations using single crystal & powder X-ray diffraction; electron microscopy techniques

Admission Requirements

In addition to the minimum admission requirements of the School of Graduate Studies and Research, an applicant for admission to the M.S. degree program in the Department of Chemistry must present an undergraduate major in chemistry or the equivalent. Ordinarily, this entails the completion of at least a year's study in both organic and physical chemistry. In those cases where the undergraduate preparation is slightly deficient, the applicant may be admitted with provisional status with the approval of the chair of the Chemistry Department and the Graduate Dean. Students must also achieve an acceptable score on the Graduate Record Examination general test (GRE) for admission to the program.

Degree Requirements

A minimum of 35 semester hours of credit is required for the M.S. degree. CHEM 6980, 6981,

and 6982 are required of all students, with 6980 taken in the first year of study. Additionally, from nine to 15 semester hours of content courses in chemistry are required, depending on performance in placement exams. A minimum of six semester hours of CHEM 6990 is also required for the degree. Teaching assistants must take CHEM 6975 in the first year and also register each semester for 6976, 6977, 6978, or 6979 (in addition to the 35 semester hour minimum) as assigned by the department chairperson. For graduation, the student must achieve a grade point average of 3.0 or higher in chemistry and must complete an acceptable research proposal, written thesis, and oral defense of the thesis.

Advisement

Entering students are advised by the program director. Within the first semester of full-time graduate studies, the student should select a thesis advisor, who will assist the student in planning the remainder of the program. Within the first year of full-time graduate studies, the student should select a thesis advisory committee in consultation with the thesis advisor. The committee, including the advisor, will meet periodically with the student to evaluate the progress of the research and to provide guidance.

Master of Science in Criminal Justice

Program Director

John M. Hazy
2087 Cushwa Hall
(330) 941-1789
Fax: (330) 941-7206
jmhazy@ysu.edu

Program Description

The Master of Science in criminal justice at YSU provides professional education for criminal justice students. Criminal Justice faculty members are currently involved in research in police management theory, applied police management, correctional organization and treatment, crime statistics, and criminological theory. Students are encouraged to participate in this ongoing research.

Students considering a career in the field of criminal justice should be aware that many employers and agencies may require applicants to meet certain preemployment qualifications. These may include, but are not limited to, lack of a criminal record, satisfactory background checks, physical standards and conditions, and emotional stability.

Faculty Research Interests

James A. Conser, Ph.D., CPP, Professor Emeritus
Police administration; personnel management; security; loss prevention; law enforcement; training, and education

John M. Hazy, Ph.D., Assistant Professor and Graduate Coordinator
Methodology (research and statistics); teaching, community health; life course issues; bioterrorism preparedness

Christian Onwudiwe, Ph.D., Assistant Professor
Comparative studies in criminal justice and political science; foreign policy of major powers; international crime

C. Allen Pierce, Ph.D., Professor
Homicide studies; crime statistics (longitudinal studies); criminal justice education; police human resource allocation; police use of force and violence studies

Admission Requirements

While an undergraduate degree in this discipline is not required for admission, a substantial background in the social sciences is preferred. Students lacking such preparation will, at the discretion of the department, be required to make up deficiencies. Each student must have completed the equivalent of CRJUS 1500 Introduction to Criminal Justice, a course in criminology and/or crime and delinquency, an introductory course in statistics, and a research methodology course. Students admitted with deficiencies in any of these requirements must remove them by completion of the second semester of graduate coursework.

Regular Admission

To obtain regular admission, students must have an unrecalculated cumulative grade point average in undergraduate work of 3.0 or higher (on a 4.0 scale) or a satisfactory standardized test

score (30th percentile or higher on the LSAT overall, GRE overall, or MAT group overall score) and undergraduate GPA of 2.7 or higher. If students meet these criteria but have undergraduate coursework deficiencies, they may be granted provisional admission.

Provisional Admission

To obtain provisional admission, a student with an unrecalculated cumulative grade point average in undergraduate work of 2.5 to 2.69 must submit a satisfactory standardized test score (30th percentile or higher on the LSAT overall, GRE overall, or MAT group overall score). Students with an unrecalculated cumulative grade point average in undergraduate work below 2.5 will be considered for provisional admission if they (1) submit a satisfactory standardized test score and (2) had an undergraduate grade point average of 3.2 or higher (on a 4.0 scale) in the last 40 hours of coursework.

Upon admission to the criminal justice graduate program and selection of emphasis area, each student is guided by a committee of three faculty members. The student selects a graduate advisor in the area of concentration from the faculty of the Department of Criminal Justice and Forensic Sciences. This advisor serves as the chair of the student's graduate committee. The student and advisor select the other two members of the committee, both of whom must be members of the graduate faculty and one of whom may come from a department other than Criminal Justice. This committee will assist the student as appropriate with the planning of the program, preparation and oral defense of the thesis, or the graduate paper and its defense in the case of the nonthesis option.

Degree Requirements

The graduate program in criminal justice adheres to the position that the administration of criminal justice is a continuous, integrated process from prevention of crime through completion of all legal intervention. The program is designed to provide society with individuals who have both a substantial awareness of the overall system and the essential competencies required to perform professional roles within it. To achieve this objective, the program broadens the student's knowledge of the total criminal justice process and provides professional education so that its graduates may assume positions of leadership within the criminal justice system. The program also prepares students for doctoral studies in criminal justice or criminology.

Students seeking the M.S. degree in criminal justice may elect either a thesis or nonthesis option. The Department of Criminal Justice and Forensic Sciences will accept courses from other departments offering 5000- or 6000-level courses. Students should see their graduate advisor or graduate coordinator when selecting these courses.

Thesis Option

A minimum of 30 semester hours is required in this option, of which up to six hours may be thesis. No more than nine semester hours may be below the 6900 level.

Nonthesis Option

A minimum of 35 semester hours is required of which no more than 12 semester hours may be below the 6900 level. The nonthesis option will require a major graduate research paper worth two credits and an oral exam (defense) upon its completion.

The graduate curriculum consists of two major components:

- Study in the general substantive areas of criminal justice, met by completing the graduate core of CJUS 6910, 6920, 6925, 6942, 6970, and 6980. Any departure from this requires prior approval of the student's committee and graduate coordinator.
- Study in courses outside the core

Academy Training and Life Experience

Opportunities are available through the Department of Criminal Justice and Forensic Sciences for students who do not have life experience or police academy training.

Master of Science in Environmental Studies

Program Director

Peter Norris, Interim Chair
2119 Moser Hall
(330) 941-2147
pnorris@ysu.edu

Program Description

The environmental studies program offers a multidisciplinary, interdepartmental graduate program leading to a Master of Science degree. The program office is housed in Moser Hall and is administered by the Department of Geological and Environmental Sciences (GES). This program is intended for individuals who have undergraduate degrees in environmental studies/science, other natural or social sciences, engineering, or health professions. It is designed to meet the needs of students and working professionals preparing for supervisory roles in environmental science (research and management), with emphasis on a risk-based approach to the solving of environmental problems. The curriculum requires students to broaden their knowledge with core courses in environmental studies, to deepen their expertise with elective courses in one of four disciplines, and to demonstrate their abilities to prepare a scholarly thesis. This degree will benefit students who are planning careers with regulatory agencies, industries seeking regulatory compliance or focusing on environmental management systems, research facilities, and consulting firms providing state-of-the-art assessment, management, and remediation.

Faculty Research Interests

Isam E. Amin, Ph.D., Associate Professor
Ground water contamination and remediation; characterization and remediation of Mahoning River banks; sediment transport in rivers and streams; intra-state water conflicts

Felicia Armstrong, Ph.D., Assistant Professor
Environmental chemistry of soils; ecotoxicology; soil remediation

Raymond Emil Beiersdorfer, Ph.D., Professor
Environmental geochemistry

Jeffrey C. Dick, Ph.D., Associate Professor
Groundwater occurrence and contamination; coastal processes; geographic information system applications in environmental problems

Alan M. Jacobs, Ph.D., Professor
Site characterization; health risk assessment; project management; groundwater contamination

Shane V. Smith, Ph.D., Assistant Professor
Stratigraphy; sedimentology; volcanology; Shenango River assessment and restoration

Associated Faculty Research Interests

Scott C. Martin, Ph.D., Professor of Civil and Environmental Engineering
Constructed wetlands; water quality modeling; Mahoning River assessment and remediation

Carl G. Johnston, Ph.D., Associate Professor of Biological Sciences

Environmental microbiology; microbial ecology; bioremediation using indigenous microbes and fungi

Douglas M. Price, Ph.D., Associate Professor of Civil and Environmental Engineering
Carbon dioxide capture; evaluation of point-source carbon dioxide footprint at manufacturing facilities; biofuel production by fermentation; membrane separation of gases

Bradley Shellito, Ph.D., Associate Professor of Geography
Applications of geospatial technology (Geographic Information Science, Remote Sensing, Global Positioning Systems, and 3D Modeling)

Josef B. Simeonsson, Ph.D., Associate Professor of Chemistry
Analytical chemistry including atomic and molecular spectrometry methods; trace and ultratrace analysis; analytical laser spectroscopy methods-fluorescence; ionization and Raman; environmental analysis and clinical analysis; biogeochemical cycling of trace species; environmental remediation; biological trace element research; flame and plasma diagnostics; plasma spectroscopy

Admission Requirements

Graduates of regionally accredited baccalaureate programs in environmental studies, civil and environmental engineering, and physical and biological sciences may proceed with the Master of Science degree without deficiencies, in most cases. Graduates in social sciences and other programs may be required to complete coursework deficiencies in science and math. Students must also demonstrate that their undergraduate program comprised study equivalent to that currently required for a Bachelor of Science degree in environmental studies at YSU (as stated in the *Undergraduate Catalog* in the year of admission), especially with regard to mathematics and statistics, environmental chemistry, field and laboratory techniques, and environmental regulations. In those cases where the undergraduate preparation is deficient in three or fewer courses, students may be admitted with provisional status and must remove the deficiencies by satisfactorily completing appropriate undergraduate courses with a grade of B or better. Students with an undergraduate course deficiency greater than three courses will be asked to remove the deficiency as a postbaccalaureate, undergraduate student.

An unrecalculated cumulative undergraduate minimum grade point average of 2.7 (on a 4.0 scale) is required for admission without the Graduate Record Examination (general test). Students with grade point averages below 2.7 are required to complete the Graduate Record Examination prior to admission. The dean of the School of Graduate Studies and Research may consider provisional admission of a student with less than a 2.7 grade point average if a satisfactory Graduate Record Examination score is achieved.

Degree Requirements

Each student admitted to the program will meet with the director to choose members of the student's advisory/thesis committee. The committee will consist of three to five faculty members in appropriate fields of expertise and one nonfaculty professional. The nonfaculty member must qualify for appointment as an adjunct graduate faculty member at YSU.

Upon admission to the program, the student's course of study will be devised through consultation with the student's advisory/thesis committee. The course of study will be based on the student's area of specialization, background, and career interests. The core courses are science intensive, whereas the choices of electives emphasize one or more of the following disciplines:

- Chemistry and chemical engineering

- Biology and health
- Environmental geology and engineering
- Business management

All students in the environmental studies graduate program must have their course schedules approved by graduate advisors every semester.

The thesis shall advance knowledge in environmental science and be applicable to the solving of environmental problems. The thesis will include a formal document and a draft article in journal format suitable for publication submittal. Five prescribed core courses (15 semester hours), discipline-based electives (12 semester hours), and a thesis (six semester hours) are required for the Master of Science degree. Upon completion of coursework with a cumulative graduate grade point average of 3.0 or higher, students must earn a passing grade of 75 percent on a comprehensive written examination, which may cover both completed course material and general environmental issues.

Six semester hours of thesis work must progress according to the following prescribed milestones.

Prior to beginning thesis work, students will be asked to do the following:

- Choose a topic after six semester hours (of nonthesis coursework) have been completed
- Submit an outline after 12 semester hours
- Submit a formal proposal after 15 semester hours semester hours

Each proposal must be reviewed and approved by all members of the advisory/thesis committee.

As thesis work progresses, students must submit the following:

- Progress reports after two, four, and six semester hours (of thesis coursework) have been completed
- A draft thesis document after five semester hours
- A final draft and draft journal article after six semester hours

Each document must be reviewed and approved by all members of the advisory/thesis committee.

After the final draft and draft journal article are deemed acceptable, students are required to defend the results of the research in an oral presentation before the advisory/thesis committee for final approval.

Core Courses **15 s.h. required**

These courses are designed to provide breadth in environmental science and understanding of environmental issues and regulations.

ENST 6900	Advanced Environmental Studies	3 s.h.
ENST 6901	Sources of Contamination	3 s.h.
ENST 6920	Environmental Compliance	3 s.h.
ENST 6921	Industry/Institutional Management for the Environmental Professional	3 s.h.
ENST 6931	Ecological Risk Assessment	3 s.h.

Thesis **6 s.h. required**

ENST 6990	Thesis	1–6 s.h.

Electives **12 s.h. required**

These courses are designed to provide depth in disciplines appropriate for student's backgrounds and career goals and may be chosen from one or more of the following categories:

Chemistry and Chemical Engineering

CEEN 6920	Wetlands Engineering	3 s.h.

CEEN 6972	Advanced Topics in Environmental Engineering	3 s.h.
CHEN 5820	Industrial Pollution Control	3 s.h.
CHEM 5804	Chemical Instrumentation	4 s.h.
CHEM 5821	Intermediate Organic Chemistry	3 s.h.
CHEM 6921	Advanced Biochemistry I	3 s.h.
CHEM 6922	Advanced Biochemistry II	3 s.h.
CHEM 6941	Advanced Organic Chemistry I	3 s.h.
CHEM 6942	Advanced Organic Chemistry II	3 s.h.
CHEM 6951	Advanced Physical Chemistry I	3 s.h.
CHEM 6952	Advanced Physical Chemistry II	3 s.h.
GEOL 5817	Environmental Geochemistry	3 s.h.

Biology and Health

AHLT 5807	Epidemiology	3 s.h.
BIOL 5804	Aquatic Biology	3 s.h.
BIOL 5806	Field Ecology	4 s.h.
BIOL 5853	Biometry	3 s.h.
BIOL 6950	Comparative Animal Physiology	4 s.h.
BIOL 6952	Experimental Design	3 s.h.
BIOL 6954	Advanced Ecology	3 s.h.
BIOL 6996	Topics in Environmental and Biological Interaction	1 s.h.
ENST 5830	Risk Assessment	3 s.h.

Environmental Geology and Engineering

CEEN 6920	Wetlands Engineering	3 s.h.
CEEN 6967	Biological Treatment Processes	3 s.h.
CEEN 6972	Advanced Topics in Environmental Engineering	3 s.h.
CEEN 6975	Physical and Chemical Treatment Processes	3 s.h.
ENGR 6925	Applied Environmental Management	3 s.h.
ENST 5800	Environmental Impact Assessment	3 s.h.
GEOL 5815	Geology and the Environment II	3 s.h.
GEOL 6910	Advanced Aquifer and Well Hydraulics	3 s.h.
GEOL 6950	Selected Topics in Geology	1–3 s.h.

Business Management

ENST 6910	Environmental Management Systems Standards (ISO14001)	1 s.h.
ENST 6930	Risk Management	3 s.h.
MGT 6900	The Foundation of Management	2 s.h.
MGT 6925	Quality Management	3 s.h.

No more than nine semester hours may be from the 5800-level (swing) courses. Additional background courses (undergraduate or graduate) may be required as prerequisites for some of the graduate courses. Credits earned for the graduate certificate in environmental studies may be applied to the Master of Science degree to the extent allowed by the School of Graduate Studies and Research (normally nine semester hours). The following undergraduate courses will not qualify for the master's degree but are suggested for career preparation:

AHLT 4831	Industrial Hygiene	3 s.h.
BIOL 4805	Ichthyology	3 s.h.
CEEN 4837	Environmental Engineering Design	3 s.h.
CHEM 3739	Physical Chemistry I	4 s.h.
CHEM 3740	Physical Chemistry II	4 s.h.
CHEM 3764	Chemical Toxicology	2 s.h.

Master of Science in Mathematics

Program Director

Jamal K. Tartir
1045 Cushwa Hall
(330) 941-1812
tartir@math.ysu.edu

Program Description

The Department of Mathematics and Statistics offers the M.S. degree in mathematics. Options for this degree include predoctoral studies, applied mathematics, computer science, secondary mathematics, and statistics. Graduate faculty members have a broad range of research interests in both pure and applied areas. The curriculum stresses theoretical as well as computational mathematics and is flexible enough to key a student's program to individual interests and abilities. Receiving a well-rounded education in mathematics, graduates can pursue a Ph.D., secure a position in government or industry, or further a teaching career. The department has extensive computing facilities that include microcomputers, workstations, mainframe, and access to supercomputers.

Facilitation of Ph.D. Programs

The Department of Mathematics and Statistics, by informal collaboration with certain Ph.D. granting institutions, facilitates a Ph.D. program for students wishing to pursue a doctorate in selected research areas represented by the combined graduate mathematics faculties of Youngstown State University and these other universities. Upon successful completion of all doctoral work, the Ph.D. is granted by the collaborating university. For admission and degree requirements, contact the graduate program director in the Department of Mathematics and Statistics.

Faculty Research Interests

Guang-Hwa (Andy) Chang, Ph.D., Professor
Statistics; computer vision

Jacek Fabrykowski, Ph.D., Professor
Analytic number theory

Frank Ingram III, Ph.D., Assistant Professor
Symmetric functions; lie algrebras

Steven L. Kent, Ph.D., Professor
Mathematical physics; Yang-Mills theory

G. Jay Kerns, Ph.D., Associate Professor
Signed measures; infinite divisibility; exchangeability in probability and statistics; applications of stochastic processes

Roy A. Mimna, Ph.D., Associate Professor
General topology; fractal geometry

Anita C. O'Mellan, Ph.D., Professor
Graph theory; combinatorics; early childhood mathematics education

Zbigniew Piotrowski, Ph.D., Professor

General topology; real analysis; descriptive set theory; topological algebra

Nathan P. Ritchey, Ph.D., Professor and Chair
Operations research; applied mathematics; medical decision making; stochastic modeling

Stephen E. Rodabaugh, Ph.D., Professor
Foundations of topology and fuzzy logic: point-set, lattice-theoretic, and categorical methods

Thomas D. Smotzer, Ph.D., Professor
Real analysis; complex analysis; operator theory

Angela Spalsbury, Ph.D., Associate Professor
Functional analysis; operator theory; measure theory

Jamal K. Tartir, Ph.D., Associate Professor
Set-theoretic topology

Eric J. Wingler, Ph.D., Professor
Real analysis; complex analysis; operator theory

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, students must also have the following:

- An unrecalculated undergraduate cumulative grade point average of at least 3.0 (on a 4.0 scale) in all undergraduate mathematics, statistics, and computer science courses
- A completed sequence in standard calculus comparable to MATH 1571 Calculus I, MATH 1572 Calculus II, and MATH 2673 Calculus III, including multivariable calculus
- Previous courses in discrete structures and linear algebra comparable to MATH 3715 Discrete Mathematics and MATH 3720 Linear Algebra and Matrix Theory
- Evidence of success in abstract mathematical reasoning

Students not satisfying all of the above may be admitted with provisional status subject to the approval of the graduate program director and the graduate dean.

Degree Requirements

- A minimum of 33 semester hours of credit
- A cumulative grade point average of at least 3.0
- Students entering without a prior course in abstract algebra must include MATH 5821 in their program, to be taken in the earliest available semester, and students entering without a prior course in theoretical analysis must include MATH 5851 in their program, to be taken in the earliest available semester. These courses are not included in the 33-semester-hour minimum requirement.
- The student's combined undergraduate and graduate programs must include a mathematics core comprising the following courses or their equivalent:
  MATH 5825 Advanced Linear Algebra
  MATH 5852 (theoretical multivariable analysis)
  MATH 6915 Mathematical Foundations or MATH 6980/6984 Topology I/Mathemati cal Logic I
  MATH 6920 Advanced Abstract Algebra
  Graduate level course in applied mathematical science
  MATH 6996 Mathematical Project or MATH 6999 Thesis

- Satisfactory performance on written and oral examinations. The subject matter for these examinations should in part reflect both the core curriculum and the option selected (see Description of Options below) and must be approved by the Graduate Executive Committee. Additionally, the following distribution requirements apply:
  Written exams on three courses
  Oral exam on thesis, or oral exam on a project and two courses
  At least half of the hours of the courses examined must be at the 6900 level
  At least one course from MATH 5825, 5852, 6915, or 6920 must be examined
- Before completing 12 semester hours, the student should submit, through an advisor, the entire degree program for approval by the Graduate Executive Committee in the Department of Mathematics and Statistics. Subsequent revisions to this program must be approved by the Graduate Executive Committee. An abstract of the proposed thesis for six semester hours or project for three semester hours must be submitted for approval prior to registering for these hours.
- At least half the hours of the student's approved program must be at the 6900 level

Description of Options

There are several options, beyond the core, that a graduate student may choose. In the description of these options, depth means at least two courses in a sequence at the 5800/6900-level. In each option MATH 6995 may be used where appropriate up to a total of 12 semester hours.

Option I: Predoctoral Studies in Mathematics and Applied Mathematics

Coursework beyond the core should include MATH 6965, 6975, and 6980. The student should select at least one area of depth in consultation with an advisor so as to best prepare for future education. For a student in pure mathematics, examples of depth might include, but are not limited to, the sequences MATH 5822/6920, 6965/6966, 6975/6976, 6980/6981, 6984/6985. For a student in applied mathematics, examples of depth include, but are not limited to, MATH 5855/6955, 5861/6925, 6943/6944, 6943/6945, 6975/6976.

Option II: Statistics (Including Actuarial Science)

Students choosing this option should plan their graduate program, in consultation with statistics faculty, to include at least 15 semester hours of statistics coursework. Coursework beyond the mathematics core should include a statistics core comprising STAT 6940, 6943/6944, and 6948. Depth includes these courses: STAT 6945, 6946, 6949. Additional recommended courses include STAT 5840, 5846, 5847, 5848, 5849, and MATH 6965.

Students interested in actuarial science should have taken the statistics core (defined in the preceding paragraph) along with ECON 6912, 6922, FIN 6900, MATH 5860, and STAT 6945. Additional recommended courses include ECON 6939, 6940, MATH 5845, and 6942.

Option III: Applied Mathematics

As a traditional applied option, coursework beyond the mathematics core should include the first course in each of the following sequences: MATH 5845/6942, 5855/6955, and 5861/6925, as well as a second course for depth from at least one of these sequences. Courses in statistics and complex variables, including MATH 6975/6976, STAT 6943/6944, and 6945, are also highly recommended for students taking this option.

A student choosing this option may select graduate courses outside the Department of Mathematics and Statistics to complement a specific interest, subject to approval by the Graduate Executive Committee. Additionally, students choosing this option should have coursework in computer science either as part of their graduate program or prior to beginning the graduate program.

Option IV: Secondary/Community College Mathematics

Coursework beyond the core should include MATH 5828 or 5835, 5830 or 6930 and STAT 6940 or 6943, as well as one additional course for depth chosen from MATH 6920, 6928, 6933, 6937, 6938, or 6944, or some other course approved by the Graduate Executive Committee. Those students seeking certification should consult an advisor in the School of Education.

Option V: Computer Science

Students in this option should plan their graduate program in consultation with advisors in both the Department of Mathematics and Statistics and the Department of Computer Science and Information Systems. Coursework beyond the core should include MATH 5835 and 5861. Selections from MATH 6925, 6937, 6938, or 6984/6985 are also advised. At least 12 semester hours should be in computer science and include CSCI 6905, 6910, and 6915, unless the student had this material previously, in which case the depth requirement can be satisfied by including other 6900-level computer science courses. Students in this option may elect to do their project or thesis in computer science.

Option VI: Individualized Program of Study

Students with a career goal not addressed by the options above will select coursework beyond the core appropriate to this goal, including depth, in consultation with an advisor and subject to the approval of the Graduate Executive Committee.

Master of Science in Education—Counseling

Program Director

Jake Protivnak
3403 Beeghly Hall
(330) 941-1936
jjprotivnak@ysu.edu

Program Description

The counseling program prepares individuals to serve as professional counselors for school, college, and community mental health settings. In addition, the department sponsors an option in student affairs leadership and practice. Graduates of this program are trained to assume positions in community colleges, four-year colleges, and universities in such areas as residential life, student activities, advising and orientation, admissions, and other applicable areas in student services. The required core courses are those considered to represent basic knowledge and skills essential for professional counselors in all environments. The common core includes courses in professional orientation, counseling theory, counseling skills, career counseling, group counseling, assessment, research methods, and consultation. In addition to the core courses, specialty studies must be completed before beginning an internship in the student's area of specialization.

The community counseling and school counseling options are accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). The community counseling program is also recognized by the state of Ohio's Counselor, Social Worker, and Marriage and Family Therapist Board. The curriculum enables graduates to pursue the Ohio Professional Counselor licensure and the Professional Clinical Counselor licensure. The school counseling program is also accredited by the National Council for Accreditation of Teacher Education (NCATE) and is approved by the Ohio Department of Education.

The emphasis in the student affairs leadership and practice option is practitioner based and employs full-time faculty as well as higher education administrators to teach coursework. Beginning in the fall of 2006, the student affairs program revision also reflects a program based on CACREP accreditation standards.

The department also sponsors a community clinic that provides free counseling services to residents of the Youngstown area. All students in the community and school counseling options take one practicum course and counsel clients via the clinic during their first practicum experience.

Competitive scholarships and graduate assistantships are available for both part-time and full-time study in all options. Applications are available through the department office and the School of Graduate Studies and Research.

School Counseling

The 52-semester-hour school counseling option meets the education requirements for school counselor licensure in the state of Ohio. Students seeking school counselor licensure who do not have teacher certification in Ohio must have completed an approved school counseling program with a one-year induction process. Students must also pass the school counseling specialty portion of the Praxis Exam administered by Educational Testing Service for the State of Ohio or any other state required standardized testing. Students seeking school counselor licensure/certification in other states, such as Pennsylvania, have the responsibility to ensure that they meet the requirements of those particular states. Internships must be completed in approved educational settings. In order to provide a comprehensive experience, Practicum II/Internship are only offered beginning in the fall semester of the final year in the program. This experience is comprised of 750 supervised hours in an approved setting in an August through June format.

Community Counseling

Community counselors can work with children, adolescents, and/or adults and are employed in a variety of settings, such as mental health facilities, community human services centers, crisis intervention agencies, clinical forensic settings, chemical dependency treatment programs, and hospitals. A completed 600-hour internship in an appropriate community setting is required. Students interested in community counseling complete a 61-semester-hour curriculum that is recognized by the state of Ohio's Counselor, Social Worker, and Marriage and Family Therapist Board. The curriculum enables graduates to pursue Ohio Professional Counselor licensure and Professional Clinical Counselor licensure. Students seeking counselor licensure in other states, such as Pennsylvania, have the responsibility to ensure that they meet the requirements of those particular states.

Student Affairs Leadership and Practice

The student affairs leadership and practice option is a student development/skill-based program that has been recently revised to include additional coursework and innovative practicum experiences that further incorporate professional standards, knowledge, and skills into a student's graduate experience. This program option consists of a 48-semester-hour curriculum. The student affairs leadership and practice program prepares future student affairs practitioners to provide effective leadership within student affairs and higher education organizations. The program emphasizes a reflective leadership model through the integration of counseling, student affairs, leadership, and experiential perspectives. Through the integration of these multiple perspectives, students are prepared to enhance learning and development.

Faculty Research Interests

Deborah Jackson, Ph.D., Assistant Professor
College counseling; alcohol and drug education and use on college campuses; stress management; wellness

Victoria E. Kress, Ph.D., Associate Professor
Self-injurious behavior; counseling sexual trauma survivors; counselors' use of the DSM; posttraumatic stress disorder; gender issues; clinical supervision

Don Martin, Ph.D., Professor
School counseling; family therapy; academic achievement among students of poverty; character education/emotional intelligence

Kenneth L. Miller, Ph.D., Associate Professor
Web-based instruction design; cultural attitudes and behaviors measurement; HIV/AIDS education; gender equity issues

Jake Protivnak, Ph.D., Assistant Professor
School counseling; supervision; counselor development

Admission Requirements

No specific undergraduate major is required for admission to the graduate program in counseling. Although there are no specific course prerequisites for entry, faculty may recommend specific coursework for students without preparation in the social sciences. Undergraduate and/or graduate grade point average, a letter of intent, letters of recommendation, and a required interview are important factors in determining the admissibility of an applicant to the counseling degree program. Every applicant will be interviewed by members of the Counseling Admissions Committee

and must meet the standards prescribed in the counseling program's admission policies. Since the Counseling admission standards exceed the minimum standards set by the School of Graduate Studies and Research, all applicants must obtain a copy of the admissions policies from the Department of Counseling and Special Education before formally applying for admission. Students should be aware that the policies have been revised as of May 2005 and now include deadlines for application for admission.

Individuals who have a master's degree in counseling and are interested in taking coursework toward clinical endorsement and/or continuing education should contact the counseling program. Applicants admitted on a provisional basis must maintain a 3.0 GPA during the first nine credit hours of coursework in order to be considered for regular admission. Students enrolled in any of the counseling programs must maintain a 3.0 grade point average throughout their program of study.

Degree Requirements

Students are required to complete appropriate coursework for their program option, including satisfactory completion of the counseling comprehensive examination prior to beginning their field placements. Coursework related to specialized cognate areas (e.g., electives and/or thesis) serve to enhance each program option.

Eight semester hours of internship are required in the community and school program options, and six semester hours are required in the student affairs leadership and practice option. Since this requirement entails 20 hours per week at the internship site, students who are employed full time may need to arrange for leaves of absence with their employers to fulfill this requirement.

School Counseling Program Curriculum		**52 s.h.**
COUN 5821G	Life Span Development and Counseling	3 s.h.
COUN 6900	Counseling Methods and Practice	3 s.h.
COUN 6961*	Orientation and Ethical Issues in School Counseling	3 s.h.
COUN 6962	Counseling Theory	3 s.h.
COUN 6964	Appraisal Techniques in Counseling	3 s.h.
COUN 6968	Research in Counseling	3 s.h.
COUN 6972	Career Counseling	3 s.h.
COUN 6973	Group Counseling: Theory and Practice	2 s.h.
COUN 6973L	Group Counseling Lab	1 s.h.
COUN 6976	Social and Cultural Issues in Counseling	3 s.h.
COUN 6991	Family Systems	3 s.h.
COUN 7001	Counseling Practicum I	3 s.h.
COUN 7003	Counseling Children and Adolescents	3 s.h.
COUN 7007	School Counseling Practicum II	2 s.h.
COUN 7009	School Counseling Internship	4–8 s.h.
COUN 7013A	Diagnosis and Treatment of Children and Adolescents	3 s.h.
COUN 7014D	School Counseling Program Development	2 s.h.

Comprehensive examination prerequisites: COUN 5821G, 6900, 6961, 6962, 6964, 6968, 6972 6973, 6973L, 6976, 7013A.

Electives 2 s.h.

See Note after the Community Counseling Program Curriculum.

Community Counseling Program Curriculum		**61 s.h.**
Core		50 s.h.
COUN 5821G	Life Span Development and Counseling	3 s.h.
COUN 5898*	Orientation and Ethical Issues in Professional Counseling	3 s.h.

* Must be taken within the first three semesters of enrollment.

COUN 6900	Counseling Methods and Practice	3 s.h.
COUN 6962	Counseling Theory	3 s.h.
COUN 6964	Appraisal Techniques in Counseling	3 s.h.
COUN 6968	Research in Counseling	3 s.h.
COUN 6972	Career Counseling	3 s.h.
COUN 6973	Group Counseling Theory and Practice	2 s.h.
COUN 6973L	Group Counseling Lab	1 s.h.
COUN 6976	Social and Cultural Issues in Counseling	3 s.h.
COUN 6980	Diagnosis of Mental Disorders	3 s.h.
COUN 6991	Family Systems	3 s.h.
COUN 7001	Counseling Practicum I	3 s.h.
COUN 7002	Counseling Practicum II	3 s.h.
COUN 7010	Community Counseling Internship	4–8 s.h.
COUN 7031	Clinical Psychopathology and Treatment	3 s.h.
COUN 7032	Clinical Intellectual Testing	3 s.h.
COUN 7037	Psychopharmacological Treatment of Mental and Emotional Disorders	3 s.h.
COUN 7040	Supervision Practicum	3 s.h.

Comprehensive examination prerequisites: COUN 5821G, 5898, 6900, 6962, 6964, 6968, 6972, 6973, 6973L, 6976, 6980.

Electives	2 s.h.
COUN 5967 Summer of Growth Workshop	2–3 s.h.

NOTE: Internship placement involves a minimum of 600 clock hours completed over two semesters. COUN 7002/7007 is to be completed the semester immediately prior to beginning the internship. Students are to apply for their field placement for the fall or summer semesters no later than the fourth week of the spring semester. (Application forms are in the central office and should be turned in to the internship coordinator.) If a student would like to begin his or her field placement in the spring semester, the student should apply no later than the fourth week of the fall semester. Students who fail to turn in their field placement application form by the deadline will not be allowed to complete their field placement during the specified semester. For further information refer to the appropriate *Fieldwork Handbook.*

Not all courses are offered every semester. It is the student's responsibility to carefully plan his or her program of study in order to meet all prerequisite course and graduation requirements.

Student Affairs Leadership and Practice		**48 s.h.**
Counseling Perspective		18 s.h.
COUN 6900	Counseling Methods and Practice	3 s.h.
COUN 6962	Counseling Theory	3 s.h.
COUN 6968	Research in Counseling	3 s.h.
COUN 6972	Career Counseling	3 s.h.
COUN 6973	Group Counseling Theory and Practice	2 s.h.
COUN 6973L	Group Counseling Lab	1 s.h.
COUN 6976	Social and Cultural Issues in Counseling	3 s.h.
Student Affairs Perspective		12 s.h.
COUN 7021	Legal and Ethical Issues in Higher Education	3 s.h.
COUN 7023	Characteristics and Development of College Students	3 s.h.
COUN 7026*	Foundations and Functions of Student Affairs	3 s.h.
COUN 7029	Professional Issues in Student Affairs	3 s.h.

* Must be taken within the first three semesters of enrollment.

Leadership Perspective		9 s.h.
COUN 7042	Administration and Organization in Higher Education	3 s.h.
COUN 7044	Leadership in Student Affairs	3 s.h.
COUN 7046	Assessment in Student Affairs Practice	3 s.h.
Experiential Perspective		6 s.h.
COUN 7005	Internship in College Student Personnel Work	3–6 s.h.

Comprehensive examination prerequisites: COUN 5821G or PSYC 6905, COUNS 5898, 6900, 6962, 6964, 6969, 6972, 6973, 6973L, 6976, 6980.

Electives
To be approved by the student's advisor.

- Students must take COUN 7023 and 7026 within the first three semesters of their enrollment.
- The preferred sequence for taking counseling courses is COUN 6962, 6900, 6973.
- Internship is the student's capstone experience and should be taken during the last semester (or two, if splitting into two semesters). Internship placement involves completion of a minimum of 600 clock hours. Application and signed Training Agreement must be submitted the first week of the semester prior to beginning the internship. For further information on the internship experience, please refer to the *Higher Education Student Affairs Leadership and Practice Internship Handbook.*
- Comprehensive examinations are taken during the last semester the student is enrolled in the internship. For further information on student affairs leadership and practice comprehensive exams, please refer to the student affairs leadership and practice comprehensive exams guidelines.
- Not all student affairs courses are offered every semester. Students are responsible for carefully planning their programs of study in order to meet all prerequisite course and graduate requirements.

Master of Science in Education—Educational Administration

Department Chair

Gunapala Edirisooriya
4103 Beeghly Hall
(330) 941-1437
gedirisooriya@ysu.edu

Program Coordinator

Richard C. Baringer
4110 Beeghly Hall
(330) 941-1575
rcbaringer@ysu.edu

Program Description

The Department of Educational Foundations, Research, Technology, and Leadership prepares reflective administrative practitioners who are capable of providing effective management and instructional leadership in public and nonpublic school settings (also see the Doctor of Education in educational leadership section of this catalog). Post-master's programs are also provided, which lead to Ohio administrative licensure as elementary principal for ages three through 12; middle school principal for ages eight through 14; secondary principal for ten through 21; administrative specialist in curriculum, instruction, and professional development; administrative specialist in pupil services administration; and superintendent. In addition, the department offers programs for Pennsylvania administrative certification as principal for grades K–12 and the letter of eligibility for superintendent. A variety of professional training and service activities are also available.

Faculty Research Interests

Robert J. Beebe, Ed.D., Professor
Administrative theory; human resources administration; leadership development

Gunapala Edirisooriya, Ph.D., Professor and Chair
Information systems; research design; statistics

Donna McNierney, Ed.D., Professor
Web page design; instructional technology; instructional design

Charles Vergon, J.D., Professor
Education law; policy development; educational change

Admission Requirements

In addition to the minimum School of Graduate Studies and Research admission requirements, the Department of Educational Foundations, Research, Technology, and Leadership requires that master's applicants have the following:

- Qualification for a teaching certificate or license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement. Students without a teaching certificate or license may be admitted on an individual basis to graduate programs leading to certification or licensure in certain areas that are graduate level only.
- A satisfactory score on the aptitude portion of the Graduate Record Examination or on the

Miller Analogies Test if the student's unrecalculated undergraduate grade point average is below 2.7
- Three professional recommendations
- Professional résumé
- Personal interview upon departmental request

Degree Requirements

A minimum of 33 semester hours is required for the degree. In addition to the following educational administration and foundations courses, students must successfully complete a comprehensive examination covering the selected educational administration courses listed under Special Notes.

Master's Degree **33 s.h.**

Introduction to School Leadership and Educational Organizations 15 s.h.

This program module introduces students to the realities of school leadership, providing them a broader vision and deeper understanding of educational policy and organizations and the role of leadership in promoting effective instruction. It begins to transform their perspectives from that of a classroom teacher to one of an administrator with broader perspectives and responsibilities.

EDAD 6915	Learning, Teaching, and Instructional Leadership		3 s.h.
EDAD 6931	Leadership in Educational Organizations		3 s.h.
EDAD 6933	Educational Policy, Politics, and Change		3 s.h.
FOUN 6901	Philosophical Analysis of Education	*or*	
FOUN 6902	Sociological Bases of Education	*or*	3 s.h.
FOUN 6905	Educational Challenges in Historical Perspective		3 s.h.
FOUN 6904	Introduction to Educational Research		3 s.h.

Leadership and Management Issues at the School Site 18 s.h.

This program module continues the development of leadership knowledge and skills specific to building level operations, focusing on the role of the principal in relation to staff and the community, and how legal and fiscal considerations shape and influence administrative decision making and the exercise of leadership.

EDAD 6947	School Building Leadership: Models and Processes	3 s.h.
EDAD 6949	Legal and Ethical Issues in Public Administration	3 s.h.
EDAD 6952	School Finance, Resource Planning, and Management	3 s.h.
EDAD 6954	Marketing and Community Relations	3 s.h.
EDAD 6955	Professional Development and Human Resources	3 s.h.
EDAD 6975	Introduction to Administration Clinical Experience	3 s.h.

Special Notes

Before granting the degree, candidates must successfully complete a comprehensive examination covering the following 15 semester hours of educational administration courses: EDAD 6931, 6949, 6952, 6954, and 6955.

This program provides no license in administrative areas. Upon completion of the basic M.S.in Education in educational administration degree or the equivalent thereof as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership, enrollment in specific licensure and certification fields* may be permitted.

All transfer students, including those seeking a master's degree and those who hold a master's degree, will be evaluated using the criteria listed previously. Students who have been evaluated

* Completion of the minimum number of semester hours indicated for each program and of any other Ohio State Department of Education requirements must be achieved before recommendation for any license. Those seeking initial administrative licensure in the State of Ohio must score at least 610 on the National Teachers Examination Specialty Area Test in Educational Leadership: Administration and Supervision. Those seeking initial administrative licensure in Pennsylvania must score at least 159 on the School Leaders Licensure Assessment.

through direct contact with the Ohio State Department of Education should be aware that they must meet the criteria established by the Department of Educational Foundations, Research, Technology, and Leadership at YSU before the M.S. in Ed. in educational administration will be granted.

Post-master's Licensure Requirements

Candidates for any administrative license must have completed the 33 semester hours for the M.S. in Education degree in educational administration as required by YSU or its equivalent as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership.

Principal License

This program module emphasizes the leader's role in promoting collaboration and continuous school improvement across several major components of the school program from curriculum and instruction to student support services and the role technology can play in program assessment, development, implementation, and evaluation.

Elementary Principal License Ages 3–12		**14 s.h.**
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3 s.h.
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	2 s.h.
EDAD 7022E	Clinical Experience: Elementary Principalship	3 s.h.
EMCE 6921	Issues, Problems, Developments, and Curriculum in Elementary Education	3 s.h.
SPED 7077	Leadership in Gifted and Disabilities Education	3 s.h.

Middle School Principal License Ages 8–14		**14 s.h.**
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3 s.h.
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	2 s.h.
EDAD 7022M	Clinical Experience: The Middle School Principalship	3 s.h.
TEMC 6941	Pedagogy Appropriate for Early Adolescent Learners	3 s.h.
SPED 7077	Leadership in Gifted and Disabilities Education	3 s.h.

Secondary Principal License Ages 10–21		**14 s.h.**
EDAD 7014	Systematic Use of Information for Continuous School Improvement	3 s.h.
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	2 s.h.
EDAD 7022S	Clinical Experience: Secondary Principalship	3 s.h.
SED 6931	The Secondary School Curriculum	3 s.h.
SPED 7077	Leadership in Gifted and Disabilities Education	3 s.h.

Admnistrative Specialist License

Administrative Specialist License in Curriculum, Instruction, and Professional Development

Master's degree in curriculum at YSU, plus coursework as follows:

One of		
FOUN 6901	Philosophical Analysis of Education	*or*
FOUN 6902	Sociological Bases of Education	*or*
FOUN 6905	Educational Challenges in Historical Perspective	3 s.h.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3 s.h.
EDAD 6931	Leadership in Educational Organizations	3 s.h.
EDAD 6933	Educational Policy, Politics, and Change	3 s.h.
EDAD 6947	School Building Leadership: Models and Processes	3 s.h.
EDAD 6949	Legal and Ethical Issues in Public Administration	3 s.h.
EDAD 6952	School Finance, Resource Planning, and Management	3 s.h.
EDAD 6954	Marketing and Community Relations	3 s.h.
EDAD 6955	Professional Development and Human Resources	3 s.h.
EDAD 6975	Introduction to Administration Clinical Experience	3 s.h.
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	2 s.h.
FOUN 6904	Introduction to Educational Research	3 s.h.
SED 7020	Field Experience in Supervision	2 s.h.

or

Master's degree in educational administration, plus coursework as follows:

EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	2 s.h.
EDAD 7040	Clinical Practice for the Administrative Specialist	2 s.h.
SED 7036	Fundamentals of Curriculum Development	3 s.h.
TCED 6922	Principles of Instruction	3 s.h.
TCED 6934	Assessment in Education	3 s.h.
TCED 6946	Supervision of Instruction	3 s.h.

Administrative Specialist License in Pupil Services Administration

Master's degree in special education at YSU, plus coursework as follows:

One of		
FOUN 6901	Philosophical Analysis of Education	3 s.h.
FOUN 6902	Sociological Bases of Education	3 s.h.
FOUN 6905	Educational Challenges in Historical Perspective	3 s.h.
EDAD 6915	Learning, Teaching, and Instructional Leadership	3 s.h.
EDAD 6931	Leadership in Educational Organizations	3 s.h.
EDAD 6933	Educational Policy, Politics, and Change	3 s.h.
EDAD 6947	School Building Leadership: Models and Processes	3 s.h.
EDAD 6949	Legal and Ethical Issues in Public Administration	3 s.h.
EDAD 6952	School Finance, Resource Planning, and Management	3 s.h.
EDAD 6954	Marketing and Community Relations	3 s.h.
EDAD 6955	Professional Development and Human Resources	3 s.h.
EDAD 6975	Introduction to Administration Clinical Experience	3 s.h.
EDAD 7018	School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies	2 s.h.
EDAD 7040	Clinical Practice for the Administrative Specialist	3 s.h.
FOUN 6904	Introduction to Educational Research	3 s.h.

or

Master's degree in educational administration, plus coursework as follows:

EDAD 7040	Clinical Practice for the Administrative Specialist	2 s.h.
SPED 5858	Intervention Concepts and Strategies in Early Childhood Special Education	2 s.h.
SPED 5871	Characteristics and Needs of Gifted Children	3 s.h.
SPED 6981	Seminar: Current Issues in Special Education	3 s.h.
SPED 6982	Educational Assessment in Gifted and Special Education	3 s.h.
SPED 6984	Major Concepts and Program Design for Students in Special Education	3 s.h.
SPED 6986	Severe Behavior Disabilities	3 s.h.
SPED 7077	Leadership in Gifted and Disabilities Education	3 s.h.

Superintendent License 15 s.h.

Candidates must hold an administrative certificate or license issued upon the recommendation of YSU or the equivalent thereof as evaluated by the Department of Educational Foundations, Research, Technology, and Leadership at YSU, complete the following course sequence, and meet any other Ohio State Department of Education requirements.

This model shifts the leadership focus from the micro (school site) to the macro (school systems) level and familiarizes prospective superintendents with systems knowledge and perspective on leadership in areas from educational governance to human resource administration to technology and facilities.

EDAD 7024	Collective Bargaining and System Issues in Human Resources Administration	3 s.h.
EDAD 7025	Educational Governance: Advanced Law and Policy Seminar	3 s.h.
EDAD 7026	Technology and Facilities Issues for Learning Organizations	3 s.h.
EDAD 7035	The Superintendency and Evolving Ways of Looking at Leadership	3 s.h.
EDAD 7050	Clinical Experience: Superintendency	3 s.h.

Master of Science in Education—Teacher Education

Program Director

Dora L. Bailey
2406 Beeghly Hall
(330) 941-3251
dlbailey@ysu.edu

Program Description

The master teacher education program provides advanced professional preparation for teachers, administrators, and school guidance counselors. The Department of Teacher Education houses six specialty program areas for post baccalaureate study toward the M.S. in Education: curriculum and instruction master, early childhood education master, middle childhood master, content area concentration master, adolescent/young adult master and/or licensure, literacy master and/or reading specialist (pre K-12) endorsement, and educational technology master and/or (K-12) endorsement.

The program focuses on the development of professionally committed practitioners so that they can reflect on and apply the current state of knowledge, skills, and competencies necessary for these individuals to function effectively in their chosen field. Central to the development of such professionals is the refinement and conveyance of competencies in the areas of scholarship, instruction, leadership, management, and interpersonal relations. Essential to the development of committed practitioners is the belief that all children can learn regardless of their specific diversities.

The Department of Teacher Education's mission is to empower teachers for professional practice. The mission commits the faculty to a theme of critical reflective practice where candidates are engaged in the pedagogies of critique in comparison and contrast to traditional practices of teaching and schooling. Faculty members are committed to educate candidates in values and ideas that motivate educators for the transformation of students and educational institutions. The Department also offers a variety of professional development courses and workshops.

Admission Requirements

To be admitted to the Master of Science in Education degree program in the Department of Teacher Education, the applicant must have earned a bachelor's degree from an accredited college or university.

Regular Admission

In addition, the applicant must meet the following criteria:

- qualification for a teaching certificate/license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement. However, those individuals who have earned baccalaureate degrees but do not possess certificates/licenses will be admitted on a case-by-case basis after review of their credentials and needs relative to specific career paths requiring expertise in curriculum and instruction in nonschool settings.
- an unrecalculated undergraduate cumulative grade point average of at least 2.7 (on a 4.0 scale) or an unrecalculated graduate cumulative grade point average of 3.0.
- adequate preparation for the graduate program in which the student wishes to enroll, as evidenced by three professional recommendations.

Provisional Admission

For provisional admission, the applicant must meet the following criteria:

- qualification for a teaching certificate/license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement.
- an unrecalculated undergraduate grade point average of at least 2.7, or a graduate grade point average of less than 3.0, then an MAT raw score of 39 (1992 norms) or an MAT scaled score of 394 (2003 norms) is required.
- adequate preparation for the graduate program in which the student wishes to enroll, as evidenced by three professional recommendations.

Once admitted provisionally, and after nine semester hours of graduate level work have been completed, the department automatically reviews the student's record. If a GPA of at least 3.0 has been maintained, the student is converted from provisional to regular status. A provisional student whose GPA falls below a 3.0 will immediately be dismissed.

Nondegree Admission

For nondegree admission, the applicant must meet the following criteria:

- qualification for a teaching certificate/license (Ohio provisional or equivalent) if enrolled in a program leading to additional certification, licensure, validation, or endorsement.
- a written statement verifying that he or she has a degree and an undergraduate grade point average of 2.5. An official transcript must be provided by the end of the semester in which the student is first enrolled for verification.
- an undergraduate grade point average of less than 2.5 or a graduate grade point average of less than 3.0, then an MAT raw score of 39 (1992 norms) or an MAT scaled score of 394 (2003 norms) is required.
- If the undergraduate grade point average is below 2.5 and the MAT score is below the cutoff score, admission is refused. If the graduate grade point average is below 3.0 and the MAT score is below the cutoff score, admission is refused.
- Workshop courses:
    - ◊ Anyone can sign up for credit-bearing workshops; however, in order to move those credits into a graduate program, the above applies
    - ◊ In order to move workshop credit into a graduate program, approval must be given in advance of the workshop
    - ◊ Only two YSU workshops totalling 6 hours may count in graduate programs

Nondegree status students may be blocked from enrollment in selected courses.

Nondegree students who later wish to earn a degree must make formal application for admission to the degree program and meet all requirements of the regular admission process. Nondegree status performance may inform, but in no way assures, admission into the degree program.

Once admitted as a nondegree student, a maximum of nine semester hours of regular course graduate-level work may be applied toward a degree. A GPA of 3.0 must be maintained in order to convert from nondegree to regular status. Any student in nondegree status whose cumulative grade point average drops below the minimum (3.0) will be prohibited from enrolling in further graduate coursework.

Faculty Research Interests

Dora L. Bailey, Ph.D., Professor
Literacy; content area reading; mentoring; cooperative learning; classroom management; continual assessment; professional development; National Board for Professional Teaching Standards (NBPTS)

Lauren Cummins, Ed.D., Associate Professor
National Association for the Education of Young Children (NAEYC) standards; literacy development; mentorship; developmentally appropriate practice; learning communities; profes-

sional dispositions

Joyce A. Feist-Willis, Ph.D., Associate Professor
Literacy Specialist Endorsement standards; assessment-based literacy instruction; professional development; coaching; early literacy development; reading fluency; content area reading.

Betty Greene, M.Ed., Instructor
Preservice student teaching placement and effects on candidates' sense of efficacy

Randy L. Hoover, Ph.D., Professor
No Child Left Behind (NCLB); education accountability; proficiency testing; authentic assessment; achievement gaps; democratic schooling; spirituality; ethics

Hong Yong (Hy) Kim, Ed.D., Professor
National Council of Teachers of Mathematics (NCTM) standards; cooperative learning; hands-on math teaching

Howard Pullman, Ph.D., Professor
Teaching methods in middle school mathematics; use of technology in mathematics teaching and learning; assessment and National Council for Accreditation of Teacher Education (NCATE) Standards.

Regina Rees, Ph.D., Assistant Professor
Literacy; storytelling; children's and adolescent literature; content area reading

Gail Saunders-Smith, Ph.D., Assistant Professor
The development of emergent writing; the role of text structures on comprehension; the impact of teacher-student discourse on student learning

Michael Theall, Ph.D., Associate Professor
Faculty evaluation; student ratings of teaching; faculty development; college teaching and learning; individual differences and student learning; motivational issues (attribution theory and locus of control)

Degree Requirements

A minimum of 33 semester hours is required for the degree. In general, the master teacher education program requires a common core of courses, common core option courses, and specialty program area requirements. Additionally, students must pass a comprehensive examination, except for Adolescent/Young Adult Licensure and Educational Technology Masters.

Required Courses for Teacher Education Programs		**15 s.h.***
Core Requirements		**9 s.h.**
TCED 6936	Fundamentals of Curriculum Development	3 s.h.
FOUN 6904	Introduction to Educational Research	3 s.h.
PSYC 6903	Psychology of Learning and Education	3 s.h.
Core Options		**6 s.h.****
Choose One:		
EDTC 6905	Technology in Instructional Settings *or*	

* Literacy Masters candidates will only have 12 s.h. in Required Courses.
** Literacy Masters candidates will only have 3 s.h. in Core Options.

TCED 6951	Interpersonal Communications for Educators *or*	
TCED 6959	Law and Ethics for the Classroom Teacher *or*	
TCED 6999	Proactive Grant Seeking *or*	
TERG 6917*	Literacy and Language Arts Programs	3 s.h.

Choose One**:

FOUN 6901	Philosophical Analysis of Education *or*	
FOUN 6902	Sociological Bases of Education	3 s.h.

Specialty Program Area **18 s.h.*****

Total Hours Required for Degree **33 s.h.**

Curriculum and Instruction Program

The Curriculum and Instruction program is designed to accommodate the generalist perspective that some school districts need.

Required Courses and Core Option Courses **15 s.h.**

Specialty Program Area Courses, Curriculum and Instruction **18 s.h.**

TCED 6922 Principles of Instruction 3 s.h.

Five courses from the College of Education approved by the student's advisor, including pre-approved workshop credit. Generally, it is advised that one course in Counseling and one course in Special Education is taken, as well as three courses from the Department of Teacher Education.

Total Hours Required for Degree **33 s.h.**

A comprehensive examination covering FOUN 6901 or 6902, FOUN 6904, TCED 6922, and TCED 6936 is required to graduate with the master's degree. Please see the Department of Teacher Education for application forms, times, and dates.

Early Childhood Education Program

The Early Childhood Education program specialty area provides in-depth advanced study for experienced early childhood education teachers in the areas of research-based curriculum planning and assessment linked to the development and learning of young children. Candidates in this program will have already successfully demonstrated competence in relation to NAEYC's Initial Licensure Standards (NAEYC 2003, Preparing Early Childhood Professional: NAEYC Standards for Programs, p. 79). Therefore, candidates in this program will be licensed early childhood education teachers who will use their knowledge, skills, and related dispositions in greater depth, complexity, and applicability to the professional context.

Required Courses and Core Option Courses **15 s.h.**

Specialty Program Area Courses, Early Childhood Education **18 s.h.**

ECE 6910	Curriculum, Theories, and Methods in Early Childhood Education, Pre-K-Grade 3	3 s.h.
ECE 6911	Early Childhood Pedagogy in Math and Science	3 s.h.
ECE 6920	Current Social Issues in Early Childhood Education	3 s.h.
ECE 6921	Action Research in Early Childhood Education, Pre-K-Grade 3	3 s.h.

* TERG 6917 is the designated Core Option course for Literacy Masters candidates; however, students in other specialty program areas may also enroll.

** Literacy Masters candidates do not choose a course from this category.

*** Literacy Masters candidates will have 21 s.h. in their specialty program area.

TERG 6923	Literacy and Phonics Instruction: Early Years	3 s.h.
SPED 5858	Intervention Concepts and Strategies in Early Childhood Special Education	2 s.h.

Total Hours Required for Degree **33 s.h.**

All master teacher candidates in early childhood education must complete a comprehensive exam in their major. Please see the Department of Teacher Education for application forms, times, and dates. Candidates must also acquire a TaskStream account at the beginning of their studies.

Content Area Concentration Program

Required Courses and Core Option Courses **15 s.h.**

Specialty Program Area Courses, Subject Area Courses **18 s.h.**

TCED 6922	Principles of Instruction	3 s.h.

Electives in Teaching Area or Thesis: Students must elect 15 s.h. of coursework in collaboration with their content advisors to complete the teaching area requirement. In some cases, workshop and process hours will be approved for degree credit within this section.

Optional

SED 6999	Thesis—Thesis hours may apply to the 33 s.h. required for Specialty Program Area courses.	2-6 s.h.

Total Hours Required for Degree **33 s.h.**

Note: HPES Principles of Instruction course may be substituted for TCED 6922.

A comprehensive examination covering FOUN 6901 or 6902, FOUN 6904, TCED 6922, and TCED 6936 is required to graduate with the master's degree. Please see the Department of Teacher Education for times and dates. Those selecting the thesis option are not required to take the comprehensive examination.

Adolescent/Young Adult Master and/or Licensure Program

The Adolescent/Young Adult Master and/or Licensure specialty area program is designed to meet the needs of individuals seeking adolescent/young adult social studies, science, math, or language arts licensure.

Admission Requirements

In addition to the Department of Teacher Education admission requirements, the Adolescent Licensure option has the following additional requirements:

- an earned baccalaureate or advanced degree in the field of licensure being sought or in a closely related field;
- a minimum of 15 semester hours of subject-area coursework directly within the licensure area. However, deficiencies in content requirements for licensure must be fulfilled. It is preferable to take these courses as an undergraduate before admission to graduate status;
- a grade point average of no less than 2.67 (on a 4.0 scale) in the 15 semester hours or more of subject area coursework;
- a passing score on a Praxis II Content Area test(s) in the area(s) of licensure sought.

Required Courses **9 s.h.**

Specialty Program Area Courses, Adolescent/Young Adult Licensure

SED 6960	Special Methods for Student's Licensure Area (includes field experience)	
6960C	Science *or*	
6960E	English *or*	
6960M	Math *or*	
6960S	Social Studies	3 s.h.
SPED 5802	Education of Exceptional Children *or*	
SPED 7077	Leadership in Gifted and Disabilities Education*	3 s.h.
TERG 6924	Reading and Language Learning in the Middle and Adolescent Years*	3 s.h.
TCED 6959	Law and Ethics for the Classroom Teacher*	3 s.h.
EDTC 6905	Technology in Instructional Settings*	3 s.h.
TCED 6922	Principles of Instruction*	3 s.h.
PSYC 6905	Human Growth and Development*	3 s.h.
FOUN 6901	Philosophical Analysis of Education *or*	
FOUN 6902	Sociological Bases of Education	3 s.h.

Program Options

Candidates seeking subject area licenses are required to take the following credit-hour requirements beyond receiving this master's degree:

SED 6965	Supervised Student Teaching: High School	5 s.h.
SED 6965A	Student Teaching Seminar: High School	1 s.h.

Passage of Praxis II PLT, Grades 7-12 (Test #0524) with a score of no less than 165 is required before registering for Student Teaching.

Total Hours Required for Degree **33-39 s.h.**

A comprehensive examination covering FOUN 6901 or 6902, FOUN 6904, TCED 6922, and TCED 6936 is required to graduate with the master's degree. Please see the Department of Teacher Education for application forms, times, and dates.

Literacy Master and/or Reading (Pre-K-12) Endorsement Program

The Literary Master and/or Reading (Pre-K-12) Endorsement program specialty area prepares candidates to develop advanced cognitive and leadership skills appropriate for lead teacher, curriculum coordinator, and mentor in literacy. Literacy professionals with an endorsement and/or master's degree in literacy are responsible for meeting literacy needs of all students. The standards and criteria for judging candidates are established by the International Reading Association (IRA) and mandated by the Ohio Department of Education.

Required Courses and Core Option Courses **12 s.h.**

Specialty Program Area Courses, Reading Specialist **21 s.h.**

TERG 6922	Organizing and Managing Diverse Literacy Environments	3 s.h.
TERG 6923	Literacy and Phonics Instruction: Early Years**	3 s.h.
TERG 6924	Reading and Language Learning in Middle and Adolescent*	3 s.h.
TERG 6926	Reading and Language Arts Assessment I*	3 s.h.
TERG 6927	Practicum: Coaching for Effective Literacy Instruction	3 s.h.
TERG 6928	Practicum: Case Study in Reading and Language Arts*	3 s.h.
TERG 6929	The Reading and Language Arts Professional*	3 s.h.

* Required for Licensure by the State of Ohio
** Courses required for Endorsement

Total Hours Required for Degree **33 s.h.**

All master teacher reading candidates must pass a comprehensive examination in the area of specialization. The comprehensive examination follows completion of required courses for the specialization. Please see the Department of Teacher Education for applications, times, and dates. Candidates must also acquire a TaskStream account at the beginning of their studies.

"An endorsement of a teacher license, valid for teaching the subject or learners named, shall be issued to an individual who holds a baccalaureate degree; who is deemed to be of good moral character; who has successfully completed an approved program of preparation; who has successfully completed an examination prescribed by the State Board of Education; and who has been recommended by the dean or head of teacher education at an approved institution. The endorsement may be added to any standard teaching certificate, or provisional or professional teaching license." (From ODE, 2004, *Teacher Education Licensure Standards*)

Passage of Praxis II *0200 Introduction to the Teaching of Reading* is required by ODE for endorsement. A score of 540 is passing.

Educational Technology

The Educational Technology specialty program area recognizes that: (1) the educational use of computers needs to become an integral part of the total process of teaching and learning, rather than operating in isolation; (2) educators need professional preparation in educational computing and technology to teach computer/technology applications and integrate technology to support teaching and learning; and (3) all students graduating from the P-12 schools required computing/technology instruction to gain equal access to information.

Admission Requirements

In addition to the Department of Teacher Education admission requirements, the Educational Technology option has the following additional requirements:

- competency in the National Educational Technology Standards for Teachers (NTEST), which is required by the International Society for Technology in Education (ISTE). Contact the Department of Teacher Education for information on how to demonstrate competency.
- a valid teaching certificate/license if seeking the technology endorsement. Note: a teaching certificate/license is not a requirement for seeking the degree.

Required Courses and Core Option Courses		**15 s.h.**
Specialty Program Area Courses, Educational Technology		**18 s.h.**
[Prereq.: EDTC 3771 or EDTC 6905 or permission of instructor]		
EDTC 6920	Instructional Design	3 s.h.
EDTC 6930	Instructional Multimedia Authoring	3 s.h.
EDTC 6940	Distance Education and On-line Information Dissemination	3 s.h.
EDTC 6950	Principles, Processes, and Supervision of Networking	3 s.h.
EDTC 6960	Educational Technology and Professional Development	3 s.h.
EDTC 6965	Technology Planning for Instructional Environments	3 s.h.
Total Hours Required for Degree		**33 s.h.**
Technology Endorsement Courses		
EDTC 6945	Action Research in Educational Technology*	3 s.h.

* Courses required for Endorsement

EDTC 6985	Portfolio in Educational Technology*	1 s.h.
EDTC 6990	Practicum in Educational Technology*	2 s.h.

Total Hours Required for Endorsement **24 s.h.**
Total Hours Required for Degree and Endorsement **39 s.h.**

Note: EDTC 6905 Technology Planning for Instructional Environments serves as a possible prerequisite to entrance into this program. It cannot serve to fulfill the Department's Core Options for candidates in the Educational Technology program.

Technology Endorsement

For individuals working toward the degree and endorsement, application for the technology endorsement may be made once the required courses under the Educational Technology courses and Technology Endorsement courses sections have been successfully completed, even though not all of the degree requirements have been met. Candidates seeking the technology endorsement, but not wanting the degree, need to complete only the 24 semester hours specified under the Educational Technology courses and Technology Endorsement courses sections; full admission to the program is also required.

This endorsement component serves school personnel who hold a teaching certificate/license; the endorsement is applicable for grades K-12. Courses included in the endorsement components meet the standards established by the International Society for Technology in Education (ISTE) Standards for Technology Facilitation.

Special Education Program

Program Director

Margaret Briley
3305 Beeghly Hall
(330) 941-3257
mlbriley@ysu.edu

Program Description

The master's degree program in special education provides advanced cognitive and educational skills for those who are presently working or expect to work as clinical/developmental personnel serving individuals with exceptionalities or as supervisors of special education programs.

Faculty Research Interests

Margaret L. Briley, Ed.D., Assistant Professor and Chair
Assessment and education accountability; animal-assisted therapy; critical issues in child maltreatment; methodology/models for teaching persons with exceptionalities; teacher attrition

Marianne K. Dove, Ph.D., Associate Professor
Assessment and education accountability; animal-assisted therapy; critical issues in child maltreatment; methodology/models for teaching persons with exceptionalities; teacher attrition

Sylvia Imler, Ph.D., Assistant Professor
Teachers' use of culturally responsive teaching; disposition toward individuals with disabilities; the use animals and effects on learning

Sally Lewis, Ph.D., Assistant Professor
Relationships between culturally responsive teaching and the identification of diverse popula-

tions for inclusion and gifted programs; the effectiveness of professional models of the preparation of teacher candidates; the use of performance assessment as a measure of program effectiveness

Admission Requirements

See the Admission Requirements sections of the teacher education programs.

Licensure Requirements

For all candidates seeking a new area of licensure, 12 semester hours in reading, which includes a course in phonics and passage of the appropriate Praxis exam, are required by the Ohio Department of Education.

Degree Requirements

General Option

A total of 36 semester hours of coursework is required for the Master of Science in Education degree in special education. Candidates will be expected to pass a comprehensive examination on the special education core curriculum. Consult faculty advisor for details.

Foundations of Education		3 s.h. minimum
A minimum of three semester hours, including the following:		
FOUN 6904	Introduction to Educational Research	3 s.h.
	One additional graduate course in foundations of education, if approved by advisor	3 s.h.
Core Courses in Special Education		21 s.h.
SPED 5858	Intervention Concepts and Strategies in Early Childhood Special Education	*or* 2 s.h.
SPED 5865	Workshop in Special Education.	1-4 s.h.
SPED 5871	Characteristics and Needs of Gifted Children	3 s.h.
SPED 6965	Special Topics in Disabilities Education	1-4 s.h.
SPED 6981	Seminar in Special Education	3 s.h.
SPED 6982	Educational Assessment in Special Education and Gifted Education	3 s.h.
SPED 6984	Major Concepts and Program Design for Students in Special Education	4 s.h.
SPED 6986	Severe Behavioral Disabilities	3 s.h.
SPED 7077	Leadership in Special Education and Gifted Education	3 s.h.
Cognate Areas		9 s.h.
Selected by student and advisor.		
Electives		3 s.h. minimum as approved by advisor

Electives may constitute an extension of the first or the selection of a second cognate area.

Gifted and Talented Education Specialist Option

The gifted and talented education specialist option prepares students to teach gifted and talented children as well as to develop advanced cognitive and leadership skills appropriate to the specialization area. Candidates must meet the general education requirements for graduate programs in the College of Education. Those completing the program will be eligible for an Ohio licensure in gifted education.

Successful completion of a comprehensive examination in the area of specialization is required

before graduation.

Core Curriculum		21 s.h.
COUN 5879	Consultation with Gifted/Talented Students and Their Families	3 s.h.
SPED 5802	Education of Exceptional Children and Youth	3 s.h.
SPED 5871	Characteristics and Needs of Gifted Children	3 s.h.
SPED 5878	Teaching Gifted/Talented Students	4 s.h.
SPED 6982	Educational Assessment in Gifted and Special Education	3 s.h.
SPED 7040	Field Experience in Gifted and Talented Education	2 s.h.
SPED 7077	Leadership in Gifted and Disabilities Education	3 s.h.
Foundations		6 s.h.
FOUN 6901	Philosophical Analysis of Education	3 s.h.
FOUN 6902	Sociological Bases of Education	3 s.h.
FOUN 6904*	Introduction to Educational Research	3 s.h.
FOUN 6905	Educational Challenges in Historical Perspective	3 s.h.
Cognate Area		9 s.h. minimum

Coursework may be selected with advisor's approval. Please note that a cognate area is not intended to qualify a person for licensure. In some instances, however, students may be able to expand work in a cognate area to meet the requirements for licensure (or validation of an existing licensure) in that area.

Electives	3 s.h. with advisor's approval
Total Hours Required for Degree	36 s.h.

Early Childhood Special Education (ECSE) Option

The ECSE option prepares students to teach young children with special needs (disabilities and gifted) as well as to develop cognitive and leadership skills appropriate to the specialization area. In addition to the general admission requirements for graduate programs in the College of Education, candidates must complete special admission requirements as follows:

- A standard pre-kindergarten teaching certificate, an elementary education certificate with pre K validation, or a home economics certificate with pre-K validation, plus PSYCH 3755 Child Development and SPED 5802 (or SPED 2631 Intervention Strategies with Special Needs Children in Early Childhood); or an early childhood license
- A special teaching certificate for education of the handicapped, plus PSYCH 3755 Child Development and an advisor-approved course in the early childhood education curriculum; or an intervention specialist license

Students with minor deficiencies may be admitted as provisional graduate students and should request a transfer to regular status as soon as the deficiencies are met.

The ECSE option requires 36 semester hours of specified graduate study. At the time of entry into the program, students are required to demonstrate/supply evidence of experience with typically developing preschool children. When the student does not have such experience, an additional six semester hours of field experience will be required. All field hours are in addition to the required coursework, including core, foundations, cognate, and elective hours. Those completing the program will be eligible for Ohio licensure as an early intervention specialist. Successful completion of a comprehensive examination in the area of specialization is required before graduation.

Core Curriculum		18 s.h.
SPED 5858	Intervention Concepts and Strategies in Early Childhood Special Education	2 s.h.

* Required course.

SPED 5864	Service Coordination, Collaboration, and Consultation Skills for the Intervention Specialist	3 s.h.
SPED 6991	Referral and Assessment in Early Childhood Special Education	3 s.h.
SPED 6992	Teaching Methods in Early Childhood Special Education	3 s.h.
SPED 6993	Health and Related Issues in Early Childhood	2 s.h.
SPED 6994	Field Experiences in Early Childhood Special Education	4–8 s.h.
Foundations		6 s.h.
FOUN 6901	Philosophical Analysis of Education	3 s.h.
FOUN 6902	Sociological Bases of Education	3 s.h.
FOUN 6904	Introduction to Educational Research (required)	3 s.h.
FOUN 6905	Educational Challenges in Historical Perspective	3 s.h.
PSYC 6903	Psychology of Learning and Education	3 s.h.
PYSC 6906	Advanced Child Development	3 s.h.
Cognate Areas		9 s.h. minimum

Coursework may be selected with advisor's approval. Please note that a cognate area is not intended to qualify a person for licensure. In some instances, however, students may be able to expand the work in a cognate area to meet the requirements for licensure (or validation of an existing licensure) in that area.

Electives	3 s.h. selected with advisor's approval
Total Hours Required for Degree	36 s.h.

Autism and Related Disabilities Option

The moderate/intense autism and related disabilities option prepares candidates to teach students with autism and related disabilities as well as to develop advanced systematic instruction in life skills areas of learning and leadership skills appropriate to the area of specialization. Teachers who are currently licensed in special education, mild/moderate, or general education will receive Ohio licensure in the area of moderate/intense intervention specialist with the completion of core and additional option requirements (32 semester hours), as well as successfully passing a comprehensive examination.

During a summer internship, students seeking a master's degree are required to demonstrate appropriate databased assessment, teaching and learning standards of knowledge, skills, and dispositions as specified by the National Council for Accreditation of Teacher Education and the Council for Exceptional Children.

Core Requirements		13 s.h.
FOUN 6904	Introduction to Educational Research	3 s.h.
SPED 6984	Major Concepts and Program Design for Students in Special Education	4 s.h.
SPED 7077	Leadership in Special Education and Gifted Education	3 s.h.
Autism and Related Disabilities Option		19 s.h.
PSYC 6960	Fundamentals of Applied Behavior Analysis	*or*
PSYC 6990	Seminar in Psychology: Topics in Asperger's Syndrome	3 s.h.
SPED 5810	Introduction to Sign Language	3 s.h.
SPED 6996	Teaching Strategies/Autism	4 s.h.
SPED 6998	AAC Strategies	3 s.h.
SPED 6999	Field Experiences Autism/Related Disorders	3-6 s.h.
Total Hours Required for Degree		32 s.h.

Intervention Specialist Licensure Option (Pending Approval from Ohio Department of Education)

The intervention specialist licensure option is designed to permit those candidates holding an earned baccalaureate or advanced degree in an area of education and licensure or certification to complete a master's degree and obtain teaching licensure for students (K–12) with disabilities (intervention specialist in mild/moderate disabilities or moderate/intensive disabilities). A total of 32 semester hours is required.

A candidate for the program must meet all the requirements for admission to the School of Graduate Studies and Research as outlined in the YSU *Graduate Bulletin* under teacher education programs admission requirements. Prerequisites include PSYC 3709 or 6903 or the equivalent and SPED 2631, 2630, 5802, or the equivalent.

Candidates must hold an earned baccalaureate or advanced degree in an area of education and licensure or certification such as early childhood, middle childhood, or adolescent/young adults. Students will be required to pass the appropriate Praxis II exams before completion of the practicum or review of student teaching equivalency.

Successful completion of a comprehensive examination is required for graduation. Individuals holding teaching certification must fulfill the Ohio reading requirement (12 semester hours).

Foundations of Education		3 s.h.
FOUN 6904	Introduction Educational Research	3 s.h.
Core Courses		18 s.h.
SPED 6981	Seminar in Special Education	3 s.h.
SPED 6982	Educational Assessment in Gifted and Special Education	3 s.h.
SPED 6983	Characteristics and Needs of Children and Youth with Mild/Moderate and/or Moderate/Intensive Disabilities	3 s.h.
SPED 6984	Major Concepts and Program Design for Students in Special Education	3 s.h.
SPED 6986	Severe Behavior Disorders	3 s.h.
Cognate		11 s.h.
SPED 5835	Classroom Management for Exceptional Children and Youth	4 s.h.
SPED 5853	Diagnosis and Intervention in Mathematics for Special Education	3 s.h.
SPED 5834	Educational Strategies for Children and Youth with Moderate/Intensive Disabilities *or*	
SPED 5868	Mild/Moderate Disabilities Practicum	4 s.h.
Total Hours Required for Degree		32 s.h.

Master of Science in Engineering

The College of Engineering and Technology offers a graduate program leading to the Master of Science degree in engineering. Admission to any of the five engineering options (chemical, civil and environmental, electrical and computer, industrial and systems, and mechanical engineering) is granted to qualified applicants who have been judged to have a good chance of succeeding in the program and obtaining a graduate degree. Several technical concentration areas are available in each option. Students may select a thesis, nonthesis, management, or self-directed curriculum plan. Additionally, early placement plans for the Ph.D. or doctoral degrees in engineering are available. These opportunities serve the practicing engineer as well as the student who wants to pursue advanced graduate study and research. Courses offered on campus are usually offered during the evenings. The educational opportunities within the college include traditional classroom and laboratory courses, seminars, and research projects guided by members of the graduate faculty.

Teaching or research assistantship positions are available to qualified applicants upon review and recommendation by the home department. In addition, the School of Graduate Studies and Research may offer scholarships or grants-in-aid to qualified students. Students desiring assistantships or scholarships must submit an application to the School of Graduate Studies and Research by the specified deadlines.

This description explains admission and degree requirements, advising, and program plans. Information concerning course scheduling and prospective course offerings can be obtained from the School Graduate Studies and Research website or the Engineering Department. Further assistance with any graduate matter may be obtained by telephone, e-mail, letter, or personal visit to the program option coordinator in the student's area of interest.

Admission Requirements

Degree Programs

In addition to the general requirements for admission to the School of Graduate Studies and Research, the applicant must show an unrecalculated grade point average in undergraduate study of at least 2.75 (on a 4.0 scale) in his or her major coursework. Applicants with lesser qualifications may be granted provisional graduate student status based on evaluation of their undergraduate records, scholastic records, and professional qualifications.

Nondegree Admission

An applicant whose academic record does not meet the required standards for admission to a Master of Science degree program may apply for nondegree admission to the School of Graduate Studies and Research. Upon admission to the graduate program under nondegree status, the student will be given an opportunity to demonstrate his or her capability to successfully complete six to nine semester hours with a 3.0 (on a 4.0 scale) or higher. Upon successful completion, the student may apply for admission to a specific engineering degree option to continue his or her study for the Master of Science in Engineering.

Advisement

The College of Engineering and Technology requires an advisor for each individual graduate student. An advisor is recommended by the graduate program director and assigned by the School of Graduate Studies and Research upon acceptance.

Degree Requirements

The Master of Science in Engineering may be characterized as being both career-oriented and self-directed and offers flexibility to accommodate the needs of every engineering graduate student. Graduate students enrolled in any of the engineering graduate programs must complete 30

semester hours for the thesis plan, 33 semester hours for the nonthesis plan, or 36 semester hours for the management emphasis plan as follows.

Core Requirements

Every graduate student is required to complete a minimum number (depending on the plan selected) of the following engineering core courses. The core courses have been selected to provide each student with basic tools needed to function effectively in the professional work area.

ENGR 6920	Project Planning and Management	3 s.h.
ENGR 6921	Engineering Statistics	3 s.h.
ENGR 6922	Engineering Systems Analysis	3 s.h.
ENGR 6923	Information Technology Tools for Engineers	3 s.h.
ENGR 6924	Computer-Based Tools for Engineers	3 s.h.
ENGR 6925	Applied Environmental Management	3 s.h.

Program Plans

Nonthesis Plan

A total of 33 semester hours of coursework is required for this plan. Graduate students who choose this option should select an area of concentration from the list below. Courses for each area are listed in the description of the home department's program option. In addition to 12 semester hours of core courses, every student enrolled in this option is required to complete 15 semester hours of area concentration courses, a three-semester-hour elective course, and a three-semester-hour special project course. The elective course may be selected to enhance the chosen technical concentration or to allow the student to add breadth to his or her background by taking a course in another area. A graduate student enrolled in a special project course will be required to defend the results of his or her project by giving a presentation to the College of Engineering and Technology faculty and students. For further information pertaining to this plan, the graduate student may contact the graduate program option coordinator of his or her home department.

Suggested concentration areas include the following:

- General civil and environmental, or electrical and computer engineering
- General industrial/manufacturing or mechanical engineering
- General chemical engineering
- Solid/structural mechanics
- Environmental engineering/science
- Engineering management
- Energy/power systems/power electronics
- Control systems

Thesis Plan

Graduate students choosing this option are required to complete 30 semester hours of graduate coursework. This generally consists of nine semester hours of core courses, 15 semester hours of technical concentration courses, and six semester hours of thesis. This plan is strongly recommended for candidates who wish to continue their graduate studies beyond the master's degree. Recent baccalaureate degree students are also encouraged to pursue the thesis plan. The thesis provides firsthand experience with experimental design, literature searches, research methodology, and technical report writing and can lead to a higher level of expertise in the chosen area of specialization.

Management Plan

Students who have been in the work arena and are moving into an engineering management role may wish to choose this plan. A total of 36 semester hours of coursework is required for this plan. In addition to 12 semester hours of core courses, a series of engineering and business courses

totaling 21 semester hours is recommended in the description of the home department's graduate program option. Students must also complete a three-semester-hour special project course. For more information pertaining to this plan, contact the graduate program option coordinator of the home department.

Self-Directed Plan

Although a series of technical concentration areas has been suggested, a student may wish to develop his or her own plan of study. A series of courses may be selected to meet a specific professional goal/objective. The student must meet with an advisor to develop a self-directed curriculum plan. A total of 33 semester hours of coursework is required for a nonthesis plan, and a total of 30 semester hours is required for a thesis plan. Students pursuing the nonthesis plan must complete a three-semester-hour special project course. For more information pertaining to this option, refer to the home department's graduate program description or contact the home department graduate program option coordinator.

Early Placement Programs for Doctorate Degrees in Engineering

Early placement programs for the Ph.D. degree in engineering at The University of Akron and the Doctor of Engineering degree in engineering at Cleveland State University are available to qualified students. These opportunities allow students to begin their doctoral study at YSU. Graduate students who are interested in any of these programs must have completed their M.S. degree program with thesis option at Youngstown State University or elsewhere. Students accepted in either program are required to complete a minimum of 60 semester hours beyond the M.S. degree. Additionally, students enrolled in either program must complete up to 12 semester hours of coursework and 12 semester hours of dissertation work at Youngstown State University. Students may select a co-advisor from the engineering faculty at Youngstown State University. For further assistance regarding these options and to initiate a letter of interest, contact the College of Science, Technology, Engineering, and Mathematics.

Civil/Environmental and Chemical Engineering

Option Coordinator

Scott C. Martin
2445 Moser Hall
(330) 941-3026
scmartin@ysu.edu

Option Description

Civil engineers and chemical engineers apply scientific and engineering knowledge to protect and improve the public health and welfare through the intelligent shaping of our environment. Engineers in these disciplines face exciting global opportunities to participate in the development and management of safe, cost-effective infrastructure and industries. Graduate study in civil engineering and chemical engineering provides students with the scientific and professional knowledge necessary for their field of interest and develops student abilities to formulate solutions to new and complex problems in the context of current environmental, social, and economic considerations. These objectives are accomplished by flexible plans of study designed to meet the needs of the program's graduate students. Graduates find fulfilling careers in private industry, private consulting practice, and governmental service and are prepared for doctoral-level work leading to research/teaching careers. The program includes thesis, nonthesis, and engineering management plans and offers opportunities for advanced study in two main areas—environmental engineering and structural/transportation. Students with a chemical engineering background may pursue the

environmental engineering option or develop a self-directed plan with a chemical engineering emphasis. Cooperative Ph.D. programs with The University of Akron and Cleveland State University are also available, allowing students to begin doctoral study at YSU.

Facilities for advanced study and research are located in Moser Hall, which houses a variety of well-equipped laboratories. These include the structures and materials lab, hydraulics/fluid mechanics lab, environmental engineering lab, and geotechnical engineering lab. In addition, the college computer lab provides access to a large number of modern PCs with high-speed Internet connections.

Faculty Research Interests

Javed Alam, Ph.D., Professor
Structural mechanics, finite element analysis; fracture mechanics; computer applications in civil engineering: neural networks, expert systems, and computer visualization
Anwarul Islam, Ph.D., Assistant Professor
Structural design; hurricane and blast loading on bridges

Scott C. Martin, Ph.D., Professor
Water quality modeling; watershed management; pollutant-sediment interactions; sustainable development

Douglas Price, Ph.D., Associate Professor
Energy from renewable resources; catalytic fluidized bed simulation; injection molding; dynamic distillation column modeling

Degree Requirements

At the time of initial enrollment, the student will select a program plan (thesis, nonthesis, or management) and technical concentration area (environmental engineering or structural/transportation). Alternatively, a student may choose the self-directed option, which involves tailoring a program to meet specific career goals. The requirements for each option are listed in the general description of the Master of Science in Engineering program. Lists of required courses and possible electives for each plan may be obtained from the graduate program director.

In cooperation with an assigned faculty advisor, each student will establish a set of academic goals and desired outcomes, and a coursework plan to meet those objectives. Upon completion of the graduate program, all students will complete either a written or an oral assessment of the effectiveness of the program in meeting their established goals and outcomes.

Thesis students who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis are required to maintain current student status if they expect to utilize any University service (e.g., parking, computers, library, advisors' assistance, thesis defense, etc.). This can normally be accomplished by registering for at least one hour of CEEGR 6990.

Electrical and Computer Engineering

Option Coordinator

Jalal Jalali
2055 Moser Hall
(330) 941-3012
jjalali@cc.ysu.edu

Option Description

The Department of Electrical and Computer Engineering provides opportunities for post-baccalaureate study toward the Master of Science in Engineering. These opportunities serve the practicing engineer as well as the student who wants to pursue advanced graduate study and research. Thesis, nonthesis, and management plans are available.

Areas of study include control systems, digital systems, computer engineering, communications, computer-aided design, device and circuit modeling, solid-state devices, sensors, power systems, power electronics, electromagnetic fields, electromechanical systems, and system analysis and design. The student is encouraged to interact with the faculty and explore these opportunities.

Faculty Research Interests

Jalal Jalali, Ph.D., Professor and Chair
Power systems; electromagnetics; power electronics and industrial controls

Frank X. Li, Ph.D., Assistant Professor
RF engineering; software engineering; applied electromagnetic fields; wireless networks; DSP; VLSI; sensors

Faramarz Mossayebi, Ph.D., Associate Professor
Systems identification and control; time series analysis; nonlinear dynamics & chaos; system simulations; computational techniques; computer architecture

Advisement

The Department of Electrical and Computer Engineering requires an advisor for each graduate student. An advisor is assigned initially by the Graduate School upon acceptance. It is the responsibility of the student to initiate contact with his or her advisor, and this should be done as soon as possible before registering for the first time and at the time of course registration each semester. Every graduate student is responsible for completing an Option Plan form signed by the student, academic advisor, and the graduate option coordinator. This form must be completed within the first semester of the student's program. Courses taken without the advisor's permission may not fulfill the degree requirements. The student may seek another advisor in case of interest changes. Likewise, the student-advisor relationship may be terminated at the advisor's discretion. The option coordinator is available to discuss these and other issues as appropriate.

Degree Requirements

The basic degree requirements are described under the program description for the Master of Science in engineering. The Department's three plans of study leading to a Master of Science in Engineering are designed to accommodate the needs of every graduate student.

A graduate student who transfers from another accredited institution has the opportunity to transfer up to nine semester hours of his or her graduate coursework to the graduate program. The transferred courses must be approved by the academic advisor before or during the first semester in which the graduate student begins the graduate program. Graduate students are not allowed to count more than two 5800-level (swing) courses in their program of study. Any 5800-level course must be approved by the academic advisor.

Additional information regarding the program may be requested from the School of Graduate Studies and Research or the program option coordinator.

Industrial and Systems Engineering

Option Coordinator

Martin Cala
2520 Moser Hall
(330) 941-1746
mcala@ysu.edu

Option Description

The industrial engineering program option provides opportunities for interdisciplinary graduate studies toward the Master of Science in Engineering with specialization in engineering management or industrial/manufacturing systems engineering. Students can also pursue a self-directed plan of study focused on specialized areas of industrial and systems engineering, such as operations research.

All study plans are interdisciplinary and include some coursework from outside the department. They are designed to serve practicing engineers, as well as those students who want to pursue advanced graduate studies and research beyond the Master of Science in Engineering.

Faculty Research Interests

Martin Cala, Ph.D., Professor
Human factors; quality and productivity

Hojjat Mehri, Ph.D., Professor
Facilities design; manufacturing systems; engineering management

Special Admission Requirements

A minimum unrecalculated undergraduate grade point average of 3.0 (on a 4.0 scale) is required for all applicants with a nontechnical undergraduate degree. If accepted, these students are expected to satisfactorily complete a number of undergraduate deficiency courses before they are eligible to take certain graduate courses. The number and types of deficiency courses will be determined based on the student's previous academic programs/record. Students who are required to complete more than three deficiency courses at the undergraduate level will have admission deferred until deficiencies are complete. Costs for undergraduate deficiency courses are the student's responsibility.

Degree Requirements

The basic requirements are those already stated under the general program description for the Master of Science in Engineering. At the time of initial enrollment, the student will select a plan (thesis or nonthesis) and a concentration area (engineering management, industrial and systems engineering, or manufacturing engineering.) Alternatively, a student may choose the self-directed plan, which involves tailoring a program to meet specific career goals. In cooperation with an assigned faculty advisor, a special program of study will be developed for the student. The objective is to ensure meeting the student's academic goals and desired outcomes.

Thesis students who have registered for all required thesis hours and have completed all course requirements but have not finished the thesis are required to maintain current student status if they expect to receive/utilize University services (e.g., parking, computer, library, advisor assistance, thesis defense, committee action). This can normally be accomplished by registering for at least one hour of ISEN 6990.

Advising

For each graduate student an advisor is recommended by the program director and assigned by the School of Graduate Studies and Research upon acceptance. It is the responsibility of the student to initiate contact with his or her advisor, and this should be done as soon as possible before registering for the first time and at the time of course registration each semester. Courses taken without the permission of the advisor may not be used to meet the degree requirements. Every graduate student is responsible for determining an area of specialization by signing a special form designed for this purpose. A student may change his or her area of concentration or program of study in consultation with his or her advisor.

Mechanical Engineering

Option Coordinator

Daniel H. Suchora
2515 Moser Hall
(330) 941-3015
dhsuchora@ysu.edu

Option Description

The program option in mechanical engineering offers the Master of Science in Engineering with specialization within the general mechanical engineering disciplines. Thesis, nonthesis, or management plans are available. The department also offers students an area of concentration for interdisciplinary graduate studies with specialization in solid/structural mechanics, control systems, and energy/power systems. A student may also develop a self-directed/career-oriented program of study.

The technical concentration plan is for students who seek to deepen their theoretical knowledge and strengthen their ability to solve more advanced engineering problems, while the management plan is for those who wish to include managerial training in their program of preparation. The three specialized areas of interdisciplinary studies allow students to focus on specialized areas that require interdisciplinary cooperation among the Departments of Civil Engineering, Electrical Engineering, and Chemical Engineering.

The Department of Mechanical Engineering has excellent computer and laboratory facilities that provide for the following design and research capabilities: solid modeling, FEA in stress analysis, structural dynamics and heat transfer, experimental stress analysis, vibrations and noise control, computational and experimental heat transfer and fluid dynamics, and advanced machine design.

Faculty Research Interests

Hyun W. Kim, Ph.D., P.E., Professor
Heat transfer; alternative energy; fluid power

Hazel Marie, Ph.D., D.A.S., Assistant Professor
Control; fluid thermal sciences; CAD; modeling

Elvin B. Shields, Ph.D., P.E., Professor
Flow-induced vibration; advanced fracture mechanics

Daniel H. Suchora, Ph.D., P.E., Professor and Chair
Kinematics and dynamics of machines; finite element analysis

Degree Requirements

The Department of Mechanical and Industrial Engineering provides opportunities for post-baccalaureate study toward the Master of Science in Engineering. Students exercising the thesis option are required to complete 24 semester hours of coursework and at least six semester hours of thesis. Students choosing the nonthesis option will be required to complete 30 semester hours of coursework and complete MECH 6992 Graduate Project. A topic for the graduate project may be selected that is mutually of interest to the student, faculty of engineering school, and/or engineering industry. The coursework must include nine semester hours of engineering core courses for the thesis option or 12 semester hours for nonthesis option. The basic degree requirements are described under the general program description for the Master of Science in Engineering. However, for the technical concentration with management emphasis 12 semester hours of core courses, 12 semester hours of mechanical engineering courses, nine semester hours of business courses, and three semester hours of special topics are required. The student, at the time of initial enrollment, will be assigned an academic advisor and, with the help of his or her advisor, shall develop a study plan that includes goals and desired outcomes, and coursework plan. The plan may be revised, if necessary, as the study progresses.

Master of Science in Nursing

Clinical Options

Clinical Nurse Specialist—Chronic Illness Care
School Nurse
Nurse Anesthetist

Program Director and Option Coordinator–Clinical Nurse Specialist–Chronic Illness Care

Louise Aurilio
3067 Cushwa Hall
(330) 941-1791
laaurilio@ysu.edu

Option Coordinator–School Nurse

Nancy W. Mosca
3062 Cushwa Hall
(330) 941-1793
nwmosca@ysu.edu

Option Coordinator–Nurse Anesthetist

Patricia Hoyson
3087 Cushwa Hall
(330) 941-3292
plhoyson@ysu.edu

Program Description

The Master of Science in Nursing program is designed for baccalaureate-prepared nurses who have strong undergraduate foundations in critical thinking, decision-making, and nursing practice. The program consists of three options, with specialization in clinical nursing for chronic illness care, nurse anesthesia, and school nursing. The core curriculum centers on professional nursing issues, nursing science, and research methods for building nursing knowledge. The advanced practice chronic illness care option focuses on the delivery of comprehensive care to individuals and groups experiencing chronic illnesses. The nurse anesthetist option focuses on the administration of anesthesia to individuals requiring surgical and nonsurgical diagnostic procedures. The school nurse option focuses on delivery of comprehensive care to individuals in the school environment.

The Master of Science in Nursing program is accredited by the National League for Nursing Accrediting Commission, Inc. (NLNAC). In addition, the nurse anesthetist option is fully accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA). For additional information regarding accreditation, contact the NLNAC:

National League for Nursing Accrediting Commission (NLNAC)
61 Broadway
New York, NY 10006
Telephone: 1-800-699-1656, ext. 153
Fax: (212) 812-0390

All graduates of the program are prepared to

- utilize appropriate theories to provide high quality nursing care.
- provide cost-effective, ethical, and quality management of health care resources in diverse

settings.
- apply knowledge of the Health Care Delivery System through utilization of appropriate system mechanisms.
- synthesize research findings for practice utilization.
- conduct and participate in nursing research studies.

Upon successful completion of the M.S.N. program, graduates are eligible to sit for national certification examinations. Once certified, graduates must apply for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or of the state in which they intend to practice.

Graduates of the clinical nurse specialist—chronic illness care option are prepared to
- practice in advanced nursing roles within the Health Care Delivery System.
- incorporate a variety of theories from nursing and related fields into nursing practice and management roles.
- analyze social issues related to the Health Care Delivery System and advanced nursing practice.

Graduates of the school nurse option are prepared to
- work in the clinical practice specialty of school health utilizing advanced practice nursing roles.
- incorporate a variety of theories from nursing and related fields into nursing practice and management roles.
- analyze social issues related to the Health Care Delivery System and advanced nursing practice.

Graduates of the Nurse Anesthetist option are prepared to
- administer anesthesia in a variety of practice settings to patients needing anesthesia care.
- utilize advanced practice nursing roles within the Health Care Delivery System.

The Master of Science in Nursing in nurse anesthesia is a cooperative program between Youngstown State University and St. Elizabeth Health Center School for Nurse Anesthetists, Inc. All courses are taught by YSU graduate faculty. Humility of Mary Health Partners supports the program by providing clinical and other resources at St. Elizabeth Health Center. Students gain experience in the use of many anesthetic agents and techniques and are supervised by Certified Registered Nurse Anesthetists (CRNAs) and Staff Anesthesiologists from Bel-Park Anesthesia Associates, Inc. Upon successful completion of the degree program, graduates are eligible to sit for the National Certification Exam by the Council on Certification of Nurse Anesthetists. Once certified, CRNAs must apply for a Certificate of Authority to practice as an Advanced Practice Nurse in the State of Ohio or abide by the laws of the state in which they intend to practice.

Acceptance into the YSU Master of Science in Nursing program is contingent upon acceptance into the St. Elizabeth Health Center School for Nurse Anesthetists, Inc. For additional admission information specific to the Nurse Anesthetist option please contact Beverly A. Rodgers:

Beverly A. Rodgers, CRNA, M.Ed.
Program Director
St. Elizabeth Health Center School for Nurse Anesthetists, Inc.
(330) 480-3444
brodgers@belpark.net

Faculty Research Interests

Louise Aurilio, Ph.D., Associate Professor, M.S.N. Program Director and Option Coordinator, Clinical Nurse Specialist—Chronic Illness Care
Women's health; nursing administration; quality of life nursing education; high risk pregnancy; maternal/child health; chronic illness risk

Dorcas C. Fitzgerald, Ph.D., R.N., C.N.S., Professor and RN-BSN Program Coordinator
Gerontology; dementia; health benefits and risks; nursing shortage; faculty issues

Patricia Hoyson, Ph.D., R.N., C.N.S., C.D.E., Associate Professor, Chair, and Nurse Anesthetist Option Coordinator
Diabetes; critical thinking; patient education; nursing education

Patricia A. McCarthy, Ph.D., A.P.R.N.B.C., Professor
Program planning and evaluation; critical thinking; clinical nursing education

Nancy Mosca, Ph.D., R.N. C.N.S., Professor and Clinical Nurse Specialist–School Nurse Option Coordinator
School nursing; school health; child obesity; autism; public health

Pamela M. Schuster, Ph.D., R.N., Professor
Clinical nursing research; research in nursing education

Sharon P. Shipton, Ph.D., R.N., C.N.S., Professor
Stress and coping; nursing education research; qualitative research methodologies; pharmacology; program evaluation plan research.

Admission Requirements

In addition to the School of Graduate Studies and Research admission requirements, all nursing applicants must meet the following requirements:

- Regular admission requires an unrecalculated cumulative undergraduate grade point average of at least 3.0 (on a 4.0 scale)
- Satisfactory completion of undergraduate courses in health assessment, statistics, and research methods
- Hold a B.S.N. degree from an accredited program
- Eligibility of Ohio licensure as a registered nurse
- Current CPR certification and current immunizations are to be maintained while in the program
- All nurse anesthetist applicants must submit an official report of Graduate Record Examination (General Test) scores completed within the past five years. Clinical Nurse Specialist applicants with an unrecalculated cumulative grade point average of less than 3.0 (on a 4.0 scale) must submit an official report of Graduate Record Examination (General Test) scores completed within the past five years.
- Official transcripts for each college or institution of higher learning attended (other than YSU)
- Three letters of reference: one each from a faculty member, an employer, and a colleague
- A 300-word essay (letter of intent) stating one's professional goals and how graduate education in nursing will help fulfill said goals
- Students not meeting regular admission requirements may be provisionally admitted. See the *Graduate Bulletin* under Provisional Admission.

Degree Requirements

The areas of coursework in the M.S.N. program include core courses (15 semester hours), and one of the following three options: the clinical nurse specialist—chronic illness care option (27 semester hours), or the school nurse option (27 semester hours), or the nurse anesthetist option (34 semester hours).

The breakdown of these course requirements is as follows:

Core Courses		15 s.h.
NURS 6900	Professional Issues in Nursing	3 s.h.
NURS 6901	Nursing Science and Research I	3 s.h.
NURS 6902	Advanced Pathophysiology	3 s.h.
NURS 6906	Advanced Statistics	2 s.h.
NURS 7002	Nursing Science and Research II	2 s.h.
NURS 7005	Research Practicum	2 s.h.
Clinical Nurse Specialist—Chronic Illness Care Option		27 s.h.
NURS 6903	Advanced Pharmacology	3 s.h.
NURS 6904	Advanced Health Assessment	3 s.h.
NURS 6905	Health Assessment Practicum	5 s.h.
NURS 7000	Chronic Illness Care	3 s.h.
NURS 7001	Chronic Illness Care Practicum	5 s.h.
NURS 7003	Role Development	3 s.h.
NURS 7004	Role Development Practicum	5 s.h.
School Nurse Option		27 s.h.
FOUN 6902	Sociological Bases of Education	3 s.h.
SPED 5802	Education of Exceptional Children	3 s.h.
NURS 6907	Health Assessment of School Children	3 s.h.
NURS 6908	Health Assessment of School Children Practicum	2 s.h.
NURS 7008	Schools and Health	3 s.h.
NURS 7014	Health Management in Schools	3 s.h.
NURS 7015	Health Management in Schools Practicum	2 s.h.
NURS 7016	School Nurse Role	3 s.h.
NURS 7017	School Nurse Role Practicum	5 s.h.
Nurse Anesthetist Option		34 s.h.
NURS 6910	Professional Aspects of Nurse Anesthesia	3 s.h.
NURS 6911	Pharmacology I	3 s.h.
NURS 6912	Pharmacology II	3 s.h.
NURS 6913	Chemistry and Medical Physics in Anesthesia Practice	3 s.h.
NURS 6914	Human Anatomy, Physiology, and Pathophysiology I	3 s.h.
NURS 6916	Anesthesia Principles I	2 s.h.
NURS 7010	Human Anatomy, Physiology, and Pathophysiology II	3 s.h.
NURS 7011	Anesthesia Principles II	6 s.h.
NURS 7012	Anesthesia Principles III	8 s.h.

The total semester hours required for the nurse anesthetist option are greater than the usual hour requirements for other master's programs at YSU. The increased number of hours is necessary in order to meet the COA requirements for a nurse anesthesia program.

School Nurse Licensure

Youngstown State University offers a series of courses that meet the Ohio Department of

Education's requirements for school nurse licensure. The School Nurse Licensure Program is designed to build upon an undergraduate education and to prepare the school nurse to be an effective member of the professional school community. This program requires 20-22 credit hours (semester system) with courses taught by both the Nursing program and the College of Education. Included in the School Nurse Licensure Program are 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. All courses are either web-based or meet one evening per week.

Students seeking admission into the School Nurse Licensure Program must have a baccalaureate degree with course work 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). The Ohio RN license is necessary prior to practicum placement.

For further information about School Nurse Licensure, contact Dr. Nancy W. Mosca, Department of Nursing, at (330) 941-1793 or nwmosca@ysu.edu.

Master of Social Work

Program Director

Dennis Morawski
3033 Cushwa Hall
(330) 941-1690
dpmorawski@ysu.edu

Program Description

The Master of Social Work program prepares graduates for advanced social work practice with disenfranchised clients. The organizing framework for the M.S.W. program is the strengths-based empowerment approach. This approach emphasizes helping individuals, families, and communities recognize and utilize their capacities; gain awareness of available options; understand the barriers and obstacles they may face; reinforce their hopes and aspirations; and integrate internal and external resources to improve the quality of their lives. The M.S.W. program focuses on advanced direct practice with individuals, families, groups, and communities.

A critical purpose of the M.S.W. program is to develop competent, ethical, and effective professionals capable of utilizing advanced knowledge, skills, and values to promote social justice in the delivery of social services within a diverse society. The integration social work knowledge, values, and skills are achieved through both academic coursework and field placement experiences.

Accreditation

The program is fully accredited by the Council on Social Work Education.

Faculty Research Interests

Shirley Keller, Ph.D., Associate Professor
Evaluation outcome measurements; program evaluation; health care issues

Dennis Morawski, Ph.D., Associate Professor
Community mental health; welfare reform; group work; volunteerism

Michael Murphy, Ph.D., Associate Professor and Chair
Community development; planning; management; administration

Thelma Silver, Ph.D., Associate Professor
Community mental health; mental health recovery; crisis intervention; group work

Lee R. Slivinske, Ph.D., Professor
Issues of aging; service utilization by the elderly; functional disabilities

Admission Requirements

Applicants to the M.S.W. program are encouraged to review the admission criteria listed below, as they exceed the minimum standards established by the School of Graduate Studies and Research. Meeting minimum criteria does not guarantee admission. Applicants are evaluated by the Social Work Department's Graduate Admissions Committee to ensure that qualifications are evaluated in a manner consistent with the M.S.W. program's requirements. Application packets are available through the Department of Social Work or the School of Graduate Studies and Research. Students who are admitted may enter the program only during the fall semester of each academic year.

Admission to the M.S.W. program is based on the following criteria that allow evaluation of the student's potential to succeed in graduate-level social work education, as well as an assessment of their ability to engage in ethical and competent social work practice in a diverse society.

Regular Admission

In addition to the minimum School of Graduate Studies and Research admissions requirements, all applicants must meet the following requirements for regular admission to the Master of Social Work program:

- an undergraduate degree, preferably in a social science, from an accredited college or university;
- an unrecalculated cumulative grade point average of 3.0 or above (on a 4.0 scale) in all undergraduate coursework;
- work or volunteer experience related to preparation for professional social work practice;
- three letters of recommendation completed on official forms. Recommendations should include one academic source, one professional source, and one additional source from either of the aforementioned;
- a professional statement reflecting how completion of the M.S.W. will impact upon the student's professional goals and objectives; and
- an optional personal interview and/or additional information as requested by the program's admission committee.
- For non-B.S.W. applicants, one approved social work course OR one course each in the following is required: psychology, sociology, or political science.

Provisional Admission

Applicants with an unrecalculated undergraduate cumulative grade point average of 2.7 to 2.99 (on a 4.0 scale) may be admitted provisionally. Applicants with an unrecalculated undergraduate cumulative grade point average of less than 3.0 (on a 4.0 scale) must achieve a score at the 30th percentile or above on the Miller's Analogy Test (MAT), or achieve a score at the 30th percentile or above on the verbal and analytical writing sections of the Graduate Record Examination general test (GRE). Applicants with unrecalculated undergraduate cumulative grade point averages of 3.0 or better (on a 4.0 scale) are not required to submit MAT or GRE scores.

Advanced Standing program (ASP) Admission

The Advanced Standing program is accelerated for highly qualified graduates of the Council on Social Work Education (C.W.S.E.) accredited Bachelor of Social Work (B.S.W.) programs. The Advanced Standing Program permits students to complete all requirements of the M.S.W. degree in 36 semester hours. The regular program is completed in 60 semester hours.

Admission to the ASP is granted to applicants with superior academic and professional social work qualifications.

Applicants seeking admission to the Advanced Standing program must meet all admission requirements for the Master of Social Work program in addition to the following:

- possess a Bachelor of Social Work degree or its equivalent from a C.W.S.E. accredited program within six years prior to enrollment;
- have achieved an unrecalculated cumulative grade point average of at least a 3.25 (on a 4.0 scale) in all undergraduate coursework; and
- have achieved A's and B's in all junior and senior level social work courses.

Individuals who wish to take coursework for the purpose of continuing education and/or expansion of professional competencies should contact the Department of Social Work. The Social Work Department chairperson or his or her designee must approve any graduate social work

courses taken by students not admitted to the M.S.W. program.

Degree Requirements

Sixty semester hours of coursework are required for completion of the Master of Social Work degree. The program may be completed in two years, three years, or five years. Foundation social work content is comprised of eight courses and a field practicum with an emphasis on the following areas: social work values and ethics, diversity, populations at risk, social and economic justice, human behavior in the social environment, social welfare policy and services, social work practice, research, and business skills for social workers. The foundation field practicum is designed to provide the student with learning experiences that promote and integrate the achievement of foundation objectives. The foundation field practicum is taken in two consecutive semesters for a total of six credit hours per year. Students engage in fieldwork activities for two days a week over two semesters of 30 weeks (480 hours).

Advanced content areas consist of an additional eight advanced courses and an advanced field practicum with an emphasis on knowledge, skills, and values for advanced direct social work practice. Advanced-level students' field placement activities occur in three days for two semester periods totaling 30 weeks (740 hours).

Students in the Master of Social Work program must maintain all School of Graduate Studies and Research retention requirements. In addition, students must meet standards defined by the Master of Social Work program that are included in the Youngstown State University Master of Social Work Program, Student Handbook.

Course Outline: Two-Year Full-Time Option

First Year—First Semester

SCWK 6900	Human Behavior and the Social Environment I	3 s.h.
SCWK 6901	Oppressed Populations	3 s.h.
SCWK 6902	Social Welfare Policy and Program Analysis	3 s.h.
SCWK 6903	Social Work Foundation Practice I	3 s.h.
SCWK 6904	Field Education I	3 s.h.

First Year—Second Semester

SCWK 6905	Human Behavior and the Social Environment II	3 s.h.
SCWK 6906	Business Skills for Social Workers	3 s.h.
SCWK 6907	Social Work Foundation Practice II	3 s.h.
SCWK 6908	Research	3 s.h.
SCWK 6909	Field Education II	3 s.h.

Second Year—First Semester

SCWK 7000	Advanced Direct Practice I	3 s.h.
SCWK 7002	Adversities and Resiliencies	3 s.h.
SCWK 7004	Practice Evaluation	3 s.h.
SCWK 7008	Social Work in Mental Health	3 s.h.
SCWK 7009	Field Education III	3 s.h.

Second Year—Second Semester

SCWK 7003	Theory and Practice of Supervision	3 s.h.
SCWK 7010	Advanced Direct Practice II	3 s.h.
SCWK 7012	Field Education IV	3 s.h.

SCWK 7013	Capstone	3 s.h.
	Approved elective*	3 s.h.

Course Outline: Three-Year Full-Time Option

First Year—First Semester

SCWK 6900	Human Behavior and the Social Environment I	3 s.h.
SCWK 6901	Oppressed Populations	3 s.h.
SCWK 6902	Social Welfare Policy and Program Analysis	3 s.h.

First Year—Second Semester

SCWK 6905	Human Behavior and the Social Environment II	3 s.h.
SCWK 6906	Business Skills for Social Workers	3 s.h.
SCWK 6908	Research	3 s.h.

Second Year—First Semester

SCWK 6903	Social Work Foundation Practice I	3 s.h.
SCWK 6904	Field Education I	3 s.h.
SCWK 7002	Adversities and Resiliencies	3 s.h.

Second Year—Second Semester

SCWK 6907	Social Work Foundation Practice II	3 s.h.
SCWK 6909	Field Education II	3 s.h.
SCWK 7003	Theory and Practice of Supervision	3 s.h.

Third Year—First Semester

SCWK 7000	Advanced Direct Practice I	3 s.h.
SCWK 7004	Practice Evaluation	3 s.h.
SCWK 7008	Social Work in Mental Health Settings**	3 s.h.
SCWK 7009	Field Education III	3 s.h.

Third Year—Second Semester

SCWK 7010	Advanced Direct Practice II	3 s.h.
SCWK 7012	Field Education IV	3 s.h.
SCWK 7013	Capstone	3 s.h.

Course Outline: four-Year Part-Time Option

First Year—First Semester

SCWK 6900	Human Behavior and the Social Environment I	3 s.h.
SCWK 6901	Oppression and Cultural Competence	3 s.h.

First Year—Second Semester

SCWK 6905	Human Behavior and the Social Environment II	3 s.h.
	Approved Elective	3 s.h.

Second Year—First Semester

SCWK 6902	Social Welfare Policy and Program Analysis	3 s.h.
SCWK 7002	Adversities and Resiliencies	3 s.h.

Second Year—Second Semester

* may be taken any semester
** may be taken any semester

SCWK 6906	Business Skills for Social Workers	3 s.h.
SCWK 6908	Research	3 s.h.

Third Year—First Semester

SCWK 6903	Social Work Foundation Practice I	3 s.h.
SCWK 7004	Practice Evaluation	3 s.h.
SCWK 6904	Field Education I	3 s.h.

Third Year—Second Semester

SCWK 6907	Social Work Foundation Practice II	3 s.h.
SCWK 7003	Theory and Practice of Supervision	3 s.h.
SCWK 6906	Field Education II	3 s.h.

Fourth Year—First Semester

SCWK 7000	Advanced Direct Practice I	3 s.h.
SCWK 7008	Social Work in Mental Health Settings	3 s.h.
SCWK 7009	Field Education III	3 s.h.

Fourth Year—Second Semester

SCWK 7010	Advanced Direct Practice II	3 s.h.
SCWK 7012	Field Education IV	3 s.h.
SCWK 7013	Capstone	3 s.h.
Total		**60 s.h.**

Course Outline: Advanced Standing Program, Full-Time Option

Fall Semester

SCWK 6908	Research	3 s.h.
SCWK 6909	Field Education II	3 s.h.
SCWK 7000	Advanced Direct Practice I	3 s.h.
SCWK 7002	Adversities and Resiliencies	3 s.h.
	Approved Elective	3 s.h.

Spring Semester

SCWK 6906	Business Skills for Social Workers	3 s.h.
SCWK 7003	Theory and Practice of Supervision	3 s.h.
SCWK 7004	Practice Evaluation	3 s.h.
SCWK 7009	Field Education III	3 s.h.
SCWK 7010	Advanced Direct Practice II	3 s.h.

Summer Semester

SCWK 7012	Field Education IV	3 s.h.
SCWK 7013	Capstone	3 s.h.

Graduate Certificates

Autism Spectrum and Related Disabilities

Department of Teacher Education

Margaret L. Briley, Chair
2401 Beeghly Hall
(330) 941-3266
mlbriley@ysu.edu

Certificate Description

This five-course certificate (19 semester hours) is designed to meet the needs of students in educationally related fields, such as psychology, nursing, school counseling, and speech and language therapy. Students in related fields, such as speech and language pathology, psychology, etc., will receive this certificate upon the completion of the certificate requirements. During a summer internship, students seeking this graduate certificate are required to demonstrate appropriate data-based assessment, teaching and learning standards of knowledge, skills, and dispositions as specified by the National Council for Accreditation of Teacher Education and the Council for Exceptional Children. Frequency of course offerings allows most students to earn the certificate within two semesters and two summer sessions.

Certificate Requirements

Students must complete the following four courses:

SPED 5810	Introduction to Sign Language	3 s.h.
SPED 6996	Teaching Strategies/Autism	4 s.h.
SPED 6998	Alternative and Augmentative Communication (AAC) Strategies	3 s.h.
SPED 6999	Field Experiences Autism/Related Disorders	6 s.h.

Students must complete one course from the following list:

PSYC 6960	Fundamentals of Applied Behavior Analysis	3 s.h.
PSYC 6990	Seminar in Psychology: Topics in Asperger's Syndrome	3 s.h.

Bioethics

Department of Philosophy and Religious Studies

Brendan Minogue, Certificate Codirector
Bruce Waller, Certificate Codirector
411 DeBartolo Hall
(330) 941-1627
bpminogue@ysu.edu
bnwaller@aol.com

Certificate Description

This two-course sequence (eight semester hours) is designed to meet the needs of working professionals in health care and related fields and other people who wish to pursue postgraduate study in bioethics. The sequence will be of particular value to those serving or preparing to serve on institutional ethics committees in hospitals, home health care services, nursing homes, and elsewhere, as well as other people (in local government, insurance, and the media, for example) who wish to explore major questions and recent developments in bioethics.

Certificate Requirements

To receive a certificate in bioethics, students must complete eight semester hours of courses, typically PHIL 6900 Ethics in Medicine and the Health Care Professions and PHIL 6901 Bioethics and Public Policy, with a grade point average of 3.0 or above in those courses.

For admission to the graduate sequence in bioethics, students must meet the requirements for admission to the School of Graduate Studies and Research at YSU and have other preparation or experience judged satisfactory by the Department of Philosophy and Religious Studies. Preparation or experience that may qualify as satisfactory includes, but is not limited to, training or experience in the health care professions.

Enterprise Resource Planning

Department of Management

Ram Kauganti, Chair
646 Williamson Hall
(330) 941-3070
rrkasuganti@ysu.edu

Certificate Description

This four-course certificate (11 semester hours) is designed to meet the needs of current M.B.A. students and M.B.A. gradutes interested in enhancing their effectiveness in organizations using Enterprise Resource Planning software, which is increasingly prevalent in today's business organizations. Students will have intensive hands-on experience with SAP-ERP software. The program covers topics such as ERP software evaluation and selection, materials management, configuration, and supply chain management. The overall goal of this certificate is to enable students (both current and future managers) in all areas of a business organization to be effective users of integrated ERP software and to be effective participants in managing the evaluation, installation, and use of ERP software.

Certificate Requirements

Students must complete the following four courses:

MGT 6917	Information Systems for Management	2 s.h.
MGT 6921	Operations Management	3 s.h.
MGT 6968	Business Process Integration (BPI)	3 s.h.
MGT 6985	Supply Chain Management	3 s.h.

Non-business graduate students and area professionals with non-business degrees must complete 8 s.h. of M.B.A. foundations courses (MGT 6900, MKTG 6900, and ACCT/FIN 6900) in addition to the 11 s.h. required for the certificate (total of 19 s.h.).

Environmental Studies

Department of Geological and Environmental Sciences

Isam E. Amin, Certificate Director
2075 Moser Hall
(330) 941-2293
ieamin@ysu.edu

Certificate Description

This sequence of 15 semester hours is designed to meet the needs of students and working professionals preparing for leadership roles in environmental science or management. The graduate certificate is focused in two tracks, with specialization in risk management and industrial/institutional management. This program is especially useful for careers with regulatory agencies, industries seeking compliance with environmental regulations or focusing on environmental management systems, research facilities, and consulting firms providing state-of-the-art assessment, management, and remediation. The program will also prepare the student to continue graduate studies leading to higher degrees.

Certificate Requirements

To receive a certificate in environmental studies, all students must complete 15 semester hours of credit from coursework listed below. A grade point average of 3.0 or above must be achieved for all 15 semester hours of credit.

Core Courses (Taken by certificate candidates in both tracks)		6 s.h.
ENST 6900	Advanced Environmental Studies	3 s.h.
ENST 6901	Sources of Contamination	3 s.h.

Students may choose the risk management or the industrial/institutional management track.

Risk Management Track		9 s.h.
Both:		
ENST 6930	Risk Management	3 s.h.
ENST 6931	Ecological Risk Assessment	3 s.h.
Choose:		
ALHT 5807	Epidemiology	3 s.h.
BIOL 5803	Population and Community Ecology	3 s.h.
BIOL 5804	Aquatic Biology	3 s.h.
BIOL 5806	Field Ecology	3 s.h.
BIOL 6996	Environmental Biology Topics	1–3 s.h.
CHEM 5801	Elements of Physical Chemistry	3 s.h.
CHEM 6941	Advancxed Organic Chemistry I	2 s.h.
CHEM 6944	Natural Products	2 s.h.
ENST 5830	Risk Assessment	3 s.h.

Industrial/Institutional Management Track		9 s.h.
Both:		
ENST 6920	Environmental Compliance	3 s.h.
ENST 6921	Industry/Institutional Management for the Environmental	

	Professional	3 s.h.

Choose:

CEEN 6968	Industrial Waste Treatment	3 s.h.
ENGR 6925	Applied Environmental Management	3 s.h.
ENST 5800	Environmental Impact Assessment	3 s.h.
ENST 5830	Risk Assessment	3 s.h.
ENST 6910	Environmental Management Systems Standards (ISO 14001)	1 s.h.
ENST 6930	Risk Management	3 s.h.
MGT 6900	The Foundation of Management	2 s.h.
MGT 6925	Quality Management	3 s.h.

Undergraduate courses will not qualify for the certificate, but the following may be suggested for preparation for courses above:

AHLT 4831	Introduction to Industrial Hygiene	3 s.h.
CHEM 3764	Chemical Toxicology	2 s.h.
CEEN 4837	Environmental Engineering II	3 s.h.

Health Care Management

Department of Health and Human Services

Carol Mikanowicz, Certificate Director
1086 Cushwa Hall
(330) 941-3658
ckmikanowicz@ysu.edu

Certificate Description

The health care management graduate certificate is a collaborative program between The Bitonte College of Health and Human Services and the Warren P. Williamson, Jr. College of Business Administration. The sequence of 18 semester hours is designed to meet the needs of students and working professionals preparing for leadership roles in health care management. The certificate consists of six semester hours of business tool courses and 12 semester hours of health care management courses.

Certificate Requirements

Applicants interested in the healthcare management certificate must apply to and be accepted into the Master of Health and Human Services degree program. Students in the healthcare management certificate track are not obligated to complete the Master of Health and Human Services degree.

Certificate Requirements

Students must complete six semester hours from the following:

ECON 6900	Statistical Problems	3 s.h.
ECON 6901	Basic Economic Analysis	3 s.h.
FIN 6900	Financial Accounting and Finance for Decision Making	4 s.h.
MGT 6900	Foundations of Management	2 s.h.
MGT 6917	Information Systems for Management	2 s.h.
MKTG 6900	Foundations of Marketing	2 s.h.

Students must complete nine semester hours from the following:

CHHS 6918	Program Planning and Evaluation	2 s.h.
CHHS 6922	Planning and Fiscal Management	4 s.h.
CHHS 6959	Foundation and Planning	3 s.h.
CHHS 6960	Implementation and Evaluation	3 s.h.
MGT 6961	Optimizing Human Performance in Organizations	3 s.h.

Students must complete three semester hours from the following:

CHHS 6949	Community Health Practices	3 s.h.
CHHS 6953	Health Behavior	3 s.h.
CHHS 6958	Health Services Issues	3 s.h.

Total hours required for certificate 18 s.h.

Literature for Children and Young Adults

Department of English

Gary Salvner, Chair
206 DeBartolo Hall
(330) 941-3414
gsalvner@ysu.edu

Certificate Description

This four-course certificate (12 semester hours total) is designed to increase students' knowledge of children's and young adult literature while helping them achieve certain career goals. For students who intend to pursue doctoral work, concentrated study in children's and young adult literature will help to prepare them to specialize in these fields at the doctoral level. For those who teach at the elementary, middle school, and high school levels, such study will enhance their teaching careers by increasing their knowledge of literature for young people and helping satisfy certain professional development requirements of local school districts. For prospective or practicing librarians, the certificate will provide further expertise in establishing and maintaining library collections for young readers. Depending upon course rotation, students may finish the certificate within one year.

Certificate Requirements

Students must complete the following three courses:

ENGL 6918	Studies in Children's Literature	3 s.h.
ENGL 6919	Studies in Young Adult Literature	3 s.h.
ENGL 6927	Historical Survey of Literature for Young People	3 s.h.

Students must complete one course from the following, if the topic relates to children's or young adult literature, with permission of the certificate director:

ENGL 6906	Teaching of Literature	3 s.h.
ENGL 6918*	Studies in Children's Literature	3 s.h.
ENGL 6919*	Studies in Young Adult Literature	3 s.h.
ENGL 6975	English Education Seminar	3 s.h.
ENGL 6976	Studies in English Education	3 s.h.
ENGL 6990	Special Topics	3 s.h.

Or students may elect to take one course in a related discipline (e.g., psychology, history, education, art) when content is appropriate, with permission of the certificate director.

To be eligible for the graduate certificate in literature for children and young adults, students need not have an undergraduate degree in English, but they must have a B.A. or B.S. degree and meet the requirements for admission to the School of Graduate Studies and Research at YSU. Certificate courses must be completed with a GPA of at least 3.0.

* May be repeated with a different topic.

Professional Writing and Editing

Department of English

Julia M. Gergits, Certificate Director
237 DeBartolo Hall
(330) 941-3419
jmgergits@ysu.edu

Certificate Description

This four-course certificate (12 semester hour) is designed to meet the needs of students preparing for careers as technical writers and editors; company news and information directors; or grant and proposal writers for schools, hospitals, nonprofit organizations, and fine and performing arts groups. Frequency of course offerings allows most students to finish the certificate within four semesters.

Certificate Requirements

Students must complete the following four courses:

ENGL 6943	Technical Communication	3 s.h.
ENGL 6944	Document Design and Production	3 s.h.
ENGL 6953	Publications Issues and Management	3 s.h.
ENGL 6992	Professional Communication	3 s.h.

Although ENGL 6998 Professional Writing Internship does not count toward the 12 semester hour requirement for the certificate, students are strongly urged to take this course or seek equivalent professional experience. To be eligible for the professional writing and editing graduate certificate, students need not have an undergraduate degree in English, but they must have a B.A. or B.S. degree and meet the requirements for admission to the School of Graduate Studies and Research at YSU.

Teaching English to Speakers of Other Languages (TESOL)

Department of English

Steven Brown, Certificate Director
229 DeBartolo Hall
(330) 941-1654
srbrown02@ysu.edu

Certificate Description

This four-course sequence (12 semester hours) is valuable for anyone who wishes to gain more knowledge of second/foreign language learning. It is also useful as a springboard to further graduate work in the field. It is designed to meet the needs of K–12 language arts instructors who want more information but not necessarily state validation; writing instructors at two-year colleges; and students who would like to enter doctorate programs in applied linguistics, English as a second language, or second language acquisition. Students gain an understanding of issues of language acquisition and language pedagogy.

Certificate Requirements

Students who have not taken an introductory linguistics course at the undergraduate level will be expected to do extra reading to get an understanding of basic terms. The department's advanced linguistics course (ENGL 6955) may also serve to provide background. Students should see an advisor for the TESOL certificate program.

Students must complete the following four courses:

ENGL 6950	Sociolinguistics	3 s.h.
ENGL 6951	Language Acquisition	3 s.h.
ENGL 6956	TESOL Methods	3 s.h.
ENGL 6958	English Grammar	3 s.h.

To be eligible for the graduate certificate in the teaching of English to speakers of other languages, students need not have an undergraduate degree in English or linguistics but must have a B.A. or B.S. and meet requirements for admission to the School of Graduate Studies and Research at YSU.

Teaching of Writing
Department of English

Kevin Ball, Certificate Director
244 DeBartolo Hall
(330) 941-3417
keball@ysu.edu

Certificate Description

This four-course certificate (12 semester hours) is valuable as an enhancement for employment as a writing instructor and also as a springboard to further graduate work in the field. It is designed to meet the needs of K–12 language arts teachers; writing instructors at two-year colleges; and YSU graduate students who would like to enter doctorate programs in rhetoric and composition. Students gain understanding of issues in the field of rhetoric and composition, such as current writing pedagogy, assessment of writing, language theory, language varieties, multicultural literacies, electronic literacies, and teaching strategies incorporating electronic media. Frequency of course offerings allows most students to finish the certificate in two to three semesters.

Certificate Requirements

Students must complete four courses chosen from the following three groups:

Required

ENGL 6907	Teaching of Writing	3 s.h.
ENGL 6993	Discourse Theory	3 s.h.

One from among the following courses:

ENGL 6901	Methods of Composition Research	3 s.h.
ENGL 6921	Advising Student Publications	3 s.h.
ENGL 6976	Studies in English Education (if topic applies to rhetoric and composition)	3 s.h.
ENGL 6990	Special Topics (if topic applies to rhetoric and composition)	3 s.h.

One from among the following courses:

ENGL 6950	Sociolinguistics	3 s.h.
ENGL 6958	English Grammar	3 s.h.
ENGL 6960	Studies in Linguistics (if topic applies to rhetoric and composition)	3 s.h.

To be eligible for the graduate certificate in teaching of writing, students need not have an undergraduate degree in English but must have a B.A. or B.S. degree and meet requirements for admission to the School of Graduate Studies and Research at YSU.

Working-Class Studies

Center for Working-Class Studies

Sherry Linkon, Certificate Codirector
John Russo, Certificate Codirector
Smith Hall, First Floor
(330) 941-2977
sllinkon@ysu.edu

The Center for Working-Class Studies (CWCS) at YSU, the first center of its kind in the United States, is a multidisciplinary research, teaching, and outreach center focused on working-class culture and history. The CWCS has faculty affiliates from nine departments in the College of Liberal Arts and Social Sciences, the College of Fine and Performing Arts, and the Warren P. Williamson, Jr. School of Business.

Certificate Description

This four-course certificate (12 semester hours) is designed to provide students with an interdisciplinary overview of the history and political and cultural meanings of working-class life. Program emphasis is on concepts of class, work, and identity, as well as strategies from multiple disciplines for gaining insight into working-class culture. For graduate students and working professionals, this program will provide an in-depth look at local history, local working-class culture, and the lives and experiences of local working people. For educators at middle and high school levels, this program will enhance their teaching careers by increasing their knowledge about working-class culture, issues, and pedagogy while satisfying certain professional development requirements of local school districts. Frequency of course offerings allows most students to finish the certificate within one year.

Certificate Requirements

Students must complete four courses selected from the following:

AMER 5850	Class and Culture	3 s.h.
AMER 6910	Introduction to Working-Class Studies	3 s.h.
AMER 6970	Teaching Working-Class Studies	3 s.h.
ENGL 6923	Working-Class Literature	3 s.h.
HIST 6939	Labor History	3 s.h.
HIST 6945	Preservation and Interpretation of the Industrial Built Environment	3 s.h.
MGT 5845	Work in America	3 s.h.

Students may also petition to have one relevant topics course in English, history, or management count toward the certificate. Students may complete the certificate as a stand-alone program or in conjunction with a master's degree in American studies, business, English, historic preservation, or history. Students taking the certificate as part of a master's program may count two of the four certificate courses toward the master's degree. To complete the certificate, the remaining two courses must be taken as additional credits.

Cooperative Programs

Early Placement Programs for Doctorate Degrees in Engineering

Early placement programs for the Ph.D. degree in engineering at The University of Akron and the Doctor of Engineering degree in engineering at Cleveland State University are available to qualified students. These opportunities allow students to begin their doctoral study at YSU. Graduate students who are interested in any of these programs must have completed their M.S. degree program with thesis option at Youngstown State University or elsewhere. Students accepted in either program are required to complete a minimum of 60 semester hours beyond the M.S. degree. Additionally, students enrolled in either program must complete up to 12 semester hours of coursework and 12 semester hours of dissertation work at Youngstown State University. Students may select a co-advisor from the engineering faculty at Youngstown State University. For further assistance regarding these options and to initiate a letter of interest, contact the College of Science, Technology, Engineering, and Mathematics.

Master of Public Administration (M.P.A.)
Maxine Goodman Levin College of Urban Affairs
Cleveland State University

Youngstown State University, in collaboration with Cleveland State University (CSU), facilitates the delivery of the CSU master's degree program in public administration (M.P.A.). Courses in the M.P.A. program are taught by faculty from both universities; some are offered through CSU at YSU by distance learning, with others taught traditionally at YSU. The purpose of this interdisciplinary program is to prepare its graduates for administrative positions in government, nonprofit, and public service organizations and to provide further educational opportunities for incumbent public administrators. The program provides a broad educational base as well as specific administrative techniques as preparation for positions carrying additional administrative responsibility. Students interested in this program should contact the Office of Graduate Admissions, Cleveland State University at (216) 687-5599. On the YSU campus, information about this program is available from Dr. Tammy King in the Department of Criminal Justice, at (330) 941-3279.

Graduate Courses

Accounting and Finance

Joseph Antenucci, Chair
607 Williamson Hall
(330) 941-3590
jwantenucci@ysu.edu

Accounting

5814 Federal Taxation II. (3 s.h.)
5820 Government and Funds Accounting. (3 s.h.)

6902 Management Accounting Systems. Study of the managerial aspects of accounting. Emphasis on the preparation and interpretation of accounting reports of an organization for its internal users, such as its president and managers. Uses of relevant and timely accounting information in decision making, planning and control, capital budgeting, product costing and pricing, and transfer pricing are discussed in detail. Applications of quantitative techniques and behavioral aspects of accounting are reviewed. Not available for credit to M.B.A. students in the accounting concentration. Prereq.: Completion of all level I M.B.A. coursework. 3 s.h.

6905 Business Tax Planning and Research I. A study of the tax planning process and how it relates to employee and employer matters including, but not limited to, the alternative minimum tax, personal holding companies, unreasonable accumulations of earnings, depreciation recapture, retirement structuring, tax credits, taxation of international persons, and estate tax issues, including both lifetime and testamentary transfers. Paper and electronic research media will be utilized along with various formats for presentation of results. Prereq.: ACCT 4814 Federal Taxation II or equivalent. 3 s.h.

6906 Estate Planning. A study of the tax implications involving estates. 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 emphasized. Prereq.: ACCT 4813 Federal Taxation I or equivalent. 2 s.h.

6908 Auditing Theory and Practice. A study of auditing standards and procedures, use of statistical and other quantitative techniques, and auditing electronic data processing installations. Other topics include practice before the Securities and Exchange Commission, special reporting problems, current developments in auditing, professional ethics and responsibilities, and extensions of the attest function. Prereq.: ACCT 4808 Auditing or equivalent. 3 s.h.

6909 Management Information and Control Systems. A study of the formalized set of interrelated methods, procedures, and equipment utilized in developing, processing, storing, and reporting business financial and statistical information. The major emphasis is on computerized systems, although some attention is also given to manual operations and/or subsystems. Prereq.: MGMT 6900 and FIN 6900 or equivalent. 3 s.h.

6910 Business Internship. Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective M.B.A. course. Prereq.: Completion of level I M.B.A. coursework and six semester hours of level II M.B.A. coursework. 1–3 s.h.

6912 Advanced Management and Cost Accounting. An examination of the managerial uses of accounting information for planning and control, and an investigation of cost accounting theory and practice. Prereq.: ACCT 3711 Cost Accounting or equivalent. 3 s.h.

6930 Accounting Theory. A survey of the history and development of accounting conventions, concepts, and principles leading to an intensive study of contemporary thought relative to income determination and asset valuation. Prereq.: ACCT 3702 Intermediate Accounting II or equivalent. 3 s.h.

6960 Seminar in Accounting. Specific topics selected by the staff from timely and controversial work published in the field. Prereq.: All core courses, plus at least six hours (6900-level) in accounting or permission of instructor. 2 s.h.

6968 Special Topics in Accounting. Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated. 1–3 s.h.

6975 Business Tax Planning II. This course continues the study of income tax laws concerning corporations generally, including Subchapter S corporations, corporate reorganizations, partnership taxation, and tax administration and practice. Prereq.: ACCT 6905. 2 s.h.

6980 Governmental and Nonprofit Accounting. A study of accounting systems for federal, state, and local governmental agencies and other not-for-profit organizations. (Not available for credit to students who have had ACCT 4820.) Prereq.: FIN 6900 Government and Funds Accounting or equivalent. 2 s.h.

6996 Research Problems. Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project. Prereq.: Fifteen hours of level II M.B.A. coursework or permission of M.B.A. director. 1–3 s.h.

Finance

6900 Financial Accounting and Finance for Decision Making. A survey of the fundamental concepts of financial accounting employed by general managers. Additionally, a survey of the concepts, principles, and practices of financial management used by general managers and the links between the two types of information. Permit required. 4 s.h.

6910 Business Internship. Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective M.B.A. course. Prereq.: Completion of level I M.B.A. coursework and six semester hours of level II M.B.A. coursework. 1–3 s.h.

6920 Global Business Environments and Operations. The environments and operating issues affecting firms doing business in the global arena are covered. Economic, cultural, political, legal, and competitive environments are covered, along with the global management of functional areas including finance, marketing, operations, and human resources. Cross-listed as MGMT 6920 and MKTG 6920. Prereq.: Completion of all level I M.B.A. coursework, MGT 6921, MKTG 6942, FIN 6921. 3 s.h.

6921 Financial Management. A study of business finance through the use of case study analysis, including relevant articles and text material. Major topics deal with working capital management, net present value—internal rate of return, lease versus buy, and the cost of capital. Case analysis is used to integrate financial theory into an applied managerial decision-making context. Prereq.: ACCT/FIN 6900 or equivalent. 3 s.h.

6922 Capital Management. Managerial economics of capital budgeting, sourcing, rationing, and control for large enterprises; forecasting demand and internal generation of capital; intangible capital investments; administration of capital appropriations; public policy implications. Prereq.: FIN 6921, MGMT 6916, or permission of instructor. 3 s.h.

6924 Securities Analysis. The major emphasis will be an in-depth, fundamental analysis of the investment merits of the common stock of a firm. This study will be accomplished by applying the appropriate analytical principles and valuation techniques to the firm's financial statements. A research paper will be required. Prereq.: FIN 6921. 3 s.h.

6936 Financial Markets and Institutions. An in-depth study of functions of financial markets, role of financial institutions, and the impact of government regulation with emphasis on nature and functions of global aspects of financial markets; management of financial intermediaries; innovative financial services and products; and impact of public policies and regulations. Prereq.: FIN 6921. 3 s.h.

6939 Multinational Accounting and Finance. A cross-functional examination of selected topics in international accounting and finance with emphasis on developing research and problem-solving skills. Cases will be presented that teach the strategy and tactics of multinational corporate reporting and financial management. Prereq.: FIN 6921. 3 s.h.

6953 Advanced Financial Analysis. Applications of financial analysis to business consulting. Includes case studies and practical implementation strategies. Prereq.: FIN 6921. 3 s.h.

6968 Special Topics in Finance. Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated. 1–3 s.h.

6970 Seminar in Finance. Specific topics selected by the staff from timely and controversial work published in the field. Prereq.: All core courses, plus at least six hours (6900-level) in the finance concentration, or permission of instructor. 3 s.h.

6996 Research Problems. Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project. Prereq.: Fifteen hours of level II M.B.A. coursework or permission of M.B.A. director. 1–3 s.h.

American Studies

Stephanie Tingley, Program Director
245 DeBartolo Hall
(330) 941-2482
satingley@ysu.edu

5845 Work in America. (3 s.h.)
5850 Class and Culture. (3 s.h.)

6900 Approaches to American Studies. Introduction to American studies with emphasis on history of the field, interdisciplinary approaches, and cultural diversity. 3 s.h.

6910 Introduction to Working-Class Studies. 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. 3 s.h.

6930 Humanities in the Community. 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. 3 s.h.

6970 Teaching Working-Class Studies. Interdisciplinary teaching strategies focused on incorporating attention to work, class, diversity, and local history and culture into K–12 and college courses. 3 s.h.

6975 Interdisciplinary Teaching. Introduction to interdisciplinarity and its application in the classroom with emphasis on integration of humanities and social sciences. 3 s.h.

6980 Public Humanities Internship. 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. 3 s.h.

6982 Special Topics. Specialized topics selected by the staff. May be repeated once with a different topic. Prereq.: Permission of the American studies program coordinator and instructor. 3 s.h.

6985 Independent Study. 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. 3 s.h.

6990 Independent Project. Completion of individual project in a community or school setting. Prereq.: Proposal and review meeting with committee. May be repeated for a maximum of three semester hours. 1–3 s.h.

Art

Stephanie Smith, Chair
1009 Bliss Hall
(330) 941-1547
slsmith@cc.ysu.edu

Students who wish to take the 6900-level courses in painting, ceramics, sculpture, or photography must first submit a series of slides and a statement of purpose to the studio faculty for review and approval.

5850 Topics in Painting and Drawing. (3 s.h.)
5860 Topics in Design. (3 s.h.)
5873 Topics in Advanced Photography. (3 s.h.)
5881 Twentieth-Century Art to 1960. (3 s.h.)
5882 Twentieth-Century Art from 1960. (3 s.h.)

6910 Studio Problems in Sculpture. Individual research of plastic form through various media, including plastics, wood, stone, metals, and related materials. May be repeated for a maximum of six semester hours credit. Prereq.: Permission of instructor and documentation of previous work. 3 s.h.

6911 Studio Problems in Sculpture. Continuation of ART 6910. May be repeated for a maximum of six semester hours credit. Prereq.: ART 6910. 3 s.h.

6912 Studio Problems in Sculpture. Continuation of ART 6911. May be repeated for a maximum of six semester hours credit. Prereq.: ART 6911. 1–3 s.h.

6920 Historical and Philosophical Foundations of Art Education. Evaluation of the historical, chronological, and philosophical developments in art education with emphasis on significant trends and movements which have impacted its growth and structure. Prereq.: Graduate status. 3 s.h.

6921 Current Issues, Perspectives, and Curriculum Practices in Art Education. A survey of current issues and legislative mandates that affect art education curriculum. Students will gain insight into curriculum development, implementation, and evaluation of art education programs. Prereq.: Graduate status. 3 s.h.

6922 Graduate Seminar in Art Education. Explores contemporary events, theories, issues, trends, and practices that are influencing the field of art education. Repeatable for 2 total semester hours. Prereq.: Graduate status. 1 s.h.

6923 Graduate Art Thesis. Students will develop a thesis in one of three modes: scholarly thesis, studio inquiry and essay, or teaching project and report. Repeatable for up to 5 total semester hours. Prereq.: Graduate status. 1-5 s.h.

6930 Studio Problems in Ceramics. Individual research in spatial arts imagery. Concentration on individual study in ceramic construction, firing process and calculation, formulation and firing of clay bodies, and low-fire and high-fire glaze systems. May be repeated for a maximum of six semester hours of credit. Prereq.: Permission of instructor and evidence of previous work. 3 s.h.

6931 Studio Problems in Ceramics. Continuation of ART 6930. May be repeated for a maximum of six semester hours of credit. Prereq.: ART 6930. 3 s.h.

6932 Studio Problems in Ceramics. Continuation of ART 6931. May be repeated for a maximum of six semester hours of credit. Prereq.: ART 6931. 1–3 s.h.

6940 Studio Problems in Printmaking. Individual research into monoprinting, intaglio etching, relief printing, silkscreen, lithography, and monotype. May be repeated for a maximum of six semester hours. Prereq.: Portfolio presentation and permission of instructor. 3 s.h.

6941 Studio Problems in Printmaking. Continuation of ART 6940. May be repeated for a maximum of six semester hours. Prereq.: ART 6940. 1–3 s.h.

6942 Studio Problems in Printmaking. Continuation of ART 6941. May be repeated for a maximum of six semester hours. Prereq.: ART 6941. 1–3 s.h.

6950 Studio Problems in Painting. Individual research of two-dimensional form through various media, including oil, acrylic, watercolor, collage, etc. May be repeated for a maximum of six semester hours credit. Prereq.: Permission of instructor and evidence of previous work. 3 s.h.

6951 Studio Problems in Painting. Continuation of ART 6950. May be repeated for a maximum of six semester hours credit. Prereq.: ART 6950. 3 s.h.

6952 Studio Problems in Painting. Continuation of 6951. May be repeated for a maximum of six semester hours credit. Prereq.: ART 6951. 1–3 s.h.

Biological Sciences

Robert E. Leipheimer, Chair
4037 Ward Beecher Hall
(330) 941-3601
releipheimer@ysu.edu

5804 Aquatic Biology. (3 s.h.)
5806 Field Ecology. (4 s.h.)
5809 Concepts of Developmental Biology. (3 s.h.)
5811 Ornithology. (4 s.h.)
5823 Advanced Eukaryotic Genetics. (3 s.h.)
5824 Behavioral Neuroscience. (4 s.h.)
5827 Gene Manipulation. (2 s.h.)
5832 Principles of Neurobiology. (4 s.h.)
5833 Mammalian Endocrinology. (3 s.h.).
5834 Advanced Systems Physiology I. (4 s.h.)
5835 Advanced Systems Physiology II. (4 s.h.)
5836 Cell Biology: Molecular Mechanisms. (4 s.h.)
5840 Advanced Microbiology. (3 s.h.)
5844 Physiology of Reproduction. (3 s.h.)
5853 Biometry. (3 s.h.)
5861 Animal Behavior. (3 s.h.)
5868 Gross Anatomy I. (4 s.h.)
5869 Gross Anatomy II. (4 s.h.)
5888 Environmental Biotechnology. (4 s.h.)
5980 Workshop on Experimental Biology in the Classroom. (2–3 s.h.)

6929/6929L Functional Neuroanatomy. An examination of the structure, function, integration, and cellular control of the brain and spinal cord. Three hours lecture, two hours lab. Students who have enrolled in BIOL 4929 will not receive credit for this course. Prereq.: BIOL 3730 or equivalent. 4 s.h.

6940 Microbial Physiology. This course will present advanced topics in biomolecule synthesis, molecular biology, bacterial genetics, gene expression, energy production photosynthesis, bacteriophages, and microbial stress response. An integrative laboratory project emphasizing some of these topics will be included. Three hours lecture and three hours laboratory. Prereq.: Graduate standing. 4 s.h.

6948 Biology of Fungi. Examination of fungal and fungal-like organisms with emphasis placed upon their taxonomy, phylogenetic relationships, structure, function, physiology, genetics, and ecology. Their role in agriculture, medicine, and scientific research is explored as well. Three hours lecture and three hours laboratory. Prereq.: BIOL 3702 Microbiology and graduate standing. 4 s.h.

6949 Cellular and Molecular Mycology. Specific cellular and molecular processes in fungal organisms will be examined in great detail. Topic areas include morphogenesis, dimorphism, signal transduction, gene expression and regulation, cellular differentiation, nutritional physiology, primary and secondary metabolism, and host/parasite interactions. Prereq.: BIOL 3702 or equivalent, and graduate standing. 3 s.h.

6950 Comparative Animal Physiology. The study of physiological mechanisms and adaptations

of animals to environmental stresses of their habitats. Three hours lecture and three hours laboratory per week. Prereq.: BIOL 3730 Human Physiology or equivalent. 4 s.h.

6951 Developmental and Comparative Neurobiology. The study of processes critical to the development, maintenance, and function of the nervous system. Topics will be presented from an experimental perspective using the scientific literature as a resource. Prereq.: BIOL 3730 Human Physiology or equivalent. 3 s.h.

6952 Experimental Design. Controlling variables, experimental design, and treatment of data from biological experiments. Prereq.: BIOL 5853 or permission of instructor. 3 s.h.

6954 Advanced Ecology. Interrelationships of species within the community and their influence upon the ecosystem. Prereq.: Permission of instructor. 3 s.h.

6957 Advanced Immunology. Fundamentals of immunological systems, including both humoral and cellular immunological responses. Immune response to infections, transplantation rejection, autoimmune diseases, allergy, and autoimmunity. Three hours of lecture a week. Prereq.: BIOL 3702 Microbiology or equivalent. 3 s.h.

6957L Advanced Immunology Laboratory. Immunologic laboratory techniques. Four hours of laboratory a week. Should be taken concurrently with BIOL 6957. 2 s.h.

6959 Analytical Cell Biology. Analytical concepts are applied to the study of cells and cellular processes. The use of microscopic techniques, including microtechniques, fluorescent microscopic analysis, and immunocytochemistry, are presented. Qualitative and quantitative analysis of macromolecular composition is used in answering contemporary questions in cell biology. Prereq.: Graduate standing. 4 s.h.

6962 Systematic Zoology. Principles, significance, and procedure of zoological taxonomy. Prereq.: BIOL 3741 Animal Diversity. 2 s.h.

6963 Virology. Viral structure, replication, infection, and pathogesis. The molecular biology of viruses and their interactions with host cells, and the use of viruses as tools for gene therapy and genetic engineering. Current research and viruses important in world health, such as HIV, will be emphasized. Prereq.: Graduate standing or permission of instructor. 3 s.h.

6964 Advanced Molecular Genetics. An examination of the mechanisms of transcription, translation, DNA replication, and RNA processing and transposition in both prokaryotes and eukaryotes. Prereq.: BIOL 4890 Molecular Genetics or permission of instructor. 3 s.h.

6965 Principles of Electron Microscopy. Theories and application of both transmission and scanning of electron microscopy are presented. Students develop proficiency in the use of the scanning electron microscope, including standard preparative techniques and their use in research. Prereq.: Graduate standing or permission of instructor. 2 s.h.

6966 Protein Analysis. Students will gain experience in the analysis of proteins. Protein structure and function relationships are discussed in the context of their relevance in analytical techniques. Methods presented and used in class include protein quantification, two-dimensional gel electrophoresis, liquid chromatography, gel image analysis, and amino acid analysis. Two hours lecture and four hours laboratory. Prereq.: BIOL 5836 or equivalent, and graduate standing. 4 s.h.

6971 The Teaching and Learning of Biology. An introduction to the current literature and

research problems in the teaching and learning of biology. Topics include theories of teaching; learning styles; assessment; problem solving; misconceptions; and the role of laboratories, recitations, and demonstrations in learning biology. Also includes examination of these issues as related to teaching chemistry. Cross-listed with CHEM 6971. 3 s.h.

6972 Methods of Biology Education Research. Principles of biology education research. Issues of problem design, data collection, and data analysis are considered from both quantitative and qualitative frameworks. Methodologies include surveys and questionnaires, think-aloud protocols, interviews, observations, and action research. Also includes examination of these issues as related to chemistry. Cross-listed with CHEM 6972. 3 s.h.

6973 Biology and National Science Education Standards. Implications of national standards for modifying high school biology instruction in a variety of classroom situations. Topics include inquiry learning, science and technology literacy, the history and nature of science, preservice science teacher education, assessment, and the impact of standards on advanced placement biology. Also includes examination of these issues as related to teaching high school chemistry. Cross-listed with CHEM 6973. 3 s.h.

6974 Neuroendocrinology. Current concepts of neuroendocrine processes will be discussed. Prereq.: BIOL 5833 or equivalent, or permission of instructor. 3 s.h.

6975 Neuropharmacology. An examination of how drugs interact with the nervous system, including the locus of action for neuroactive substances and the mechanisms by which these substances cause change in physiology and behavior. Prereq.: Graduate standing or permission of instructor. 3 s.h.

6976 Cellular Neurophysiology. Detailed study of ionic currents, regulation of neuronal firing patterns, synaptic transmission, and synaptic plasticity. Prereq.: BIOL 5832 or permission of instructor. 3 s.h.

6978 Teaching Practicum I: Principles of Biology. A course dealing with principles of pedagogy for both classroom and laboratory settings. This is a broad-based course, which will address basic principles and concepts of modern biology. Emphasis is on relationships between instruction and learning outcomes. Required of all graduate teaching assistants in the Biological Sciences. Students will be assigned a grade of S/U. May be repeated. 1 s.h.

6979 Teaching Practicum: 1545 Anatomy and Physiology. A course dealing with the principles of pedagogy for BIOL 1545 Allied Health Anatomy and Physiology. This course addresses classroom and laboratory topics in human anatomy and physiology, with an emphasis on the relationships between instruction and learning outcomes. Required of graduate teaching assistants providing instructional support for BIOL 1545. Students will be assigned a grade of S/U. May be repeated. 1 s.h.

6980 Workshop on Experimental Biology in the Classroom. Problems, issues, and practice of experimental biology in the K–12 classroom. Students will learn to identify teaching strategies appropriate to curricular objectives, develop effective science activities, and organize and manage lab activities in the classroom. May be repeated. 2–3 s.h.

6981 Teaching Practicum: 1551 Anatomy and Physiology I. A course dealing with the principles of pedagogy for BIOL 1551 Anatomy and Physiology I. This course addresses classroom and laboratory topics in human anatomy and physiology with an emphasis on the relationships between instruction and learning outcomes. Required of graduate teaching assistants providing

instructional support for BIOL 1551. Students will be assigned a grade of S/U. May be repeated. 1 s.h.

6982 Teaching Practicum: 1552 Anatomy and Physiology II. A course dealing with the principles of pedagogy for BIOL 1552 Anatomy and Physiology II. This course addresses classroom and laboratory topics in human anatomy and physiology with an emphasis on the relationships between instruction and learning outcomes. Required of graduate teaching assistants providing instructional support for BIOL 1552. Students will be assigned a grade of S/U. May be repeated. 1 s.h.

6988 Seminar in Biological Sciences. May be repeated up to two semester hours. 1 s.h.

6989 Graduate Research Experience. Independent study for graduate students wishing to learn specific biological research techniques. Applicable only to biology graduate students following the nonthesis or biology education options. May be repeated for up to a total of three semester hours. Prereq.: Permission of instructor or department chair. 1–3 s.h.

6990 Master's Thesis Research. Research selected and supervised by departmental advisor and approved by graduate faculty of Biology Department and graduate dean. Prereq.: Acceptance by departmental committee. May be repeated for a maximum of six semester hours. 1–6 s.h.

6991 Research Methods in Ecology. Discussion and demonstration of current methods and concepts related to field or laboratory research for beginning graduate students in the field of ecology. Not applicable for students enrolled in the nonthesis or biology education options. Prereq.: Permission of instructor. May be repeated once. 3 s.h.

6992 Research Methods in Anatomy and Physiology. Discussion and demonstrations of current methods and concepts related to laboratory research for beginning graduate students in the fields of anatomy and physiology. Not applicable for students enrolled in the nonthesis or biology education options. Prereq.: Permission of instructor. May be repeated once. 3 s.h.

6993 Research Methods in Molecular Biology. Discussion and demonstrations of current methods and concepts related to laboratory research for beginning graduate students in the fields of molecular biology, cellular biology, or microbiology. Not applicable for students enrolled in the nonthesis or biology education options. Prereq.: Permission of instructor. May be repeated once. 3 s.h.

6994 Research Methods in Biology. A course focused on reviewing current biological concepts as reported in the scientific literature. Not applicable for students enrolled in the thesis or biology education options. Prereq.: Permission of instructor. 2 s.h.

6995 Research in Biological Education. Current methods, concepts, and applications of biological principles related to the field of biological education will be discussed. Not applicable for students enrolled in the thesis or nonthesis options. Prereq.: Permission of instructor. May be repeated once. 2 s.h.

6996 Topics in Environmental and Biological Interactions. An arranged course in terrestrial and aquatic ecology. Prereq.: Permission of instructor. 1 s.h.

6997 Topics in Molecular and Cellular Biology. An arranged course in subjects at the molecular level of life. Prereq.: Permission of instructor. 1 s.h.

6998 Topics in Physiology. An arranged course for advanced topics in vertebrate physiology.

Prereq.: Permission of instructor. 1 s.h.

7000 Topics in Clinical and Environmental Microbiology. An arranged course on subjects of microbiology. Prereq.: Permission of instructor. 1 s.h.

7010 Techniques in Animal Tissue Culture. Procedures for in vitro culture of cells, including preparation of culture media and maintenance of primary and secondary cultures. Preparation of and cloning of hybridomas. Purification of monoclonal antibodies. One hour of lecture a week and four hours of laboratory. Prereq.: BIOL 3702 Microbiology or equivalent. 3 s.h.

Chemical Engineering

Douglas M. Price, Option Coordinator
2068 Moser Hall
(330) 941-3019
dmprice@ysu.edu

5800 Special Topics. (1–4 s.h.)
5805 Principles of Biomedical Engineering. (3 s.h.)
5810 The Business of Engineering. (3 s.h.)
5811 Advanced Transport Phenomena. (3 s.h.)
5820 Industrial Pollution Control. (3 s.h.)
5821 Fundamentals of Polymer Science. (3 s.h.)
5830 Nuclear Reactors. (3 s.h.)
5835 Introduction to Nuclear Fusion. (3 s.h.)
5850 Industrial Processes. (3 s.h.)
5883 Mathematical Methods in Chemical Engineering. (3 s.h.)
5886 Nuclear Reactor Design. (3 s.h.)

6983 Modern Power Sources. Analytical and descriptive study of modern power plants. Combustion and environmental problems with fossil-fueled power plants. Electromagnetic circuits and devices with emphasis on the principles of electromechanical energy conversions. 3 s.h.

6984 Nuclear Fission and Fusion Power Sources. Energy available from fission and fusion nuclear reactions, on setting and maintaining chain reaction. Mechanical and electromagnetic confinement techniques. Reactor design, heat removal, and safety problems. 3 s.h.

6985 Electromechanical Motion Devices. Thermodynamics of batteries, and electric and fuel cells. Power from nuclear isotopes. Features common to rotating electromagnetic fields. Analysis and design of electromechanical power components. 3 s.h.

6990 Thesis. Research selected and supervised by departmental advisor. Prereq.: Acceptance by departmental committee. May be repeated for a maximum of nine semester hours. 1–9 s.h.

Chemistry

Daryl W. Mincey, Chair
5053 Ward Beecher Hall
(330) 941-3663
dwmincey@cc.ysu.edu

5804 Chemical Instrumentation. (4 s.h.)
5821 Intermediate Organic Chemistry. (3 s.h.)

5822 Advanced Organic Laboratory. (4 s.h.)
5830 Intermediate Inorganic Chemistry. (2 s.h.)
5831 Inorganic Chemistry Laboratory. (2 s.h.)
5832 Solid-State Structural Methods. (3 s.h.)
5836 Quantum Chemistry. (3 s.h.)
5861 Polymer Science I: Polymer Chemistry and Plastics. (4 s.h.)
5862 Polymer Science II: Polymer Rheology, Processing, and Composites. (3 s.h.)
5876 Enzyme Analysis. (2 s.h.)

6911 Advanced Analytical Chemistry I. Theory and applications of spectroscopy and theory of chemical separation methods. Prereq.: CHEM 3739 Physical Chemistry I. 3 s.h.

6912 Advanced Analytical Chemistry II. Applications of chemical separation methods and theory and applications of electrochemistry and electrochemical techniques. Prereq.: CHEM 3739 Physical Chemistry. 3 s.h.

6921 Advanced Biochemistry I. Protein structure and intermediary metabolism. Prereq.: CHEM 3720 Organic Chemistry II, or concurrently with CHEM 3737 Biophysical Chemistry or CHEM 3739 Physical Chemistry I. 3 s.h.

6922 Advanced Biochemistry II. A study of metabolic pathways and other biochemical systems at the molecular level. Prereq.: CHEM 6921. 3 s.h.

6931 Advanced Inorganic Chemistry I. Current theories and types of bonding. Modern structural principles with applications in main-group molecular compounds, coordination compounds, and inorganic solids. Prereq.: CHEM 3729 Inorganic Chemistry. 3 s.h.

6932 Advanced Inorganic Chemistry II. Transtition metal organometallic chemistry emphasizing molecular structure, bonding methods, characterization, and functional group reactivity. The properties, chemical reactivity, and trends of the elements. Prereq.: CHEM 5830, 6931, or permission of instructor. 3 s.h.

6933 Physical Methods in Structure Determination. The determination of molecular-level structures of biological, organic, and inorganic compounds in the gas phase, solution, and solid state by diffraction and spectroscopic methods, especially X-ray crystallography and NMR spectroscopy. Three hours lecture. Prereq.: CHEM 5822, 5832, or permission of instructor. 3 s.h.

6941 Advanced Organic Chemistry I. Principles of chemical bonding and structure in organic molecules, physical organic chemistry, structure of reactive intermediates, stereochemistry, and detailed descriptions of reaction mechanisms. Prereq.: CHEM 3721 Genetics and CHEM 3740 Physical Chemistry II. 3 s.h.

6942 Advanced Organic Chemistry II. Detailed study of functional group transformations in organic synthesis as applied to the preparation of complex molecules. Carbon-carbon bond forming reactions, organometallic reagants in organic synthesis, oxidation-reduction chemistry, and multi-step synthesis. Prereq.: CHEM 6941. 3 s.h.

6951 Advanced Physical Chemistry I. Principles of quantum chemistry and spectroscopy with applications. 3 s.h.

6952 Advanced Physical Chemistry II. Molecular basis of thermodynamics and kinetics. 3 s.h.

6963 Advanced Polymer Science. Advanced methods of polymer synthesis and characterization, high performance polymers, polymerization kinetics and mechanisms, polymer processing, materials optimization, and high performance applications. Three hours lecture. Prereq.: CHEM 3740 Physical Chemistry II and CHEM 5861, or permission of the instructor. 3 s.h.

6969 Laboratory Problems. A laboratory course that stresses individual effort in solving chemical problems. Recommended for high school chemistry teachers. Not applicable to the M.S. degree in chemistry. Prereq.: An undergraduate minor in chemistry. May be repeated up to six semester hours. 2 s.h.

6971 The Teaching and Learning of Chemistry. An introduction to the current literature and research problems in the teaching and learning of chemistry. Topics include theories of teaching, learning styles, assessment, problem solving, misconceptions, and the role of laboratories, recitations, and demonstrations in learning chemistry. Also includes examination of these issues as related to teaching biology. Cross-listed with BIOL 6971. 3 s.h.

6972 Methods of Chemistry Education Research. Principles of chemistry education research. Issues of problem design, data collection, and data analysis are considered from both quantitative and qualitative frameworks. Methodologies include surveys and questionnaires, think-along protocols, interviews, observations, and action research. Also includes examination of these issues as related to biology. Cross-listed with BIOL 6972. 3 s.h.

6973 Chemistry and National Science Education Standards. Implications of national standards for modifying high school chemistry instruction in a variety of classroom situations. Topics include inquiry learning, science and technology literacy, the history and nature of science, preservice science teacher education, assessment, and the impact of standards on advanced placement chemistry. Also includes examination of these issues as related to teaching high school biology. Cross-listed with BIOL 6973. 3 s.h.

6975 An Introduction to Teaching Chemistry. A course to prepare graduate students to serve as teaching assistants in both chemistry laboratories and recitations. Topics include laboratory safety (governmental regulations, ACS guidelines, hazardous materials, waste disposal) and practical matters of teaching (active learning, leading discussions, grading, cheating, etc.). Required of all graduate students serving as first-year teaching assistants. 1 s.h.

6976 Teaching Practicum in General Chemistry. Teaching strategies in the General Chemistry laboratory. Students will meet with General Chemistry course instructors and must demonstrate proficiency in the material to be presented in CHEM 1515 General Chemistry I and 1516 General Chemistry II laboratories. Grading for CHEM 6976 is S/U. Prereq. or concurrent: CHEM 6975. May be repeated for a total of six semester hours for CHEM 6976, 6977, 6978, and 6979. 2 s.h.

6977 Teaching Practicum in Allied Health Chemistry. Teaching strategies in the Allied Health Chemistry laboratory. Students will meet with Allied Health Chemistry course instructors and must demonstrate proficiency in the material to be presented in CHEM 1505 Allied Health Chemistry I and 1506 Allied Health Chemistry II laboratories. Grading for CHEM 6977 is S/U. CHEM 6977, 6978, and 6979. Prereq. or concurrent: CHEM 6975. May be repeated for a total of six semester hours for CHEM 6976. 2 s.h.

6978 Teaching Practicum in Organic Chemistry. Teaching strategies in the organic chemistry laboratory. Students will meet with organic chemistry course instructors and must demonstrate proficiency in the material to be presented in CHEM 3719 Organic Chemistry I and 3720 Organic Chemistry II laboratories. Grading for CHEM 6978 is S/U. Prereq. or concurrent: CHEM 6975.

May be repeated for a total of six semester hours for CHEM 6976, 6977, 6978, and 6979. 2 s.h.

6979 Teaching Practicum for Explorations in the Sciences (Chemistry). Teaching strategies in the chemistry segments of Explorations in the Sciences. Students will meet with course coordinator and must demonstrate proficiency in the material to be presented in A&S 2600 Explorations in the Sciences laboratories. Grading for CHEM 6979 is S/U. Prereq. or concurrent: CHEM 6975. May be repeated for a total of six semester hours for CHEM 6976, 6977, 6978, and 6979. 2 s.h.

6980 Introduction to Chemical Research. Principles of chemical research planning, design, execution, and reporting. Includes research proposals, record keeping, written reports, oral presentations, the reviewing process, and professional standards. The application of the principles of chemical research to the student's M.S. research project. Required of all first-year students in the M.S. program in chemistry. 3 s.h.

6981 Seminar I. Preparation of a formal written research proposal and oral presentation of the proposal. Under the guidance of a research supervisor, the student will investigate the background literature and rationale for a project. Required of all first-year students in the M.S. program in chemistry. Hours arranged. Prereq.: CHEM 6980 and permission of the Chemistry chair. 1 s.h.

6982 Seminar II. Oral presentation and defense of thesis. Hours arranged. Prereq.: CHEM 6981 and permission of the thesis advisor, or concurrently with six semester hours of CHEM 6990. 1 s.h.

6985 Fundamental Chemistry for Educators. Fundamentals of general, organic, and biological chemistry including application to the teaching of science. Two hours lecture, three hours laboratory/discussion. Not applicable to the M.S. degree in chemistry. Prereq.: Admission to the graduate program or permission of instructor. 3 s.h.

6989 Special Topics in Chemistry Practicum. Topics selected by the faculty from fields of current research, pedagogical interest, or special emphasis. S/U grading option. May be repeated with different topics. 1–3 s.h.

6990 Thesis. Hours arranged. May be repeated. 1–9 s.h.

6991 Special Topics. Topics selected by the faculty from fields of current research interest or of special emphasis. May be repeated with different topics. 1–3 s.h.

7000 Topics in Clinical and Environmental Microbiology. An arranged course on subjects of microbiology. Prereq.: Permission of instructor. 1 s.h.

7010 Techniques in Animal Tissue Culture. Procedures for in vitro culture of cells, including preparation of culture media and maintenance of primary and secondary culture. Preparation of and cloning of hybridomas. Purification of monclonal antibodies. One hour of lecture a week and four hours of laboratory. Prereq.: BIOL 3702 Microbiology or equivalent. 3 s.h.

Civil and Environmental Engineering

Scott C. Martin, Option Coordinator
2445 Moser Hall
(330) 941-3026
scmartin@ysu.edu

5820 Pavement Material and Design. (3 s.h.)
5829 Civil Engineering Materials, Concrete. (3 s.h.)
5837 Environmental Engineering Design. (3 s.h.)
5849 Structural Analysis II. (3 s.h.)
5855 Reinforced Concrete Design. (3 s.h.)
5856 Steel Design. (3 s.h.)
5877 Systems Engineering. (3 s.h.)
5882 Foundation Engineering (3 s.h.)
5884 Solid and Hazardous Waste Management. (3 s.h.)

6910 Advanced Strength of Materials. The basic methods of structural mechanics, such as conditions of equilibrium and compatibility, stress-strain relations. General treatment of energy principles including virtual work, minimum potential energy; applications to statically determinate and indeterminate systems such as rings, curved beams, plates, and other elastic systems. 3 s.h.

6920 Wetlands Engineering. Wetland characteristics—soils, hydrology, and vegetation; wetland functions and values; regulations; planning, theory, design and construction of created and constructed wetlands; applications in wetland mitigation, wastewater treatment, and pollution control. Prereq.: CEEN 3736 Fundamentals of Environmental Engineering or equivalent. 3 s.h.

6921 Groundwater and Surface Water Modeling. Mathematical simulation of hydrodynamic processes and pollutant transport in subsurface and surface water environments. Prereq.: CEEN 3716 Fluid Mechanics and CEEN 3736 Fundamentals of Environmental Engineering. 3 s.h.

6941 Structural Mechanics. Study of beams under lateral load; beams with combined lateral load and thrust; buckling beams on elastic foundations; applications of Fourier series and virtual work principles to beam-type structures; stress and strain in three dimensions; applications to flexure of beams and plates and to constrained torsion; elements of engineering theory of plates. 3 s.h.

6947 Finite Element Analysis. An introduction to finite element techniques as applied to problems in structural mechanics. Direct and variational methods of element formulation with application to beams, beam-columns, frames, arches, thin plates, and shells. 3 s.h.

6951 Construction Project Management. An integrated approach to construction project management. Advanced topics of Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM) and its application in construction project scheduling. Resource allocation and leveling, construction cost control, computer simulation of construction operations, and expert systems construction. 3 s.h.

6952 Foundation Engineering. Principles of mechanics of materials applied to foundation problems; stresses and deformations in soils, consolidation theory; shallow and deep foundation design. 3 s.h.

6953 Flow Through Porous Media. Analysis of seepage volume and stresses due to flow of water through soils in connection with dams, slopes, excavations, subsurface drainage, and wells. 3 s.h.

6956 Advanced Soil Mechanics. Development of shear strength theories, Mohr-Coulomb-Hvorslev equation, critical path concept, stability of slopes, lateral earth-pressure theories, development of bearing capacity equations. Prereq.: CEEN 4881 or equivalent. 3 s.h.

6957 Structural Stability. A study of the elastic stability of engineering structures, beam columns, static buckling of elastic beams, frames, plates, and shells, dynamic stability of beams and plates. 3 s.h.

6958 Structural Dynamics. Analysis of the response of structures to air blasts and earthquake motions; development of both the normal mode and frequency response methods in dealing with periodic and nonperiodic excitations. 3 s.h.

6959 Advanced Steel Design. Advanced topics in the structural design of girders, frames, and trusses. Light gauge metal structures. Use of modern alloys and hybrid systems. 3 s.h.

6961 Advanced Concrete Design. Consideration of advanced design techniques for reinforced concrete members and structures such as composite and prestressed concrete beams, box girders, and slabs. 3 s.h.

6965 Special Topics. The application, in civil engineering, of special topics selected by the faculty from fields of current research interest or special emphasis. May be repeated up to six semester hours. 3 s.h.

6967 Biological Treatment Processes. Theory and design of biological processes used in the treatment of municipal and industrial wastewaters, and in the remediation of hazardous wastes. Prereq.: CEEN 3736 Fundamentals of Environmental Engineering. 3 s.h.

6972 Advanced Topics in Environmental Engineering. Advanced concepts related to the transport, reaction, phase distribution, and fate of pollutants in both the natural environment and treatment systems. Prereq.: CEEN 3736 Fundamentals of Environmental Engineering. 3 s.h.

6975 Physical and Chemical Treatment Processes. Theory and design of physical and chemical processes used in the treatment of water supplies, wastewater, and hazardous wastes. Prereq.: CEEN 3736 Fundamentals of Environmental Engineering. 3 s.h.

6976 Design of Small Dams. Flood routing, reservoir engineering. Hydraulic design of small gravity, earth-fill and rock-fill dams, spillways, and energy dissipaters. Prereq.: CEEN 3717 Hydraulic Design and 6977. 3 s.h.

6977 Hydrology. Precipitation; hydrologic abstractions; runoff; urban and small watershed hydrology; frequency analysis; digital simulation. 3 s.h.

6978 Water Resources Planning. The need and demand for water; project formulation; technical, economic, financial, social, environmental, and political considerations; data requirements; multipurpose projects. Prereq.: ISEN 3724 Engineering Economy or equivalent. 3 s.h.

6979 Water Quality Modeling. Mathematical modeling of physical, chemical, and biological processes in natural systems; development of computer models to simulate the fate and transport of pollutants in lakes, streams, and estuaries; application of models to evaluate water resource management options. Prereq.: CEEN 3736 Fundamentals of Environmental Engineering. 3 s.h.

6989 Graduate Projects. Special projects involving research, analysis, design, or other independent investigation, undertaken by the M.S. student under the direction of a graduate faculty member with the approval of the department chair. Credit will be determined in each case based on the nature and extent of the project. 1–3 s.h.

6990 Thesis. Hours arranged. May be repeated. 1–9 s.h.

Communication

Cary Wecht Horvath, Chair
2002 Bliss Hall
(330) 941-3631
clhorvath@ysu.edu

5852 Small Group Communication Theory and Practice. (3 s.h.)
5858 Practicum. (3 s.h.)
5898 Seminar in Speech Communication. (3 s.h.)

6945 Communication for the Classroom Teacher. 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. 3 s.h.

Computer Science and Information Systems

Thomas A. Bodnovich, Chair
339B Meshel Hall
(330) 941-3134
tom@cis.ysu.edu

5801 Software Engineering. (3 s.h.)
5806 Operating Systems. (3 s.h.)
5807 Compiler Design. (3 s.h.)
5814 Computer Architecture. (3 s.h.)
5820 Simulation. (3 s.h.)
5822 Database Design and Information Retrieval. (3 s.h.)
5823 Communication Network Security. (3 s.h.)
5824 Applied Artificial Intelligence. (3 s.h.)
5828 Computer Network Security. (3 s.h.)
5835 Artificial Intelligence. (3 s.h.)
5840 Theory of Finite Automata. (3 s.h.)
5857 Encoding and Encryption. (3 s.h.)
5860 Programming Language Structures. (3 s.h.)
5870 Data Structures and Algorithms. (3 s.h.)
5881 Microcomputer System Architecture. (3 s.h.)
5883 Remote Access and Multilayer Switched Networks. (3 s.h.)
5884 Building Scalable Networks and Advanced Inter-Network Troubleshooting. (4 s.h.)
5895 Special Topics. (2–4 s.h.)

6900 Computing and Information Systems Workshop. Intensive study and activity in a topic related to computing and information systems. May be repeated. Grading is S/U. Prereq.: Permission of graduate coordinator. 1-3 s.h.

6901 Principles of Computer Programming. Significant features of several computer programming languages to fit the needs of graduate students with no previous computer science experience. Programming techniques and problem analysis. Students will do programming projects appropriate for their needs. 3 s.h.

6905 Information Structures. Basic concepts of information: modeling structures, machine level implementation, storage management, programming, language implementation, run-time

structures, sorting, and searching. Prereq.: CSIS 3710 Introduction to Discrete Structures and CSIS 3740, or permission of chair. 3 s.h.

6910 Computer Software Systems. Classes of software systems, system structures, systems operations. Resource management routines. Software design. Prereq.: CSCI 6905 or equivalent. 3 s.h.

6915 Computer Organization and Architecture. Organization and architectural design of the subsystems and major functional units of modern digital computers and their interconnections. Prereq.: CSIS 6905 or equivalent. 3 s.h.

6920 Theory and Practice of Information Systems. A study of the relationship of information systems to individuals, organizations, and society. A detailed study of the principles, methodologies, and issues associated with designing, implementing, and administering information systems as a resource in a networked, data-driven organization. Prereq.: CSIS 3722 Development of Databases and CSIS 3723 Networking Concepts and Administration. 3 s.h.

6921 Strategic Project and Change Planning. Information technology control, including organizational effects through methods, control techniques, and project tools. Cases provide domestic and international experience via initialization, planning, execution, tracking, and risk assessment. Time, reporting, resources, project relevance, organizational impact, and operational consistency are addressed through anticipatory, reactive, and crisis approaches. Prereq.: CSCI 6920. 3 s.h.

6930 Formal Languages and Syntactic Analysis. Study of formal languages, especially context-free languages, and their applications to parsing and syntactic analysis. Prereq.: CSIS 3710 Introduction to Discrete Structures or CSCI 6905. 3 s.h.

6940 Advanced Network Design and Administration. Advanced network design, implementation, and administration. Topics include infrastructure and architecture, VLSM, logical and physical designs, security issues, voice over IP, client/server networks, and VLANs. Prereq.: CSIS 3723 Networking Concepts and Administration or CSIS 3783 Cisco Networking Academy I. 3 s.h.

6950 Advanced Database Design and Administration. Advanced concepts in database design, development, and administration. Database query languages, transactions, and data warehousing. Relational calculus. System analysis; concurrency; backup and recovery, and security issues; advanced models, including distributed, object-oriented, and online databases. Prereq.: CSIS 3722 Development of Databases or equivalent. 3 s.h.

6951 Data Warehousing and Data Mining. Basic methodology for planning, designing, building, using, and managing a data warehouse. Legacy systems, operational data stores, and data marts. Data mining techniques for visualization and deriving information from a data warehouse for strategic decision making. Prereq.: CSIS 3722 Development of Databases. 3 s.h.

6961 Client-Side Web Development and Programming. Design and development of interactive, multimedia webpages. Effective uses of forms, graphics, and animation. Client-side programming tools, such as dynamic HTML, document object model, and JavaScript for graphics and form validation. Storyboarding techniques and user interface design principles. Prereq.: CSIS 2617 Data Structures and Objects or CSCI 6901. 3 s.h.

6962 Server-Side Web Development and Programming. Configuration of web server software

and the use of server-side programming. Server-side scripting in languages such as PHP and JavaServer Pages. Database access and drivers. Security issues, including access control and secured transmissions. Prereq.: CSIS 3722 Development of Databases and either CSIS 2617 Data Structures and Objects or CSCI 6901. 3 s.h.

6990 Computer Science Project. Report and discussion of individual topics or research projects in computer science. Prereq.: Nine semester hours of computer science courses numbered above 5000. 1–3 s.h.

6993 Computing and Information Systems Graduate Internship. An industrial/academic experience in information systems/technology. Employment for 15 to 20 hours per week. Prereq.: CSIS 6920 and permission of graduate internship supervisor. May be repeated once with the permission of graduate internship supervisor. 1–3 s.h.

6995 Special Topics in Computer Science. Special topics in computer science selected by the staff. Prereq.: Permission of chair. 1–4 s.h.

6996 Independent Study. Study under the supervision of a faculty member. Prereq.: Permission of chair. 1–4 s.h.

6999 Thesis. A student may register for six semester hours in one semester or for three semester hours in each of two semesters. 3–6 s.h.

Counseling and Special Education

Margaret Briley, Chair
3305 Beeghly Hall
(330) 941-3257
mlbriley@ysu.edu

Counseling

5821, 5822 Seminar in Guidance and Counseling. (1–3 s.h.)
5821G Life Span Development and Counseling. (3 s.h.)
5825 Group Processes in the School. (2 s.h.)
5879 Consultation with Gifted/Talented Students and Their Families. (3 s.h.)
5888 Introduction to Health and Wellness Counseling. (3 s.h.)
5895 Counseling Workshop. (1–3 s.h.)
5898 Orientation and Ethical Issues in Community Counseling. (3 s.h.)
5967 Guidance and Counseling Workshop. (1–3 s.h.)

6900 Counseling Methods and Practice. Methods and practices of professional counseling relative to relationship, goals, process, and documentation. Relevant ethical guidelines are stressed. Includes experiential skill training. For counseling majors or by permission of Department of Counseling. Prereq. or concurrently: COUN 6962. 3 s.h.

6902 Introduction to Chemical Dependency. Theory and research on chemical dependency and its effects upon the individual and family. 3 s.h.

6903 Chemical Dependency Counseling. Theory and research on chemical dependency with emphasis on assessment and models for treatment and recovery. Prereq.: COUN 6902. 3 s.h.

6961 Orientation and Ethical Issues in School Counseling. This course provides students with

an introduction to the field of professional counseling, and the foundations of school counseling. The course addresses the following topics: history, philosophy, cultural dynamics, advocacy, consultation, technology applications, classroom management issues, and trends in professional and school counseling. The counseling profession's ethical standards are also addressed with an emphasis on the American Counseling Association (ACA) and American School Counselor Association (ASCA) code of ethics, and counselor ethical decision-making processes. 3 s.h.

6962 Counseling Theory. Basic principles of counseling in an educational context. Development of procedural bases for counseling and educationally oriented counseling theory. Ethics and limitations involved in counseling practices. 3 s.h.

6963 Occupational and Educational Information in Guidance. Principles of career development and use of educational and occupational information resources in the guidance program. Lecture and discussion are used to explore occupational structure of the United States, sources of educational and occupational information including community resources, and the collecting, classifying, filing, and organization of educational and occupational information for use in the guidance program. 2 s.h.

6964 Appraisal Techniques in Counseling. Overview of the administration, scoring, and interpretation of standardized tests and measures used in counseling practice with specific focus and supervised practice in the administration and interpretation of standardized ability, interest, intelligence, and aptitude tests. 3 s.h.

6965 Applied Testing in Career Counseling. Administration, scoring, and interpretation of selected assessment tools and their application to career counseling. Prereq.: COUN 6964. 2 s.h.

6968 Research in Counseling. The study and application of quantitative and qualitative research in counseling with statistical application component. 3 s.h.

6969 Administration of Personnel and Guidance Services. A comprehensive study of the dynamic qualities inherent in planning, management, functioning, and structuring of personnel and guidance services in public schools. 2 s.h.

6970 Counseling and Social Services in the Schools. Examines the scope and comprehensive developmental programs for counseling and social services in the schools with consideration of need assessment and development of such programs. 2 s.h.

6971 Human Relations for the Classroom. The course focuses on skill development in human relations. These skills are studied and integrated with cognate skill development in the classroom, classroom planning and organization conflict resolution, and coping with behavior problems and motivation. Application is made to the classroom environment. 2 s.h.

6972 Career Counseling. Theories of vocational choice, vocational success and satisfaction, decision making, and vocational testing. Career counseling as related to the economic and social context. 3 s.h.

6973 Group Counseling Theory and Practice. Theories pertaining to group dynamics, process, interaction, consultation, and counselor intervention. For counseling majors or by permission of Department of Counseling. Prereq. or concurrently: COUN 6962. 2 s.h.

6973L Group Counseling Laboratory. Supervised experience in the use of interventions

appropriate to stages of group development. Emphasis will be placed on promoting self-awareness, interpersonal skills, and group skills and techniques. Laboratory is taken concurrently with COUN 6973. 1 s.h.

6974 Case Studies in School Guidance and Field Experience in Community Social Agencies. Methods of collecting data, synthesis, and interpretation of data about a person and relationship to environment. Real and assumed situations of pupils over an extended period of time are presented for study and analysis. The course includes practical field experience with various community social agencies to acquaint the student with agency services and social casework methods. Particular emphasis is placed on the disadvantaged and exceptional child. 2–4 s.h.

6975 Counselor Consultation and Prevention. This course is a study of the theoretical models of consultation and prevention. Techniques for implementation of consultation and prevention in schools, agencies, and higher education settings will be presented. 3 s.h.

6976 Social and Cultural Issues in Counseling. Counseling theory and techniques related to social and economic change, ethnic groups, subculture, issues of sexuality and gender, urban and rural societies, cultural mores, the use of leisure time, and differing life patterns. For counseling majors or by permission of Department of Counseling. 3 s.h.

6980 Diagnosis of Mental Disorders. *Overview of Diagnostic and Statistical Manual of Mental Disorders,* fourth edition (DSM-IV-TR) format, with emphasis placed on the development of diagnostic skills for the major mental and emotional disorders commonly encountered in social service, educational, and community counseling agencies. 3 s.h.

6982 Educational Leadership in Primary and Intervention Strategies. This course will identify mental health issues that impact individuals, families, and the educational system. Prevention and intervention strategies will be explored, as well as issues and procedures of referral. 2 s.h.

6990 Independent Study. Individual investigation of advanced topics under guidance of selected staff. Permission of instructor required. 1–3 s.h.

6991 Family Systems. Systems theory as applied to family functioning. Major theoretical approaches to family counseling, including ethics and techniques, will be addressed. 3 s.h.

7001 Counseling Practicum I. Supervised individual counseling practice with volunteer clients. Focus upon process, clarification, and resolution of counselee goals and counselor self-awareness/evaluation. Students are required to attend a scheduled orientation in the Community Counseling Clinic prior to the first class. Prereq.: COUN 5898 or 6961, 6900, 6962, 6973 (can be taken concurrently), 6980 (required for community counseling students only). 3 s.h.

7002 Counseling Practicum II. Supervised individual and group counseling practices in settings appropriate to student's programs. Requires field placement of 150 hours. Prereq.: COUN 7001, no PR grades, successful completion of department comprehensive exam, and permission of instructor. 3 s.h.

7003 Counseling Children and Adolescents. Various theories and respective techniques for counseling and psychotherapy with children and adolescents. Research concerning the efficacy of such approaches will also be studied. 3 s.h.

7004 Higher Education Practicum. This course will provide an orientation to the student services division, as well as offering students the opportunity to gain experience in a higher education setting. Requires field placement. Prereq.: Permission of instructor. 3 s.h.

7005 Internship in Student Affairs. This course will provide a weekly supervision and 600 hours of supervised field experience for student affairs students. The internship supervision is designed to promote the integration of theory and practitioner experiences for students in the student affairs program and to help students prepare for the transition to a professional student affairs position following completion of the degree. Prereq.: COUN 6900, 6962, 6973, 6973L, 7021, 7023, and 7026. 3–6 s.h.

7006 Guidance in the Classroom. Studies various factors important to a facilitative climate in the classroom and activities through which elementary counselors and teachers can provide these conditions. Considered as classroom management and discipline techniques based upon learning theory, implementation of democratic group structure for elementary school classrooms, and organized activities designed to promote the development of self-understanding and understanding of others in the child's world. The course requires extensive reading and review of published materials designed for classroom guidance in addition to observation of classrooms and role-playing experiences. For counseling majors or by permission of Department of Counseling. 2 s.h.

7007 School Counseling Practicum II. Supervised individual and group counseling practices in school counseling. Requires field placement of 150 hours. Prereq.: COUN 7001, no PR grades, successful completion of department comprehensive exam, and permission of instructor. 3 s.h.

7008 Assessment for Educational Decision Making. Assessment procedures used for making leadership decisions in the educational setting. Emphasis on community assessment, identifying high-risk students, and the development of guidance and state testing programs. 2 s.h.

7009 School Counseling Internship. Supervised internship in approved school counseling programs. May be repeated to a maximum of 9 semester hours. For counseling majors or by permission of Department. Prereq.: COUN 7002. 3–8 s.h.

7010 Community Counseling Internship. Supervised internship in approved community agencies offering counseling and other mental health services. May be repeated to a maximum of 9 semester hours. For counseling majors or by permission of Department. Prereq.: COUN 7002. 4–8 s.h.

7013, 7014, 7015 Topical Seminar in Counseling. The course is for practicing counselors and counselor trainees and will include a survey of literature in counseling, contemporary issues, individual and small group study of special problems chosen by staff, for example, research in counseling, counselor values, and the counseling process; student values and drug abuse; team approach to counseling services; etc. May be repeated to a maximum of ten semester hours. Prereq.: Permission of instructor. 1–3 s.h.

7017 Group Procedures in Counseling. A laboratory course intended as an experimental introduction to dynamics of groups. Students will participate in community experiences involving the entire class as well as small group activities involving subdivisions of the class. Readings on group processes and involvement in relevant projects and reports are also included in the course. Prereq.: Permission of instructor. 2 s.h.

7021 Legal and Ethical Issues in Student Affairs. This course is designed to provide graduate students with an introduction to the legal and ethical issues which affect higher education and student affairs practice. The primary goal of this course is to provide an exploration and understanding of legal issues pertaining to the various constituents of colleges and universities

(students, faculty, and administrators). 3 s.h.

7023 Characteristics and Development of College Students. Students will be exposed to a range of human development theories and student characteristics that offer insight into the processes of student learning, growth, and development during the college years. Special focus will be directed toward the implications of these models for developing practices and strategies to meet the needs of a diverse student body. This course includes a 35-hour experiential practicum experience. 3 s.h.

7026 Foundations and Functions of Student Affairs. Provides the graduate student with a comprehensive introduction to the field of student affairs and its role within the context of American higher education. A related goal is to develop a broad foundation of knowledge to which subsequent study of practitioner skills and research strategies may be added. This course includes a 35-hour experiential practicum experience. 3 s.h.

7028 Advanced Counseling Theory and Treatment Seminar. Research and discussion on selected counseling theories (e.g., Adler, Rogers, Ellis, Carkhuff, Berne) chosen by staff. May be repeated. 3 s.h.

7029 Professional Issues in Student Affairs. The purpose of this course is to expose graduate students to contemporary issues shaping student affairs practice. Topics will vary but will focus on the development of knowledge and skills in emerging areas relevant to professionals in student affairs (e.g., enrollment management, retention, assessment, finance and budget, grant writing). 3 s.h.

7030 Human Relations Training for School Personnel. Designed to improve the interpersonal relationships of administrators, counselors, teachers, and other professional staff. Objectives include examination of personal communication styles, the effect of the individual on task groups, and increasing leadership potential. For counseling majors or permission of Department of Counseling. 2 s.h.

7031 Clinical Psychopathology and Treatment. Counseling theories of abnormal behavior and mental disorders throughout the total life cycle. Specific personality theories and examinations of empirically-derived treatments will be included. Prereq:. COUN 6962. 3 s.h.

7032 Clinical Intellectual Testing. Supervised practice in the administration and interpretation of standardized intelligence and aptitude tests. Prereq.: COUN 6964. 3 s.h.

7033 Personality Objective/Projective Assessment. Supervised practice in the administration and interpretation of standardized objective and projective measures of personality. Prereq.: COUN 6964. 3 s.h.

7036 Consultation and Educational Approaches to Prevention. The study of consultation theory and models. Educational approaches to prevention of substance abuse, child abuse, family and marriage problems, etc. will be included 3 s.h.

7037 Counseling and Psychopharmacological Treatments of Mental and Emotional Disorders. The study of pharmacological, behavioral, cognitive, and emotive strategies and techniques associated with the treatment of mental and emotional disorders commonly encountered in mental health settings. Prereq.: COUN 6980 or 7013A. 3 s.h.

7038 Counseling with Couples. Application of family systems theory to intervention and

prevention strategies with couples. 3 s.h.

7039 Administration and Supervision of Mental Health Services. A comprehensive study of management, planning, function, personnel structuring, supervision, and counseling services in a mental health setting. 2 s.h.

7040 Supervision Practicum. Theory and practice of counselor supervision. Includes practicum assignment in counselor education. For counseling majors only and by permission of Department of Counseling. Prereq.: COUN 7010. 3 s.h.

7041 Clinical Counseling Practice III. Laboratory experience in the evaluation and treatment of mental and emotional disorders, including the development and implementation of a treatment plan, assessment and reporting of treatment program, and referral procedures. Prereq.: COUN 7010 or permission of instructor. 3 s.h.

7042 Administration and Organization in Higher Education. The purpose of this course is to expose graduate students to the complex study of administrative practices and organizational theory in the context of examining campus environments. By developing an informed knowledge base regarding the multiple perspectives of organizations and campus environments, students will be better prepared to lead change in student affairs settings. 3 s.h.

7044 Leadership in Student Affairs. This course is intended to provide graduate students with a comprehensive understanding of the concepts, principles, and practice of leadership within the student affairs profession. Through theoretical and practical applications, students will develop the necessary leadership knowledge and skills needed to solve challenges within higher education. This course includes a 35-hour experiential practicum experience. 3 s.h.

7046 Assessment in Student Affairs Practice. The purpose of this course is to promote the understanding of assessment and program evaluation in enhancing practice. The course will focus on how to utilize assessment to improve practice and to demonstrate the effectiveness of programs, as well as to provide opportunities to effectively assess various dimensions of the college experience. By learning the usefulness and appropriateness of various assessment methodologies, the emerging practitioner will learn to provide evidence for effective practice. 3 s.h.

7050 Clinical Counseling Internship. Supervised experience in Community Counseling Clinic offering diagnosis and treatment of mental and emotional disorders. For counseling majors or by permission of Department of Counseling. Prereq.: COUN 7010. May be repeated. 3 s.h.

7060 Thesis Research. Design, proposal, completion, and reporting of scholarly research deemed acceptable by the department faculty. For counseling majors or by permission of Department of Counseling. Prereq.: COUN 6964, 6968, or permission of department chair. 1–6 s.h.

Special Education

5802 Education of Exceptional Children. (3 s.h.)
5810 Introduction to Sign Language. (3 s.h.)
5828 Education of Seriously Emotionally Disturbed Children and Youth. (4 s.h.)
5833 Characteristics and Needs of Exceptional Children and Youth with Moderate/Intensive Disabilities. (3 s.h.)
5834 Educational Strategies and Methods for Children and Youth with Moderate/Intensive Disabilities. (4 s.h.)
5835 Classroom Management for Exceptional Children and Youth. (4 s.h.)

5851 Transition Planning, Social Skill Development, and Health-Related Issues. (3 s.h.)
5853 Diagnosis and Intervention in Mathematics for Special Education. (3 s.h.)
5858 Intervention Concepts and Strategies in Early Childhood Special Education. (2 s.h.)
5864 Service Coordination, Collaboration, and Consultation for Students with Special Needs. (3 s.h.)
5865 Worshop in Special Education. May be repeated to a maximum of 12 semester hours. (1-4 s.h.)
5866 Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist. (3 s.h.)
5867 Intervention and Remediation of Receptive/Expressive Language Dysfunction. (3 s.h.)
5868 Mild/Moderate Disabilities Practicum. (4 s.h.)
5870 Independent Study in Special Education. (1-4 s.h.)
5871 Characteristics and Needs of Gifted Children. (3 s.h.)
5878 Teaching Gifted and Talented Students. (4 s.h.)

6965 Special Topics in Disabilities Education. Workshop will include information on various current topics appropriate to the education of students with disabilities. These include assessment, identification, and instructional processes. 1–4 s.h.

6970G Special Topics in Gifted Education. Workshop will include information on the various identification techniques used in gifted education with particular emphasis on the role of the regular education teacher. In addition, instructional strategies for use within the regular education classroom will be explored. 1–4 s.h.

6980 Topical Seminar in Special Education. Selected topics in special education. May be repeated for different content. 1–4 s.h.

6981 Seminar in Special Education. 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. 3 s.h.

6982 Educational Assessment in Gifted and Special Education. 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. 3 s.h.

6983 Characteristics and Needs of Children and Youth with Mild/Moderate and/or Moderate/Intensive Disabilities. Description, classification, development, and academic and social adjustment of children and youth with disabilities ranging from mild to intense, including ADHD and autism. Relates the contributions of diverse disciplines to theory and practices. Developing objectives, planning, and implementing curriculum based on individual student needs addressed in Individual Education Plans. Field experience required. 3 s.h.

6984 Major Concepts and Program Design for Students in Special Education. 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. 3 s.h.

6986 Severe Behavior Disorders. A comprehensive analysis of programs and the description of the delivery of services to a wide range of seriously emotionally disturbed children and youth. 3 s.h.

6991 Referral and Assessment in Early Childhood Special Education. 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. 3 s.h.

6992 Teaching Methods in Early Childhood Special Education. 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. 3 s.h.

6993 Health and Related Issues in Early Childhood Special Education. 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. Prereq.: SPED 5858. 2 s.h.

6994 Field Experiences in Early Childhood Special Education. Supervised field experiences incorporating theory, planning and implementation of services for young children with special needs. Prereq.: SPED 5858, 6991, 6992, 6993. 4–8 s.h.

6998 AAC Strategies. Assessment and application of methods to increase communication form, function, and literacy for individuals who need alternate and/or augmentative communication (AAC). Prereq: SPED 6997 and PSYCH 6960 or 6990. 3 s.h.

6999 Field Experiences Autism/Related Disorders. Supervised clinical field experiences incorporating theory, planning, and implementation of services for children with autism spectrum disorders. Weekly seminars connect theory to practice. Prereq: SPED 6996, 6998, and PSYC 6960 or 6990. May be repeated once for a maximum of 6 s.h. 3-6 s.h.

7021 Field Experience I. See EDAD 7021. 2 s.h.

7040 Field Experience in Gifted and Talented Education. (SED 7040) 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, 5878, 5879, and 6982. 2 s.h.

7042 Professional Development for Classroom Teacher Educators. 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. 2 s.h.

7043 Instructional Leadership in Special Education. 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. 3 s.h.

7077 Leadership in Gifted and Disabilities Education. The course focuses on leadership, administration, and supervision of a broad range of programs and services for students with exceptionalities (students with disabilities as well as gifted students). Topics include review of theoretical foundations, historical and sociological issues as these relate to education of 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. Prereq.: SPED 5871, 5878, 5879. 3 s.h.

Criminal Justice

Patricia B. Wagner, Chair
2087 Cushwa Hall
(330) 941-3279
pbwagner@ysu.edu

5802 Corrections Law and Liability. (3 s.h.)
5814 Forensic Science and the Criminal Justice System. (3 s.h.)
5820 Advanced Legal Research. (3 s.h.)
5825 Criminal Procedures and Constitutional Issues. (3 s.h.)
5831 Violence in America. (3 s.h.)
5865 Gathering and Using Information in Criminal Justice. (3 s.h.)
5875 The Juvenile Justice System. (3 s.h.)
5892 Comparative and International Criminal Justice Systems. (3 s.h.)

6910 Law and Criminal Justice. An historical analysis of criminal law as a social control. An overview of substantive criminal law and criminal procedural law in the United States. 3 s.h.

6915 Advanced Criminology. A comprehensive analysis of the causes of crime from an interdisciplinary perspective. Major criminological theories are considered in light of contemporary empirical research. Prereq.: CJUS 2630. 3 s.h.

6920 Criminal Justice Studies, Practices, and Theories. A critical analysis of the field of criminal justice studies including crime statistics, crime causation, the criminal justice process, and the agencies involved. Prereq.: CJUS 1500 Introduction to Criminal Justice. 3 s.h.

6925 Administration and Management Theory. Administration and management theory as applied to criminal justice agencies. Includes the functions of the executive, the nature of authority and leadership, organizational communication, and theories of employee motivation. 3 s.h.

6940 Statistical Techniques in Health and Human Services. A consideration of the courses of statistical information in the human resource systems and the limits of such data, with primary emphasis upon multivariate statistics and their application to the field. Prereq.: CJUS 6942 or permission of instructor. 3 s.h.

6942 Research and Statistics in Health and Human Services. A consolidated statistical and research course in human services to design and use qualitative and quantitative research, use and interpret descriptive and inferential statistics, and evaluate the research of others. Prereq.: CJUS 3710 Social Statistics and CJUS 3712 Criminal Justice Research, or permission of instructor. 3 s.h.

6945 Research Methods in Health and Human Services. An analysis of the design and execution of both quantitative and qualitative research in the human services, and the development of

research designs most useful to human services research problems. Prereq.: CJUS 6942 or permission of the instructor. 3 s.h.

6950 (A–Z) Selected Topics Seminar in Criminal Justice. Addresses specific topics relating to the crime problem and the criminal justice process. The topics may vary from semester to semester and will be announced prior to enrollment. This course is repeatable provided it is on different topics. 3 s.h.

6955 Independent Study. Study under the personal supervision of a faculty member with the approval of the graduate director. May be repeated once. 3 s.h.

6957 Readings in Criminal Justice. Extensive reading assignments in the student's interest area under the supervision of a graduate faculty member. May be repeated for no more than a total of six semester hours Prereq.: Approval of graduate director. 1–4 s.h.

6960 Program Planning and Evaluation. A systematic review and evaluation of human services programs with special attention to the posting of questions in context; questions relating to the selections of design, method, and process of summative evaluation; and assessing the effectiveness of programs. 3 s.h.

6970 Applied Police Management. Systematic examination of the principles and practices related to the management of police organizations. Examples will reflect problems of the urban and suburban environments, relationships with political entities, and internal control. 3 s.h.

6971 Human Resources in Policing. Evaluation of police personnel systems, employment qualifications, psychiatric screening, polygraph examination, minority recruitment, and police cadet systems, personnel costs, educational requirements, lateral entry, mandated state minimum training standards, and federal involvement in police manpower. 3 s.h.

6980 Managing Correctional Operations. Historical review of corrections in the United States. Modern theories of correctional administration and organization in both facilities and community settings. Special focus on financial operations, contagious illnesses, security, staff management, corruption, programming, architecture, hostage situations, and community concerns. 3 s.h.

6981 Correctional Case Management. Case management, presentencing investigation, classification, and risk assessment. Analysis of theories of rehabilitation as applied in corrections. Special focus on training, recreation, health care and mental health services, religious programs, and specials needs offenders, including sexual and drug offenders. 3 s.h.

6990 Criminal Justice Public Policy Seminar. Types of policy and how policies are formulated are covered. The evaluation of policy, with attention to what constitutes good public policy. Special attention is given to the impact of crime control policies, particularly crime legislation and current laws. 3 s.h.

6995 Field Experience in Criminal Justice. Supervised experience in an applied criminal justice setting. Prereq.: Majority of core and track courses completed and the recommendation of student's committee and approval by graduate director. Permit required. 2–4 s.h.

6998 Graduate Paper. Graduate-level research and a comparable paper under the supervision of the student's major professor. 2 s.h.

6999 Research and Thesis. 1–6 s.h.

Economics

Teresa Riley, Interim Chair, 2008-2009
107 DeBartolo Hall
(330) 941-1517
triley@ysu.edu

Tod Porter, Chair
303 DeBartolo Hall
(330) 941-3428
tsporter@ysu.edu

5801 Economics of Industrial Organization. (3 s.h.)
5806 History of Economic Thought. (3 s.h.)
5809 Current Problems in Money, Banking, and Financial Markets. (3 s.h.)
5811 International Trade. (3 s.h.)
5812 International Finance. (3 s.h.)
5822 Urban and Regional Economics. (3 s.h.)
5824 Applied Time Series Analysis of Economic and Business Data. (3 s.h.)
5831 Labor Markets. (3 s.h.)
5856 Topics in Quantitative Economics. (3 s.h.)

6900 Statistical Problems. A survey of the fundamental statistical techniques used in business with special emphasis on interpreting the results generated by statistical software. Techniques covered: hypothesis tests of means and proportions, estimation, chi-square tests, analysis of variance, correlation, and regression. Not applicable toward the M.A. in economics. 3 s.h.

6901 Basic Economic Analysis. An introduction to micro- and macroeconomics with emphasis on the use of economic theory in business decision making. This course is designed for professionals in business and other related areas with no previous background in economics. Not applicable toward the M.A. in economics. 3 s.h.

6904 Quantitative Methods for Economics. A course designed to provide graduate students in economics with an opportunity to acquire the necessary skills in using the quantitative methods that are required to complete graduate-level economic theory and econometrics courses successfully. The course introduces the basic concepts and procedures of differential and integral calculus that are used in economic analysis, as well as the fundamental probability and statistics which are needed in the study of econometrics. 3 s.h.

6912 Microeconomic Theory. Study of demand and supply, consumer theory, the theory of the firm, various market structures, and Pareto efficiency. 3 s.h.

6915 Health Policy. A theoretical and empirical analysis of the health care sector. Topics include the demand for health care and health insurance, the perverse incentives of health insurance, moral hazard, physician and hospital behavior, and the role of competitive markets in the delivery of health care. Special emphasis is placed on the analysis of public policy, including financing and regulating the health care industry. Prereq.: ECON 6901 or equivalent. 3 s.h.

6922 Macroeconomic Theory. Examines models used to determine the value of various aggregate economic variables, such as the price level, national income, employment, interest rates, and wage rates. 3 s.h.

6939 The Economics of Financial Markets and Institutions. Study of the institutions, instruments, and markets that facilitate the distribution of financial resources throughout the economy. The course discusses the money, capital, and commodity markets. Also, the topics of accessing default risk and hedging against market risk are discussed. Prereq.: ECON 6901 or equivalent. 3 s.h.

6940 Financial Economics. Study of various topics, including risk and the selection of the optimal monetary control tool, politics and monetary control, the financial firm as an optimizing institution, and portfolio theory. Prereq.: ECON 6939 or permission of the instructor. 3 s.h.

6941 Monetary Economics. Study of the empirical analysis using multivariate time series methods, including the topics of distributed lag models, selection of the appropriate lag structures, causation versus correlation, and cointegration. Prereq.: ECON 6922 or permission of the instructor. 3 s.h.

6945 Public Finance. Study of the role of the government in the economy. The topics covered will include expenditure analysis, theories of taxation, provision of public goods, fiscal federalism, and public choice theory. Prereq.: ECON 6912. 3 s.h.

6946 State and Local Public Finance. Study of the special problems of financing subnational governments. Topics include the optimal level of local government spending, public choice through voting, public choice through migration, the combination of taxes used by state and local governments, the theory of tax incidence, the effect of intergovernmental grants, and expenditure patterns of local governments. Special attention will be given to local governmental grants and expenditure patterns of local governments, as well as local governments' role in financing education and transfer payments. Prereq.: ECON 6901 or equivalent. 3 s.h.

6950 Labor Market Theory. A theoretical analysis of the operation of the labor market. The topics covered will include the demand for labor, supply of labor, household production, labor market discrimination, the effects of transfer programs, and the role of unions in the labor market. Prereq.: ECON 6901 or equivalent. 3 s.h.

6952 Transfer Programs and Poverty. A study of poverty and the effectiveness of antipoverty programs. Topics include defining and measuring poverty, trends in the rate of poverty and the distribution of income, causes of poverty, models of discrimination, effectiveness of government training programs, transfer programs and their effect on labor supply, and the financial stability of the Social Security retirement program. Prereq.: ECON 6901 or equivalent. 3 s.h.

6955 Antitrust and Market Structure. Study of the pivotal court decisions that have determined the direction of antitrust law. Concentration is on the economic analysis of court decisions and the impact of the courts' decision on market structure. Topics covered include price fixing, mergers, monopolization, and exclusion practices. Prereq.: ECON 6901 or equivalent. 3 s.h.

6970 Economics Internship. The practical application of economic knowledge and statistical skills in the workplace. Students assist participating professionals in various kinds of industrial, financial, and public service organizations. By permit only. Prereq.: ECON 6904, 6912, and 6922. May be repeated for a maximum of three semester hours. 1–3 s.h.

6976 Econometrics. Study of the fundamentals of econometric techniques that are useful for estimating causal economic relationships. The objectives include (1) analysis of the effects of exogenous factors on the variable whose behavior we seek to explain, (2) testing of hypotheses about new and existing economic theories, and (3) forecasting estimated economic relationships

beyond the sample period for the purpose of planning and control. The course will focus on the practice of econometrics with extensive applications to a variety of real-world problems in many areas of economics. Prereq.: ECON 6904. 3 s.h.

6981 International Finance. Study of the foreign exchange market; the business and economic consequences of changes in domestic and foreign banking; central banking; and financial market policies. The development of various exchange rate standards, foreign currency markets, and the Eurocurrency and Eurobond markets. Prereq.: ECON 6901 or equivalent. 3 s.h.

6985 International Trade and Development. Study of the determination of a country's exports and imports, the social welfare consequence of trade, free trade versus restricted trade, preferential trading agreements, and the current composition and direction of U.S. trade. Prereq.: ECON 6901 or equivalent. 3 s.h.

6990 Special Topics in Economics. Special interest topics selected by the staff in the following areas: economic education, economic theory, and applied economics analysis. May be repeated for a maximum of six hours toward a graduate degree. 1–3 s.h.

6998 Research Seminar. Applied quantitative research techniques will be discussed. Students are required to undertake an original quantitative research project in a field of economics and write a paper summarizing their results. Prereq.: ECON 6912 and 6922. Course may be taken concurrently with ECON 6976. 3 s.h.

6999 Master's Thesis. A research project under the supervision of a member of the department on the graduate faculty. Prereq.: ECON 6912, 6922, and 6976. 1–6 s.h.

Educational Administration

Gunapala Edirisooriya, Chair
4107 Beeghly Hall
(330) 941-1436
gedirisooriya@ysu.edu

6915 Learning, Teaching, and Instructional Leadership. Leadership behaviors and expectations intended to build teacher commitment, increase teaching competence, and improve the learning climate of students. The importance of and role that adult development and learning play in teacher leadership regarding curriculum and instruction decisions are stressed. 3 s.h.

6931 Leadership in Educational Organizations: Theory to Best Practices. Significant theories, research, and professional practices in the leadership of schools and school systems. Detailed analysis of primary sources and application of sources to reflection on issues and problems of administrative practice. 3 s.h.

6933 Educational Policy, Politics, and Change. Explores who governs America's schools. Provides an introduction to schools as political systems and the values that shape educational politics and policy making. Examines the role of school leaders as agents of change and alternative change models and strategies. 3 s.h.

6947 School Building Leadership: Models and Processes. Theories of leadership and schooling that provide future principals with guides for action and behavior will be presented. Theories that shape personal decision-making processes that build schools as learning communities will be presented. 3 s.h.

6949 Legal and Ethical Issues in Public Administration. Defines law and professional ethics and discusses the role of each in public decision making. Explores the status and application of the law in various areas of school operations through the reading of cases, statutes, and constitutional provisions. 3 s.h.

6952 School Finance, Resource Planning, and Management. An analysis of school funding on a state and local level. School budgeting, site-based management, and school business practice are major topics. An action research project is part of the course requirement. 3 s.h.

6954 Marketing and Community Relationships. Stresses effective communication that supports the marketing of school purposes and programs. Leadership skills that build community support and recognize the value of message delivery to targeted audiences in the community will be related to the marketing of schools. 3 s.h.

6955 Professional Development and Human Resources. In-depth examination of policies and practices designed to reconcile the interests of schools and the people who make them up. Topics include professional and staff development, equal employment, position description, recruitment, selection, performance appraisal, removal, compensation, and emerging issues. 3 s.h.

6975 Introduction to Administration Clinical Experience. Differentiated by school level. First clinical experience for candidates for the Master of Science in Education in educational administration designed as an exploratory experience. Students complete tasks in eight competency areas in the master syllabus. Prereq.: Completion of five of the following seven courses: EDAD 6915, 6931, 6933, 6947, 6949, 6954, 6955, and successful passing of all parts of the comprehensive examination. 3 s.h.

6982 Independent Study/Action Research. Individual investigation of advanced topics under the guidance of selected departmental faculty. May be repeated. 1–3 s.h.

6990 Seminar in Educational Administration. A seminar designed for the development of particular skills and/or perspectives on a topic related to educational administration. 1–3 s.h.

6993 Special Topics in Educational Administration. Prereq.: Admission to master's degree program in educational administration. 1–4 s.h.

6995 Workshop in Educational Administration. A workshop designed for the development of particular skills and/or perspectives on a topic related to educational administration. 1–3 s.h.

7014 Systematic Use of Information for Continuous School Improvement. Information systems concepts: analysis, design, implementation, and evaluation applied to individual, school, and program evaluation and improvement. Experience with information retrieval and synthesis from local and state educational databases. An action research project is a major course requirement. 3 s.h.

7018 School Discipline and Student Support Services: Policies, Programs, and Prevention Strategies. Examines school discipline and youth problems that threaten student health, welfare, and safety and research-proven school programs for addressing such problems. Emphasizes the role of school leaders in developing and implementing comprehensive policies and student support programs. 2 s.h.

7022E Clinical Experience: Elementary Principalship. Completed in a school covered by an elementary teaching certificate or license. Second administrative clinical experience designed to highlight building-level tasks. Students are required to complete six tasks from the master

syllabus and an integrated project, at the direction of an elementary building principal. Prereq.: Completion of three of the following courses: EDAD 7014, 7018, SPED 7077, EMCE 6921. 3 s.h.

7022M Clinical Experience: Middle School Principalship. Completed in a school covered by a middle school teaching certificate or license. Second administrative clinical experience designed to highlight building-level tasks. Students are required to complete six tasks from the master syllabus and an integrated project, at the direction of a secondary building principal. Prereq.: Completion of three of the following courses: EDAD 7014, EDAD 7018, SPED 7077, TEMC 6941. 3 s.h.

7022S Clinical Experience: Secondary Principalship. Completed in a school covered by a secondary teaching certificate or license. Second administrative clinical experience designed to highlight building-level tasks. Students are required to complete six tasks from the master syllabus and an integrated project, at the direction of a secondary building principal. Prereq.: Completion of three of the following four courses: EDAD 7014, 7018, SPED 7077, SED 6931. 3 s.h.

7024 Collective Bargaining and Systems Issues in Human Resources Administration. Human resources issues from the central office perspective. Statutory, regulatory, and political contexts for public sector collective bargaining. Conceptual and experiential treatment of traditional and interest-based bargaining. Approaches to human resources policy development. Grievances and management of written agreements. 3 s.h.

7025 Educational Governance: Advanced Law and Policy Seminar. Explores emergent legal developments affecting P–12 education systems and the role and limits of the law in promoting educational emergent reform. Reviews social science literature on governance issues and factors that affect the nature, degree, and rate of organizational compliance. 3 s.h.

7026 Technology and Facilities for Learning Organizations. Due to increasing demands upon the educational facilities by the instructional use of technology and the need to prepare students for the world of work, facility management and integration of technology into the facility are examined. 3 s.h.

7035 The Superintendency and Evolving Ways of Looking at Leadership. This course examines the role of superintendent in the administration of schools. Students will study leadership in complex social organizations so that they can apply current theory and research to their roles in complex, chaotic, educational environments. 3 s.h.

7040 Clinical Practice for the Administrative Specialist. Candidates for administrative specialist licenses in areas of curriculum, instruction, and professional development or pupil services administration develop an individualized clinical plan and complete a set of tasks and an integrated project aligned with professional standards under the guidance of an appropriately licensed cooperating administrator. Prereq.: Candidates must have completed all or be currently enrolled in remaining courses that compose the requirement of respective specialist license. 3 s.h.

7050 Clinical Experience: Superintendency. Candidates for the superintendency license are required to complete four tasks from the master syllabus at the district-wide level, supervised by a school superintendent. Major components are the complete analysis of the financial structure of the candidate's school district and a system-level integrated project. Prereq.: Completion of three of the following four courses: EDAD 7024, 7025, 7026, 7035, and two years experience in a building-level administrative capacity or equivalent. 3 s.h.

8100 Professional Skill Development Seminar. A doctoral student induction program, which includes intensive writing, research, and technology strands. The purpose is to assess the student's abilities as a doctoral student and begin the appropriate strategies necessary for successful completion of the doctoral program. Prereq.: Admission to the doctoral program. 3 s.h.

8122 Leadership in Education. In this course students will critically analyze contemporary ways of thinking about leadership. As students examine their present paradigm of leadership, they will also analyze a reconfiguration of leadership that reflects developments in the new sciences and other fields. Prereq.: Admission to the doctoral program. 3 s.h.

8125 Educational Politics and Policy Making in the United States. Reviews professional literature on politics and policy making at the local, state, and federal level, including the values, institutional actors, processes, and interest groups that shape educational policy. Explores means of identifying problems, analyzing policy alternatives, and measuring policy outcomes. Prereq.: Admission to the doctoral program. 3 s.h.

8140 Seminar in Administrative Theory. Extension of the administrator's abilities to analyze professional problems, develop leadership strategies, and exercise sound decision making. Nontraditional (nonfunctionalist) theories are stressed, with emphasis on deconstructing and purposefully framing educational issues. Case studies strengthen the application of the theories. Prereq.: Admission to the doctoral program. 3 s.h.

8155 Seminar in Current Educational Issues. Informing educational leaders about contextual issues of schools is necessary in order to understand and recognize that school reform, both at the time of its proposal and during the developmental stages of its implementation, is intended to ameliorate educational problems. Prereq.: Admission to the doctoral program. 3 s.h.

8180 Special Topics in Educational Leadership. Selected topics for a focused study on problems, issues, or concerns that relate to educational leadership. Prereq.: Admission to the doctoral program. 1–3 s.h.

8185 Seminar in Educational Research/Dissertation Proposal. The purpose of this course is to gain knowledge and skills in developing a research question and an appropriate methodology so that chapters I and II of a doctoral dissertation can be completed. Prereq.: FOUN 8104, 8110, 8112, and 8114. 3 s.h.

8190 Dissertation Study. Covers the design, proposal, conduct, reporting, and defense of scholarly research that addresses a meaningful topic derived from and contributing significantly to the literature of the field. Prereq.: Completion of doctoral comprehensive examination. 1–9 s.h.

Electrical and Computer Engineering

Jalal Jalali, Chair
2046 Moser Hall
(330) 941-3012
jjalali@cc.ysu.edu

5800 Special Topics. (1–3 s.h.)
5807 Advanced Digital and Analog Circuits. (3 s.h.)
5808 Signals and Systems. (3 s.h.)
5816 Theory and Fabrication of Solid-State Devices. (3 s.h.)
5817 Sensor Design and Application. (3 s.h.)
5830 Digital Signal Processing. (3 s.h.)

5835 Computer Architecture with VHDL. (4 s.h.)
5840 Electric Power Systems. (4 s.h.)
5850 Communications Applications. (3 s.h.)
5860 Energy Radiation and Propagation. (3 s.h.)
5879 Computer-Aided Design. (3 s.h.)
5890 Power Electronics. (4 s.h.)

6900 Seminar. May be repeated once. 1–3 s.h.

6901 Control Systems I. Fundamental concepts in linear system theory. matrix algebra, linear vector spaces, linear operators. Input-output and state-space models for continuous-time systems; canonical forms. Solutions of state space equations. Characteristics of linear systems: stability; controllability and observability. State variable feedback; introduction to state estimation. 3 s.h.

6902 Control Systems II. State-variable feedback techniques; design of state estimators. Design using polynomial equations. Design of digital controllers: discrete equivalents and direct methods. Introduction to implementation of digital control systems. Prereq.: ECEN 6901. 3 s.h.

6903 Advanced Control Systems. Introduction to nonlinear control systems: basic nonlinear phenomena, describing functions, Lyapunov stability, linearization techniques. Introduction to linear optimal quadratic control; stochastic modeling and Kalman filtering. Prereq.: ECEM 6902. 3 s.h.

6911, 6912 Electromagnetic Fields I and II. Solution of boundary value problems in general form. Laplace, Poisson, and diffusion and wave equations in orthogonal coordinate systems. 3+3 s.h.

6933 Digital Systems: VHDL Design. Local minimization, design of combinational networks; design of synchronous and asynchronous sequential machines; design of digital systems using VHD, modeling combinational and sequential networks, compilation, simulation, and synthesis of VHDL codes. 3 s.h.

6934 Digital Systems: Computer Arithmetic. Number system representations: standard and unconventional formats. Design of two-operand and multi-operand fast adders. High-speed multiplication and division algorithms. Floating-point numbers, algorithms, and error control. Hardware algorithms for function evaluation. Prereq: ECEN 6933. 3 s.h.

6981 Electric Power System Engineering. The formulation of equations to study electric power network problems, including feeders, power flow, short circuits, protection systems, and stability. The study of power system over-voltages and transients caused by short circuits, switching, and lightning. The application of numerical techniques to study and design special projects using digital computations. 3 s.h.

6983 Modern Power Sources. Analytical and descriptive study of modern power plants. Combustion and environmental problems with fossil-fueled power plants. Electromagnetic circuits and devices with emphasis on the principles of electromechanical energy conversions. Cross-listed with CHEN 6983 and MECH 6983. 3 s.h.

6985 Electromechanical Motion Devices. Thermodynamics of batteries, and of electric and fuel cells. Power from nuclear isotopes. Features common to rotating electromagnetic fields. Analysis and design of electromechanical power components. Logic circuit design with I/O structure and interface. Cross-listed with CHEN 6985 and MECH 6985. 3 s.h.

6986 Power Electronics Circuits and Devices. The design and analysis of power electronic circuits using solid-state switching devices. Topics include power semiconductor diodes and transistors, diode circuits and controlled rectifiers, thyristors, communication techniques, AC voltage controllers, and switching regulators, with applications. 3 s.h.

6987 Power Electronics and Industrial Drives. The design and analysis of power electronic circuits and systems, static switches, power supplies, AC and DC drives, and protection of power electronic devices and circuits. 3 s.h.

6990 Thesis. 1–6 s.h.

Engineering and Technology

Martin Abraham, Dean
2200 Moser Hall
(330) 941-3008
martin.abraham@ysu.edu

6920 Project Planning and Management. Methods for planning, organizing, scheduling, supporting, and controlling projects. Network techniques, including CPM, PERT, and time-cost trade-off analysis. Techniques for the estimation of time, manpower, and other resource requirements of the projects, including economic and statistical analysis, forecasting, learning curves, and line balancing. Management of time and other resources involved. Case studies and utilization of computer resources for the analysis and presentation of projects. Prereq.: Graduate standing or permission of instructor. 3 s.h.

6921 Engineering Statistics. Development and application of stochastic models of engineering systems. Elementary probability models applied to decision making under uncertainty. Development and use of theoretical probability distributions for describing stochastic systems. Models for point and confidence interval estimation and models for correlation analysis applied to engineering problems. Prereq.: MATH 2674. 3 s.h.

6922 Engineering Systems Analysis. Formulation and solutions of mathematical models in the engineering field. Analysis includes frequency and time response, boundary value problems, and state space variables. 3 s.h.

6923 Information Technology Tools For Engineers. Accessing information through library databases, newsgraphs, WWW sites, etc. Using synchronous and asynchronous communication through web-based technologies. Information content creation, HTML client/server computing and their application in the engineering domain will be covered. 3 s.h.

6924 Computer Based Tools For Engineers. Computer simulation of engineering models used in different engineering disciplines. The computer tools will include mathematical solvers and spreadsheets. Numerical solutions of linear and non-linear equations and ordinary and partial differential equations. Prereq.: ENGR 6922. 3 s.h.

6925 Applied Environmental Management. Practical application of environmental management practices in industry, with emphasis on regulatory compliance and international standards (ISO 14000). Areas of focus include monitoring of emission sources, air and water pollution control, solid and hazardous waste management, pollution prevention, employee health and safety, and property development and transfer. 3 s.h.

English

Gary Salvner, Chair
202 DeBartolo Hall
(330) 941-3415
gsalvner@ysu.edu

6900 Methods of Literary Research. Basic concepts and methods of literary research and analysis. 3 s.h.

6901 Methods of Composition Research. Theories and methods of composition research; emphasis on strategies for conducting, analyzing, and writing about classroom and workplace studies. 3 s.h.

6902 Literary Thought. May focus on particular theoretical approaches or provide an overview of literary criticism. May be repeated once with a different topic. 3 s.h.

6906 Teaching of Literature. Problems, issues, practices, and research that affect the teaching of literature at various grade levels and in college courses. 3 s.h.

6907 Teaching of Writing. Problems, issues, practices, and research that affect the teaching of writing at various grade levels and in college courses. 3 s.h.

6911 The Medieval World. Study of selected literary works reflecting medieval thought and culture. May be repeated once with a different topic. 3 s.h.

6912 Sixteenth- and 17th-Century British Studies. Nondramatic literature of the British Renaissance. May be repeated once with a different topic. 3 s.h.

6913 Shakespeare and Renaissance Drama. Varying emphases on the dramatic works of Shakespeare and/or his contemporaries. May be repeated once with a different topic. 3 s.h.

6914 Restoration and 18th-Century British Studies. Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic. 3 s.h.

6915 Early American Studies. Prose, poetry, and/or drama from the colonial period up to the early 19th century examined in their historical and cultural contexts. May be repeated once with a different topic. 3 s.h.

6916 Nineteenth-Century British Studies. Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic. 3 s.h.

6917 Nineteenth-Century American Studies. Examines 19th-century American literature and culture through particular themes, genres, styles, periods, and/or figures. May be repeated once with a different topic. 3 s.h.

6918 Studies in Children's Literature. Contemporary children's literature. Emphasis may be on development, trends, critical standards, cultural context, classroom selection and use. May be repeated once with a different topic. 3 s.h.

6919 Studies in Young Adult Literature. Contemporary young adult literature. Emphasis may be

on development, trends, critical standards, cultural context, classroom selection and use. May be repeated once with a different topic. 3 s.h.

6920 Twentieth-Century British Studies. Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic. 3 s.h.

6921 Advising Student Publications. A study of the role and responsibilities of the publication advisor in high school and college. Topics include the unique legal and ethical concerns of student publications, the training of writers and editors, the relationship of the student press to the academic administration, and a range of publication-management concerns. 3 s.h.

6922 Twentieth-Century American Studies. Examines works in relation to the history and social and cultural developments of the period. Nonliterary texts may be included, such as film, visual arts, and music. May be repeated once with a different topic. 3 s.h.

6923 Working Class Literature. A study of working-class literature, culture, and artistic production, with emphasis on the literary history, the material conditions, and the intersection of race, ethnicity, gender, and sexual orientation in the works of literature by and about the working class. 3 s.h.

6927 Historical Survey of Literature for Young People. Survey of historical developments from the 18th through mid-20th centuries in British and American literature for young people. 3 s.h.

6935 Studies in Romanticism. Prose, poetry, and/or drama of the period studied in historical and cultural context and from various critical perspectives. May be repeated once with a different topic. 3 s.h.

6943 Technical Communication. In-depth discussion of audience, format, document design, and corporate structure. Focus on refining skills and providing theoretical support for practical applications. Prereq.: ENGL 3743 Professional and Technical Communication and ENGL 4849 Professional and Technical Editing or ENGL 6949. 3 s.h.

6944 Document Design and Production. Application of computer software and hardware to design and produce professional/technical documents. 3 s.h.

6945 Theory of Professional and Technical Communication. Examines theory and research in professional and technical communication with emphasis on the application of theoretical concepts and empirical findings to practical problems in the field. Introduces students to theories and research methods through reading in current literature and through class research projects. 3 s.h.

6946 Historical Editing. Project-based approach to theoretical and practical aspects of editing historical and literary documents for both print and digital contexts. Topics include document selection, transcription, verification, and annotation, as well as the implications for teaching and learning using traditional print and electronic archives and texts. Cross-listed with HIST 6946. 3 s.h.

6949 Professional and Technical Editing. A study of the skills needed to make appropriate changes in the content, grammar, mechanics, style, format, and organization of manuscripts for scholarly, trade, journalistic, and other professional publications. The course deals with stages in the publishing process, hard-copy versus online editing, mechanical and substantive editing, and

the use of house and press styles. 3 s.h.

6950 Sociolinguistics. An investigation of the relationship between language and society. Includes discussion of dialects and standard languages, language planning, linguistic identity, multi- and bilingualism, class, gender, ethnicity, and social interaction. 3 s.h.

6951 Language Acquisition. 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. 3 s.h.

6953 Publications Issues and Management. Exploration of the issues involved in managing and producing professional publications, including publications in students' own fields. Focus on organizational, editorial, and authorial voice; editorial policies; audience analysis; and the processes by which publications are conceived, designed, and produced. 3 s.h.

6955 Advanced Linguistics. In-depth study of selected issues in contemporary linguistic theory. 3 s.h.

6956 TESOL Methods. Introduction to teaching English as a second language (ESL), including reading, writing, listening, and speaking. Focus will be on using communicative methods with nonnative speakers. 3 s.h.

6957 TESOL Practicum. Supervised teaching in an English as a second language (ESL) program. Additionally, weekly seminar attendance is required. 3 s.h.

6958 English Grammar. Descriptions and analysis of English grammar structure. 3 s.h.

6960 Studies in Linguistics. Examines a specific topic such as stylistics, semantics, sociolinguistics, second language acquisition, TESOL, or computational linguistics. May be repeated twice with a different topic. 3 s.h.

6963 Perspectives in Multicultural Studies. An advanced study of primary and secondary texts from the field of multicultural literature and multicultural education. The course will emphasize the formation of social identities, the intersections of race, class, and gender, relationships among dominant and nondominant subjects in U.S. and other global cultures. The course will pay special attention to the theory and application of multiculturalist paradigms to education, professional work, and graduate study. May be repeated once with a different topic. 3 s.h.

6965 Studies in Film. Analysis of motion pictures and their creators; topics may include classic and contemporary styles, genres, and methods of production, as well as film theory and criticism. May be repeated once with a different topic. 3 s.h.

6966 Writing of Poetry. Discussion and application of approaches, techniques, and forms involved in the writing of poetry. May be repeated once with a different topic. 3 s.h.

6967 Writing of Prose. Discussion and application of approaches, techniques, and forms involved in the writing of fiction and/or nonfiction. May be repeated once with a different topic. 3 s.h.

6968 Studies in Literary Form. Examines forms such as poetry, the novel, the short story, essay, biography, autobiography, or travel literature. Emphasis may be on definition, development, cultural context, figures, or themes. May be repeated once with a different topic. 3 s.h.

6974 English Education Workshop. Intensive study and activity in a topic related to teaching English and the language arts. Does not count toward degree credit. Grading is S/U. May be repeated. 1–3 s.h.

6975 English Education Seminar. Approaches to teaching English and the language arts. May be repeated once with a different topic. 1–3 s.h.

6976 Studies in English Education. Theories, issues, and/or criticism in the teaching of English. May be repeated once with a different topic. 3 s.h.

6989 Teaching Practicum. Techniques and strategies for teaching college composition, including course design and classroom practice. Required of and limited to graduate assistants who are teaching in the English Department. First-year graduate assistants must register for three semester hours of Teaching Practicum in two successive semesters for a total of six semester hours. Does not count toward degree credit. Grading is S/U. 1–3 s.h.

6990 Special Topics. May be repeated once. 3 s.h.

6991 Special Topics M.F.A. Special topics in literature and creative writing for students in the Master of Fine Arts (M.F.A.) program in creative writing. May be repeated once. Prereq.: Acceptance in the M.F.A. program. 3 s.h.

6992 Professional Communication. Focus on a selected topic in technical writing or professional communication (e.g., proposal writing, science writing, computer documentation, nonfiction prose). May be repeated once with a different topic. 3 s.h.

6993 Discourse Theory. Examination and discussion of contemporary theories of discourse analysis, with some attention to the history and development of rhetorical theory. 3 s.h.

6997 English Internship. Supervised work-and-learning experience in English under the direction of an English Department faculty member and an employee of a participating firm. Ten to 20 hours a week of student time are expected. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview. Either ENGL 6997 or ENGL 6998 Professional Writing Internship may count toward the degree—not both. 1–3 s.h.

6998 Professional Writing Internship. Supervised work-and-learning experience in professional communication under the direction of a University faculty member and an employee of a participating firm. Ten to 20 hours a week of student time are expected. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview. Either ENGL 6997 English Internship or ENGL 6998 may count toward the degree—not both. 1–3 s.h.

6999 Thesis. Prereq.: Thesis proposal accepted by departmental committee. 1–3 s.h.

Environmental Studies

See Geological and Environmental Sciences.

Finance

See Accounting and Finance.

Foreign Languages and Literatures

John Sarkissian, Chair
502 DeBartolo Hall
(330) 941-3461
jesarkissian@ysu.edu

5850 Sociolinguistics. (3 s.h.)
5851 Language Acquisition. (3 s.h.)

6900 Seminar. Study of selected topics common to several or all of the following languages: French, German, Italian, Spanish, Russian, and Latin. The topic will be announced each time the course is offered. May be taken three times for credit if content is not repeated. Prereq.: Proficiency in at least one of the languages taught by the department. 3 s.h.

6905 Technology in Foreign Language Teaching. Second language acquisition theory and practice. Application of preexisting course enhancing software and development of interactive, multimedia lessons. Practical uses of the web for expanding classroom instruction. 3 s.h.

6921 Foreign Language for Reading I. Intensive study of grammar and vocabulary in a foreign language with the goal of conducting scholarly research using materials available in that language. By the end of the course, students will be able to read some materials in the target language for content. Prereq: Graduate standing and permission of chair of department in which student is enrolled. 3 s.h.

6922 Foreign Language for Reading II. Continuation of FNLG 6921 with emphasis on translation. By the end of the course students will be able accurately to translate materials in the target language. Prereq: FNLG 6921 and permission of chair in department in which student is enrolled. 3 s.h.

6923 Foreign Language for Reading. Intensive study of grammar and vocabulary in a foreign language with the goal of conducting scholarly research using materials available in that language. May be repeated when level at which the language studied rises or if a different language is being studied. Prereq.: Graduate standing and permission of chair of department in which student is enrolled. 3 s.h.

French

6901 Special Topics in French. Arranged course for graduate students only. Prereq.: Two 4800-level courses in French with grade of B or better. 3 s.h.

German

6901 Special Topics in German. Arranged course for graduate students only. Prereq.: Two 4800-level courses in German with grade of B or better. 3 s.h.

Italian

6901 Special Topics in Italian. Arranged course for graduate students only. Prereq.: Two 4800-level courses in Italian with grade of B or better. 3 s.h.

Spanish

5855 Topics in Spanish Language and Linguistics. (3 s.h.)
5870 Topics in Spanish Literature: Spain. (3 s.h.)

5885 Topics in Hispanic Literature and Cinema. (3 s.h.)
5890 Topics in Spanish Literature: Spanish America. (3 s.h.)

6901 Special Topics in Spanish. Arranged course for graduate students only. Prereq.: Two 4800-level courses in Spanish with grade of B or better. 3 s.h.

Foundations of Education

Gunapala Edirisooriya, Chair
4107 Beeghly Hall
(330) 941-1436
gedirisooriya@ysu.edu

5875 Seminar in Foundations of Education. (1–3 s.h.)
5880 Special Topics in Foundations of Education. (1–3 s.h.)

6901 Philosophical Analysis of Education. A philosophical examination and critical reflection on educational theories, including a familiarization with historical contexts and socio/cultural conditions that fostered and related resistance to these theories. 3 s.h.

6902 Sociological Bases of Education. Selected sociological concepts and theories will form the basis for a critical analysis of schooling. Special attention will be given to the emergence of schools and to how schools serve diverse populations. 3 s.h.

6904 Introduction to Educational Research. Basic methodologies and techniques of educational research design and elementary statistical concepts are introduced. This course relies on critical thinking and analytical discourse for the examination and evaluation of research studies. 3 s.h.

6905 Educational Challenges in Historical Perspective. Critical analysis of first-person and other historical accounts of teachers, students, communities, and school reforms as they inform curricular, professional, and social challenges that face educators in their communities today. 3 s.h.

6982 Independent Study/Action Research. Individual investigation of advanced topics under the guidance of selected department faculty. May be repeated. 1–3 s.h.

6990 Advanced Seminar in Foundations of Education. Selected topics for an advanced study of a topic to be addressed from a sociological, historical, philosophical, assessment, or research perspective. Prereq.: Completion of a master's degree or advanced licensure. 1–3 s.h.

6995 Workshop in the Foundations of Education. A workshop designed for the development of particular skills and/or perspectives on a school-related topic. 1–3 s.h.

8102 Perspectives on Leadership Among Diverse Populations. An explorative study of constructs and concepts of cultural diversity within groups based on notions of class, race, sex, ethnicity, ableness, and religion/spiritualities. Consideration of expectations and organizational practices as informed by diversity issues. Prereq.: Doctoral admission and one of the following: FOUN 6901, 6902, or 6905. 3 s.h.

8104 Research Strategies in Educational Administration. An examination of major research methodologies and a preview of the different paradigms and assumptions that underlie controlled disciplined inquiries. Techniques associated with particular methodologies in educational

administration will be introduced, and their strengths and weaknesses will be analyzed. Prereq.: FOUN 6904. 3 s.h.

8110 Theories of Inquiry. Perspectives for critical analysis, investigation of ways of knowing, and an examination of criteria that have been used successfully for negotiating status and justifying claims within contested domains of inquiry. Prereq.: Doctoral admission and FOUN 6901. 3 s.h.

8112 Qualitative Research for Educators. Consideration of traditional and evolving qualitative method and literatures that apply to doctoral study of problems in teaching, school leadership, and school change. Prereq.: FOUN 8110. 3 s.h.

8114 Advanced Research Design and Statistics. An in-depth treatment of the major correlational, experimental, and quasi-experimental research designs and associated statistical analyses, including the design and analysis of surveys and factor analytic techniques. Experience in data analysis using SPSS or other statistical packages. Prereq.: FOUN 8110. 3 s.h.

Geography

Craig S. Campbell, Chair
2034 Cushwa Hall
(330) 941-3317
cscampbell@ysu.edu

5802 Biogeography. (3 s.h.)
5805 Remote Sensing I. (3 s.h.)
5806 Remote Sensing II. (3 s.h.)
5810 Geographic Information Science I. (3 s.h.)
5811 Geographic Information Science II. (3 s.h.)
5812 Global Positioning Systems and GIScience. (3 s.h.)
5814 3D Modeling and GIS. (3 s.h.)
5820 Special Problems in Geography. (1–3 s.h.)
5850 International Area Study. (3 s.h.)

6980 Geography Education Workshop. Intensive study and activity in a topic related to teaching geography. Grading is S/U. May be repeated with a different topic. Prereq.: Graduate standing and permission of the instructor. 1–3 s.h.

Geological and Environmental Sciences

Peter Norris, Interim Chair
2119 Moser Hall
(330) 941-2147
pnorris@ysu.edu

Geology

5802 Sedimentology and Stratigraphy. (3 s.h.)
5805 Special Problems in Geology. (1–4 s.h.)
5815 Geology and the Environment II. (3 s.h.)
5817 Environmental Geochemistry. (3 s.h.)

6900 Geology Workshop. Intensive study and activity in a topic related to geology or geoscience

education. May be repeated once. Grading is S/U. Prereq.: Permission of instructor. 1-6 s.h.

6901 Geology of Ohio and Pennsylvania. The geologic history and development of the rocks, structure, landforms, and mineral resources of Ohio and Pennsylvania. Prereq.: GEOL 5802 or equivalent. 3 s.h.

6910 Advanced Aquifer and Well Hydraulics. Computer-based test analyses; heat flow in the subsurface; and modeling of groundwater flow and contaminant transport. Prereq: Permission of instructor. 3 s.h.

6950 Selected Topics in Geology. Addresses specific topics in geology. The topics may vary and will be announced prior to registration. The course may be repeated provided different topics are addressed. 1–3 s.h.

Environmental Studies

5800 Environmental Impact Assessment. (3 s.h.)
5810 Environmental Safety. (1 s.h.)
5830 Risk Assessment. (3 s.h.)
5860 Environmental Regulations. (3 s.h.)

6900 Advanced Environmental Studies. A study of the principles and issues of environmental science, health, technology, and affairs. Topics will include contaminant chemistry; terrestrial and aquatic ecology; risks to human health; waste management; conservation; and sustainable development, energy, and pollution. Local, regional, and global issues will be studied. 3 s.h.

6901 Sources of Contamination. A study of the sources and fate and transport of air, water, and soil contaminants that have potential to adversely affect human health and the environment. Topics will include measurement of environmental parameters, data collection and reporting, interpretation of results, compliance issues, and economic implications. 3 s.h.

6910 Environmental Management Systems Standards (ISO 14001). Introduction to establishing a program to set internal industrial standards to identify, measure, and control the environmental impact of their activities, products, and services, including environmental policy, communication, legal requirements, training, documentation, and emergency preparedness. 1 s.h.

6920 Environmental Compliance. Regulatory compliance concerning operations of environmental and health and safety departments. RCRA permitting (NPDES and air emissions), landfilling, Right to Know, waste generation, storage, shipping (manifests and placarding), disposal of wastes, MSDS, OSHA regulations, safe work practices, hiring consultants (technical and legal), writing requests for proposals, and documenting and report writing. Prereq: ENST 5860, 6900, or equivalent. 3 s.h.

6921 Industry/Institutional Management for the Environmental Professional. A comprehensive background in management principles and operations relating to the environmental professions. Topics include budgeting, staffing, scheduling, leadership, and quality assurance/control. The student will learn to write, evaluate, and implement technical and cost proposals for contracts and grants, scopes of work, operations plans, sampling and analysis plans, health and safety plans, job descriptions, résumés, statements of qualifications, mission statements, meeting agendas (for professionals and the general public), and other written and oral communications (reports, memoranda, memoranda of understanding, policy briefs, press releases, fact sheets, requests for information). Prereq.: ENST 6900 or equivalent. 3 s.h.

6930 Risk Management. Using the principles of risk assessment, the student will learn to manage existing environmental risks in the workplace. Topics will include workplace health hazards; product liability; toxic tort claims; cleaning strategies for risk reduction such as brownfield redevelopment, voluntary action programs, alternative, and regulatory actions. Economic importance, resource allocation, technical feasibility, and public opinion will be discussed. Prereq.: ENST 6900 and 5830 or equivalent. 3 s.h.

6931 Ecological Risk Assessment. The student will examine environmental risks to nonhuman populations. Topics will include the study of measurements of adverse effects due to one or more stressors by examining population communities and ecosystems. Also, the class will study the following issues: threatened and endangered species, wetlands, endocrine disruption, multiple stressors, sediment and soil toxicity, conservative screening versus site-specific studies, and natural resource damage claims. Prereq.: ENST 6900 and 5830 or equivalent. 3 s.h.

6990 Thesis. Hours arranged. Applicable to master's degree in environmental studies. Research selected and supervised by departmental advisor and approved by graduate faculty of environmental studies program and graduate dean. May be repeated. 1–6 s.h.

6999 Special Topics in Environmental Science. Environmental science topics selected by faculty from fields of current research interest or of special emphasis. Prereq.: Permission of director. May be repeated with a different topic up to a total of six semester hours. 1–3 s.h.

Health and Human Services

Carol Mikanowicz, Program Director
1086 Cushwa Hall
(330) 941-3658
ckmikanowicz@ysu.edu

6900 Special Topics. Topics may vary from semester to semester and will be announced along with prerequisites and hours. May be repeated once for a total of six hours. 1–3 s.h.

6918 Program Planning and Evaluation. Principles of planning, developing, implementing, and evaluating programs for nonprofits to improve outcomes. Prereq.: College of Health and Human Services student or permission of instructor. 2 s.h.

6922 Planning and Fiscal Management. Principles and skills to conduct strategic plans, analyze and administer programs, develop budgets, and familiarize students with fiscal matters related to funding sources. Prereq.: CHHS 6918 or permission of instructor. 4 s.h.

6949 Community Health Practice. An examination of various physiological, psychological, and sociological factors which influence the health and provision of healthcare in a community. Prereq.: HSC 3791 Community Health or equivalent or permission of instructor. 3 s.h.

6950 Professional Codes in Healthcare. An analysis of professional codes and personal ethical beliefs in relationships of trust in contemporary healthcare. Prereq.: PHIL 3725 Biomedical Ethics, PHIL 6900, or 6901. 3 s.h.

6953 Health Behavior. A review of research studies, theories, and models which identify elements that influence behavior and determine factors which deter positive behaviors. Prereq.: CHHS 6949 or permission of instructor. 3 s.h.

6958 Health Services Issues. An examination of current philosophical, legal, and ethical issues

in healthcare with the inclusion of the role of health professionals in national health policy, and healthcare reform. Prereq.: CHHS 6949 or permission of instructor. 3 s.h.

6959 Foundation and Planning. Developing effective health promotion programs through a study of the history, philosophy, ethics, and values of health promotion, as well as the principles of effective planning incorporating needs assessment and formulation of objectives. Prereq.: C.H.H.S. student or permission of instructor. 3 s.h.

6960 Implementation and Evaluation. Examination of principles, methods, and materials of conducting and evaluating health promotion programs in various community settings. Work will be documented in evaluation reports. Prereq.: CHHS 6959 or permission of instructor. 3 s.h.

6980 Seminar. A synthesis of the role of education and management in health or human services. Emphasis on specific problems, concerns, or relative issues related to various work settings. Researched, developed, and presented using manuscript form and PowerPoint. Prereq.: CHHS 6958 and any research class or permission of instructor. 3 s.h.

6981 Grant Writing. Insight into the methods, strategies, and techniques of grant writing, with emphasis on the proposal components and exploration of funding sources. Each student will exhibit competence in planning, developing, and evaluating a proposal. Prereq.: CHHS 6918 and 6922 or 6959 and 6960; 6980 or permission of instructor. 2 s.h.

6990 Practicum. Supervised practicum in selected health and human services facilities offering health and human services administration experience. Prereq.: Approval of advisor. 1–2 s.h.

6999 Thesis. 1–4 s.h.

Health Professions

Joseph Mistovich, Chair
1074 Cushwa Hall
(330) 941-3326
jjmistov@cc.ysu.edu

5807 Epidemiology for the Health Care Practitioner. (3 s.h.)
5816 Environmental Regulations for Health Care. (3 s.h.)
5828 Grant Writing for Health Professions. (3 s.h.)
5840 Comparative Health Care Systems. (4 s.h.)
5893 Workshop in Health Education. (1–3 s.h.)

6948 Health Systems. A study of the historical, political, philosophical, legal, and organizational elements of the American health care delivery systems. 2 s.h.

6956 Organize and Administrate. Principles of planning, implementing, evaluating, and administering programs in various health settings. Prereq.: HSC 6948. 2 s.h.

History

Martha Pallante, Chair
520 DeBartolo Hall
(330) 941-1607
mipallante@ysu.edu

5806. American Architectural History I. (3 s.h.)

5807 American Architectural History II. (3 s.h.)
5810 The Conservation of the Historic Built Environment. (3 s.h.)

6900 Introduction to Historical Research. Instruction in the basic tools and techniques of historical research. Required of all candidates for advanced degrees in history. 3 s.h.

6902 American Historiography. An introduction to the professional study of American history, including an examination of the sources and nature of historical knowledge, historical criticism, and synthesis. Required of all candidates for advanced degrees with concentration in the field of American history. 3 s.h.

6904 European Historiography. An introduction to the professional study of European history, including an examination of the sources and nature of historical knowledge, historical criticism, and synthesis. Required of all candidates for advanced degrees with concentration in the field of European history. 3 s.h.

6910 Readings in American History. Readings in the standard works and monographic studies to meet the requirements of qualified graduate students who wish intensive concentration in specific areas of American history. May be repeated with permission of instructor. 3 s.h.

6912 Research Seminar in American Colonial History. Selected problems of early American history. May be repeated with permission of instructor. 3 s.h.

6913 Research Seminar in 19th-Century America. Selected problems of American history, 1800–1865. May be repeated with permission of instructor. 3 s.h.

6914 Research Seminar in 20th-Century America. Selected problems of American history in the 20th century. May be repeated with permission of instructor. 3 s.h.

6920 Readings in European Literature. Readings in the standard works and monographic studies to meet the requirements of qualified graduate students who wish intensive concentration in European history. May be repeated with permission of instructor. 3 s.h.

6921 Research Seminar in Medieval Culture and Society. The main intellectual and social currents of the Middle Ages. May be repeated with permission of instructor. 3 s.h.

6922 Research Seminar in Renaissance and Reformation. Trends and aspects of the Renaissance and Reformation. May be repeated with permission of instructor. 3 s.h.

6923 Research Seminar in 17th-Century Europe. Dutch Commercial Enterprise, the France of Louis XIV, Austria and the Empire, emergence of Brandenburg-Prussia, rise of modern science, the Age of Reason, and the development of the Baroque in arts and literature. 3 s.h.

6924 Research Seminar in 18th-Century Europe. Selected areas of the Enlightenment, Old Regime, and the French Revolution. May be repeated with permission of instructor. 3 s.h.

6925 Research Seminar in 19th-Century Europe. The Napoleonic and Post-Napoleonic Era and the rise of nationalism in Europe. May be repeated with permission of instructor. 3 s.h.

6926 Research Seminar in 20th-Century Europe. Investigation of the causes of the great world wars, the rise of totalitarianism, and the Cold War. May be repeated with permission of instructor. 3 s.h.

6927 Research Seminar in Russian History. Selected problems of Russian history. May be repeated with permission of instructor. 3 s.h.

6928 Research Seminar in British Empire. An examination of major problems confronting the British Empire after 1783. May be repeated with permission of instructor. 3 s.h.

6929 Research Seminar in English History. An examination of selected problems in the political, social, economic, and intellectual history of England. May be repeated with permission of instructor. 3 s.h.

6930 Readings in World History. Readings in the standard works and monographic studies to meet the requirements of qualified students who wish concentration in world history. May be repeated with permission of instructor. 3 s.h.

6932 Research Seminar in Middle Eastern History. This course will deal with topics from the ancient Near East down to the contemporary clash of nationalisms in the Middle East. May be repeated with permission of instructor. 3 s.h.

6934 Readings in African History. Readings in the standard works and monographic studies to meet the requirements of qualified graduate students who wish intensive concentration in African history. May be repeated with permission of instructor. 3 s.h.

6935 Research Seminar in African History. Selected problems in the political, social, economic, and intellectual history of Africa. May be repeated with permission of instructor. 3 s.h.

6939 Labor in U.S. History. Emphasis on work processes, workforce composition, and labor organizations in the industrial Midwest. 3 s.h.

6940 Oral History. Instruction in methods of taking, processing, and utilizing oral depositions relating to history. The course includes assignments in the field. May be repeated once. 3 s.h.

6941 American Material Culture. A discussion and analysis of the use and importance of material artifacts as texts for the recovery of the American past. The emphasis will be on nontraditional sources. Examples include children's books, sacred spaces, and foodways. 3 s.h.

6942 Applied History. This course provides an overview of the field of applied history. Topics include historic preservation, museum studies, heritage tourism, archives and related topics. 3 s.h.

6943 Practicum in Applied History. Examines problems in the field of applied history through student participation in a wide variety of community-based projects. Prereq.: HIST 3715 Introduction to Historic Preservation, HIST 6942, or instructor's permission. 3 s.h.

6944 Applied History Internship. Practical application of principles and methods in the field of applied history with the goal of producing a completed project. Internship to be selected by the student in conjunction with the Program Director. May be repeated once. Prereq.: HIST 6942 and approval of program director. 3 s.h.

6945 Interpretation and Preservation of the Industrial Built Environment. Through lectures and readings, this course examines and interprets the industrial built environment. This includes, but is not limited to, factories, neighborhoods, infrastructure, and commercial districts that make up the fabric of industrial communities. Prereq.: Graduate standing and completion of HIST 6942 or permission of instructor. 3 s.h.

6946 Historical Editing. Project-based approach to theoretical and practical aspects of editing historical and literary documents for both print and digital contexts. Topics include document selection, transcription, verification, and annotation, as well as the implications for teaching and learning using traditional print and electronic archives and texts. Cross-listed with ENGL 6946. 3 s.h.

6950 Studies in the Teaching of History. Investigation and discussion of the research and some of the underlying assumptions in the teaching of history, with implications for the teacher of social studies in the secondary schools and for the prospective history professor. Degree students may receive credit for this course only once. 3 s.h.

6951 Special Topics in History. Special topics in history selected by the staff. May be repeated up to six semester hours. 1–3 s.h.

6952 Independent Study. Individual study in concentrated areas of history under the supervision of a staff member. May be repeated. Prereq.: Permission of the instructor and the graduate director. 1–3 s.h.

6953 Research, Thesis. 1–6 s.h.

6955 Museum Curation and Interpretation I. An introduction to curatorial and interpretative work in a museum setting. Students will learn how to acquire and catalog objects and other materials; plan, research, and write an exhibit; and select objects and images for an exhibit. Prereq.: HIST 6942. 3 s.h.

6956 Museum Curation and Interpretation II. The exhibit planning begun in HIST 6955 will continue in this course, where the exhibit will actually be prepared and installed. Prereq.: HIST 6955 and permission of the instructor. 3 s.h.

6957 Special Topics in Applied History. This course will focus on topics selected by the applied history faculty. Prereq.: HIST 6942. 3 s.h.

6958 Historic Preservation Law. The study, theory, and practice of law as it relates to historic preservation. Prereq.: HIST 3715 or 6942. 3 s.h.

Human Ecology

Louise Pavia, Acting Chair
3042 Cushwa Hall
(330) 941-3345
lspavia@ysu.edu

Child and Family

5860 Coordination and Evaluation of Early Childhood Programs. (3 s.h.)

Food and Nutrition

5825 Current Nutrition Concepts. (3 s.h.)
5862 Food and Culture. (2 s.h.)
5862L Food and Culture Laboratory. (1 s.h.)
5872 Maternal and Child Nutrition. (3 s.h.)
5873 Nutrition and Aging. (3 s.h.)

6902 Nutrition Education. Examination of common nutrition assumptions and claims, techniques in teaching nutrition, development of teaching materials and plans, emphasizing integration into existing courses. Prereq.: Four semester hours in teaching methods or equivalent. 2 s.h.

Human Ecology

5870 Human Ecology Workshop. (1–3 s.h.)
5892 Community Programming in Human Ecology. (3 s.h.)
5893 Work and Family. (3 s.h.)
5895 International Studies in Human Ecology. (1–4 s.h.)

6904 Family Life Education. Focus on current issues and challenges impacting families; investigation of literature and application of theory; and development of techniques and materials for teaching family relationships and child development at various grade levels. Prereq.: Eight semester hours of child and/or family studies. 3 s.h.

6910 Special Topics in Human Ecology. Issues and problems of current interest chosen on the basis of need. Prereq.: CHFM 3731 or equivalent. 1–3 s.h.

6925 Current Concepts in Nutrition. Role of diet in disease prevention/health promotion; relationship of specific dietary factors to the occurrence of chronic diseases; and current recommendations for nutrient intake and diet pattern for reducing the risk of chronic diseases and disabilities. Prereq.: FNUT 6760 or permission of instructor. 3 s.h.

6950 Readings in Human Ecology. Individual investigation of a special topic; annotated bibliography required. Prereq.: Departmental approval. May be repeated for up to four semester hours. 1–2 s.h.

6999 Thesis. 1–6 s.h.

Human Performance and Exercise Science

Richard Walker, Chair
307 Beeghly Center
(330) 941-3650
rlwalker@ysu.edu

5994 Workshop in Physical Education/Athletics. (1–3 s.h.)

6900 Pedagogical Analysis. 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. 3 s.h.

6901 Sport in Society. 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.: HPES 4851 Organization and Administration of Human Performance and Exercise Programs or HPES 4855 History and Philosophy of Physical Education. 3 s.h.

6903 Curriculum Development. 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. 3 s.h.

6905 Contemporary Issues in Sport Pedagogy. A critical investigation and analysis of contemporary sport pedagogy issues, trends, problems, and concerns. 3 s.h.

6910 Teaching of Motor Skills. Analysis of research on motor learning and its application to the acquisition, the teaching, and the coaching of movement skills. Prereq.: HPES 3795 or equivalent. 3 s.h.

6920 Mechanical Analysis of Motor Movements. 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. Prereq.: HPES 3720 Kinesiology and Applied Anatomy or equivalent. 3 s.h.

6930 Laboratory Instrumentation. 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.: HPES 4899 Physiology of Exercise for Physical Education or equivalent. 2 s.h.

6935 Biodynamics and Human Performance. The physiology of human exercise responses to various stress conditions such as environmental, psychosocial, disease, and maximal performance. Prereq.: HPES 4899 Physiology of Exercise for Physical Education or equivalent. 2 s.h.

6940 Administration of Exercise Programs. 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.: HPES 3710 Physiology of Exercise or permission of instructor. 3 s.h.

6945 Technological Integration in Physical Education. 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. 2 s.h.

6990 Independent Study. Individual study and projects under faculty supervision. Prereq.: Permission of instructor and department chair. May be repeated to a maximum of three semester hours. 1–3 s.h.

Industrial and Systems Engineering

Martin Cala, Option Coordinator
2520 Moser Hall
(330) 941-1746
mcala@ysu.edu

5801 Operations Research I. (3 s.h.)
5820 Advanced Quality for Engineers. (3 s.h.)
5823 Automation and Computer-Aided Manufacturing. (3 s.h.)
5825 Advanced Engineering Economy. (3 s.h.)
5830 Human Factors Engineering. (3 s.h.)
5850 Operations Research II. (3 s.h.)
5880 Management of Technology. (3 s.h.)
5881 Basic Principles of Manufacturing Competitiveness. (3 s.h.)

6901 Optimization Techniques. A study of the theory of optimization and its application to problems from several engineering disciplines. The principles will be applied to constrained and unconstrained engineering problems. Algorithms will be developed for solving optimization problems, which can be formulated as linear, nonlinear, integer, or dynamic programming models. 3 s.h.

6902 Digital Simulation. A study of simulation methods using digital computers, random number generation, Monte Carlo techniques, queuing models, and analysis of simulation output. The student will be provided the opportunity to simulate moderately complex systems on digital computers. Primary emphasis will be on models of technical, scientific, and economic systems. 3 s.h.

6903 Engineering Statistics. Development and application of stochastic models of engineering systems. Elementary probability models applied to decision making under uncertainty. Development and use of theoretical probability distributions for describing stochastic systems. Models for point and confidence interval estimation and models for correlation analysis applied to engineering problems. 3 s.h.

6905 Applied Statistics for Design, Quality, and Productivity. Review of probability and statistics, uncertainty and decision making, statistical inference, and analyzing sources of variation. Risk and reliability, risk assessment, robust and quality design, regression analysis, and analysis of variance. Design of experiments, single-factor and multifactor experiments, design of experiments for product characteristics, process characteristics, and process optimization. General statistical process control, special charts and sampling techniques for control, monitoring, and auditing quality. Economic issues in process/quality control. Prereq.: ISEN 3710 Engineering Statistics or equivalent. 3 s.h.

6910 Workshop in Industrial/Manufacturing Engineering. For professionals from business and industry, and students. Specific topics will be announced each time the workshop is offered. Credit hours based on frequency and duration of workshop meetings. 1–6 s.h.

6930 Microcomputer Models for Deterministic Engineering Systems. Microcomputer model development, implementation, evaluation, and application for deterministic engineering systems. Recognition of engineering systems amenable to analysis as deterministic microcomputer models. Determination of model structure, identification of model parameters, verification of model validity, exercising the model, and interpretation of results. 3 s.h.

6935 Decision Analysis for Engineering. Review of probability and statistics, subjective probability, probability models, using data, Monte Carlo simulation, and value of information. Introduction to decision analysis, elements of decision problems, structuring decisions, making choices, creativity, and decision making. Risk attitudes, utility axioms, paradoxes, and conflicting objectives. Prereq.: ISEN 3710 Engineering Statistics or equivalent, or permission of instructor. 3 s.h.

6970 Advanced Manufacturing Processes I. Advanced manufacturing processes for metallic materials. Included are continuous casting, powder techniques, fluidized bed reactors, and directional solidification. 3 s.h.

6971 Advanced Manufacturing Processes II. Advanced manufacturing processes for nonmetallic materials. Included are sintering, slip casting, plastic forming techniques, and extrusion of nonplastic materials. 3 s.h.

6990 Special Topics. Special topics in industrial/manufacturing systems engineering covering

areas not otherwise available. Topics are selected by the faculty from fields of current research interest or special emphasis and may vary from semester to semester. May be repeated for a maximum of six semester hours. 3 s.h.

Information Technology

5826 Teaching Intensive and Cooperative Business Education. (3 s.h.)
5875 Advanced Multimedia Authoring. (3 s.h.)

Management

Rammohan R. Kasuganti, Chair
646 Williamson Hall
(330) 941-3070
rrkasuganti@ysu.edu

5825 Microcomputers in Business. (3 s.h.)
5845 Work in America. (3 s.h.)
5835 Systems Analysis. (3 s.h.)
5860 Comparative Management. (3 s.h.)
5865 Database Management Systems. (3 s.h.)
5875 Decision Support/Expert Systems. (3 s.h.)

6900 The Foundation of Management. A study of the fundamental concepts and functions of management. Each functional area is analyzed and the interrelationship of the functions is emphasized. Topics such as organization design, authority-power relationships, control systems, group behavior, participative management, and span of control will be covered. Prereq.: Permit required. 2 s.h.

6910 Business Internship. Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective M.B.A. course. Prereq.: Completion of level I M.B.A. coursework and six semester hours of level II M.B.A. coursework. 1–3 s.h.

6916 Quantitative Analysis for Business Decisions. Application of computer-based mathematical models to managerial decision making with emphasis on problem formation, sensitivity analysis, and other aspects of model interpretation. Prereq.: ECON 6900 and MGT 6900. 2 s.h.

6917 Information Systems for Management. An introduction to the design, implementation, and utilization of information systems. Emphasis is on the managerial and decision support aspects of information systems as well as current issues. Prereq.: MGT 6900. 2 s.h.

6920 Global Business Environments and Operations. The environments and operating issues affecting firms doing business in the global arena. Economic, cultural, political, legal, and competitive environments are covered, along with the global management of functional areas including finance, marketing, operations, and human resources. Cross-listed as FIN 6920 and MKTG 6920. Prereq.: Completion of all level I M.B.A. coursework, MGT 6921, MKTG 6942, FIN 6921. 3 s.h.

6921 Operations Management. Product design and selection, process planning, plant location, plant layout, methods study and labor standards, forecasting, aggregate planning and master scheduling, inventory control, scheduling, and quality control. Prereq.: MGT 6916. 3 s.h.

6925 Quality Management. Study of philosophies, strategies, and techniques used in quality

management (QM). QM and its relationship to business strategy and other functional areas. Pedagogical emphasis on case studies and projects. Prereq.: MGT 6921 and MKTG 6900. 3 s.h.

6954 International Management. Planning, organizing, and control within the context of a multinational corporation, with emphasis upon problems of adaptation to different sociological, cultural, legal, political, and economic environmental characteristics. Prereq.: MGT 6961, plus six semester hours of level II M.B.A. coursework. 3 s.h.

6960 Strategic Issues Facing Multinational Enterprises in the 21st Century. This course focuses on strategic issues facing multinational enterprises to enable students to gain insight into a range of conceptual models and empirical methodologies in the field of global strategic management and to apply these concepts and models in the analysis of practical case situations. Prereq: MGT 6920. 3 s.h.

6961 Optimizing Human Performance in Organizations. The study of individual and group motivation theories as applied to organizations with the intention of extracting optimum performance. Topics include strategic human resource management, recruitment, selection, employee testing, performance appraisal, and the design of appropriate reward systems. Prereq.: MGT 6900. 3 s.h.

6962 Organizational Staffing Process. Brief survey of the field of human resource management, followed by intensive analysis of programs for personnel acquisition, maintenance, and development. Emphasis on determination of organizational needs and the development and effective utilization of available human skills and competencies. Examination of applicable federal and other employment legislation. Prereq.: MGT 6961. 3 s.h.

6963 Industrial Relations. Analysis of managerial and organizational aspects of employee relations arising out of relations with union negotiation, application of contracts, living with contracts, and pertinent legislative matters. Prereq.: MGT 6961. 3 s.h.

6965 Strategic Management and Leadership. The correlation of theory and practice in the development of business policy. Emphasis on the problems of executive management, decision making, and administrative action. Prereq: 3.0 M.B.A. GPA; ACCT 6902, BUS 6920 (BUS 6920 may be taken concurrently with MGT 6965), FIN 6921, MKTG 6942, MGT 6921, MGT 6961. Must be taken concurrently with MGT 6967. 3 s.h.

6967 The M.B.A. Integrated Project. Integrating the functional areas of business using a simulation game or similar project. Course is to be taken concurrently with MGT 6965 Strategic Management and Leadership, the M.B.A. capstone course. 1 s.h.

6968 Special Topics in Management. Topics may vary from semester to semester and will be announced along with prerequisites and hours. May be repeated. 1–3 s.h.

6969 Seminar in Management. Analysis of long-range planning, organizational development, systems management, executive decision making, organizational behavior, control systems, and others. Prereq.: MGT 6961 plus six semester hours of level II M.B.A. courses. 2 s.h.

6970 Entrepreneurship. An in-depth analysis of the elements of entrepreneurship, the process of planning and starting a business, the cross-functional skills required to manage a successful start-up, and the special circumstances of small business management. Cross-listed as MKTG 6970. Prereq.: Six semester hours of level II M.B.A. coursework. 3 s.h.

6971 Business and Society. Complex and dynamic interrelationships between business and society: social, cultural, legal, ethical, economic, and technological issues, philosophies, and points of view which influence business. Prereq.: MGT 6961. 3 s.h.

6996 Research Problems. Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project. Prereq.: Fifteen hours of level II M.B.A. courses or permission of M.B.A. director. 1–3 s.h.

Marketing

James Kohut, Chair
536 Williamson Hall
(330) 941-3149
jk4911@aol.com

6900 Foundations of Marketing. A basic examination of marketing as a business process by which products are matched with markets and through which transfers of ownership are affected. Prereq.: Permit required. 2 s.h.

6910 Business Internship. Provides graduate students the opportunity to relate theory to practice through on-the-job work experience with a participating organization. The internship will serve as an elective M.B.A. course. Prereq.: Completion of level I M.B.A. coursework and six semester hours of level II M.B.A. coursework. 1–3 s.h.

6920 Global Business Environments and Operations. The environments and operating issues affecting firms doing business in the global arena. Economic, cultural, political, legal, and competitive environments are covered, along with the global management of functional areas, including finance, marketing, operations, and human resources. Cross-listed as FIN 6920 and MGMT 6920. Prereq.: Completion of all level I M.B.A. coursework, MGT 6921, MKTG 6942, FIN 6921. 3 s.h.

6942 Strategic Marketing Management. A managerial approach to the planning and implementation of marketing with emphasis on the integration of the marketing function with other business activities. Through conceptual material and case analysis, students develop abilities to analyze markets and design effective marketing strategies in the areas of product, promotion, pricing, and distribution. Prereq.: Completion of all level I M.B.A. coursework. 3 s.h.

6945 Integrated Marketing Communications Management. A focused study of the promotional aspects of marketing decisions is presented along with how each part (advertising, sales promotion, public relations, and personal selling) of the promotional mix works synergistically with the other parts to create an integrated message and/or image the marketer. Prereq.: MKTG 6942. 3 s.h.

6946 Consumer Behavior. Analysis of the behavior of consumers, both in groups and as individuals, in order to assist the marketing manager in areas such as selection of target markets, advertising and media strategies, personal selling, product development, marketing research; pricing, and distribution decisions. In addition to business writings, relevant material from psychology, sociology, economics, and anthropology will be utilized to familiarize the student with the behavior of the consumer in the marketplace. Prereq.: MKTG 6942. 3 s.h.

6947 Marketing and Social Responsibility. Current marketing problems created by emerging social, environmental, and consumer pressures and the need to balance consumer satisfaction, profits, and social responsibility. Topics include selling practices, product safety, consumerism,

environmental issues, disadvantaged market segments, product quality, consumer advocates, and social critics. Prereq.: MKTG 6900 or equivalent. 3 s.h.

6949 International Marketing Management. The functions, problems, and decision-making processes of marketing executives in business organizations involved in foreign markets are studied. Students are given the opportunity to develop foreign market evaluations applying classroom knowledge to practical decision problems. Involvement of the student on an individual basis is stressed. Prereq.: MKTG 6942. 3 s.h.

6950 Marketing Research and Analysis. The use of exploratory, descriptive, and experimental research methods and techniques to solve marketing problems in the context of role-playing, cases and projects. Emphasis is on understanding the research process; defining management decision problems; formulating research problems and data requirements; selecting proper research methods and techniques; collection, analysis, and interpretation of data; and reporting results. Prereq.: ECON 6900 and MKTG 6942. 3 s.h.

6967 The M.B.A. Integrated Project. Integrating the functional areas of business using a simulation game or similar project. Concurrent: MGMT 6965. 1 s.h.

6968 Special Topics in Marketing. Topics may vary from semester to semester and will be announced along with prerequisites and hours. Course may be repeated. 1–3 s.h.

6970 Small Business Entrepreneurship. An in-depth analysis of the elements of entrepreneurship, the process of planning and starting a business, the cross-functional skills required to manage a successful start-up, and the special circumstances of small business management. Cross-listed as ACCT 6970 and MGMT 6970. Prereq.: FIN 6900, MGMT 6900, and MKTG 6900. 3 s.h.

6996 Research Problems. Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project. Prereq.: Fifteen hours of level II M.B.A. coursework or permission of M.B.A. director. 1–3 s.h.

Mathematics and Statistics

Nathan P. Ritchey, Chair
1059 Cushwa Hall
(330) 941-3302
nate@math.ysu.edu

Mathematics

5821 Topics in Abstract Algebra. (3 s.h.)
5822 Abstract Algebra II. (3 s.h.)
5825 Advanced Linear Algebra. (3 s.h.)
5828 Number Theory. (3 s.h.)
5832 Euclidean Transformations. (3 s.h.)
5835 Combinatorics and Graph Theory. (3 s.h.)
5843 Theory of Probability. (3 s.h.)
5844 Theory of Statistics. (3 s.h.)
5845 Operations Research. (3 s.h.)
5851 Topics in Analysis. (3 s.h.)
5852 Real Analysis II. (3 s.h.)
5855 Ordinary Differential Equations. (3 s.h.)
5860 Topics in Numerical Analysis. (3 s.h.)

5861 Numerical Analysis II. (3 s.h.)
5875 Complex Variables. (3 s.h.)
5880 Topology. (3 s.h.)
5884 Mathematical Logic. (3 s.h.)
5895 Selected Topics in Mathematics. (3 s.h.)

6900 Mathematics Workshop. Intensive study and activity in a topic related to mathematics, its applications, or the teaching of mathematics. May be repeated. Grading is S/U. Prereq.: Permission of graduate coordinator. 1–6 s.h.

6905 Teaching Practicum. Intensive preparation for teaching lower-level mathematics courses, featuring formal instruction and orientation on teaching issues, evaluated presentations, mentored classroom instruction, and weekly teaching seminars. Topics include course design, policies, syllabi, grading; classroom teaching problems; orientation in Mathematics Assistance Center, specific lower-level mathematics courses, online tutorial services. Required of and limited to graduate assistants in the Department of Mathematics and Statistics. To be taken each fall semester student is a graduate assistant. Grading is S/U. Does not count toward credit in the program. 1 s.h.

6915 Mathematical Foundations. Order-theoretic and monadic foundations of mathematics: ordered structures; topologies; powerset operators of a function; applications to continuity, compactness, algebra, logic, and calculus. Prereq.: MATH 3721 Abstract Algebra I and MATH 3751 Real Analysis I, or permission of graduate coordinator. 3 s.h.

6920 Advanced Topics in Algebra. A continuation of MATH 5821 with special emphasis on groups acting on sets, Sylow's Theorem and its applications, ring homomorphisms, ideals, and polynomial rings. Credit will not be given for MATH 5822 and 6920. Prereq.: MATH 3721 or 5821. 3 s.h.

6925 Advanced Numerical Analysis. Eigenvalue-eigenvector analysis, boundary value problems, and approximation methods for partial differential equations, and additional topics. Prereq.: MATH 3720 Linear Algebra and Matrix Theory, MATH 3760 Numerical Analysis I, knowledge of high-level programming language, and either MATH 5852 or 5861, or permission of graduate coordinator. 3 s.h.

6928 Advanced Number Theory. Advanced study of number theory: theory and distribution of primes, computational number theory, and additive number theory. Prereq.: MATH 5828. 3 s.h.

6930 Differential Geometry. Classical differential geometry of curves and surfaces, differentiable manifolds with tensors. Prereq.: MATH 5852. 3 s.h.

6933 Geometry. General theory of incidence structures and modern geometric theories. Prereq.: MATH 3721 Abstract Algebra I and either MATH 4830 Foundations of Geometry or MATH 5835. 3 s.h.

6937 Graph Theory. Advanced study of graph theory, graph algorithms, and applications of graph theory. Topics may include Ramsey theory, extremal graph theory, flows and networks, planarity, graph colorings, and combinatorial optimization. Prereq.: MATH 5835. 3 s.h.

6938 Combinatorics. Advanced study of combinatorial models. Topics may include extremal set theory, matroids, inversion formulae, counting techniques, generating functions, difference

sets, combinatorial designs, and incidence structures. Prereq.: MATH 3721 Abstract Algebra I and MATH 5835. 3 s.h.

6940 Advanced Data Analysis. Identical to STAT 6940. 3 s.h.

6942 Advanced Operations Research. Topics may include integer programming, advanced linear programming, nonlinear programming, dynamic programming, queuing theory, Markov analysis, game theory, and forecasting models. Prereq.: MATH 5845 and STAT 3743 Probability and Statistics. 3 s.h.

6943 Mathematical Statistics I. Identical to STAT 6943. 3 s.h.

6944 Mathematical Statistics II. Identical to STAT 6944. 3 s.h.

6945 Stochastic Processes. Identical to STAT 6945. 3 s.h.

6948 Linear Models. Identical to STAT 6948. 3 s.h.

6955 Advanced Differential Equations. Proofs of existence and uniqueness of nonautonomous, nonlinear equations. Additional topics may include advanced linear systems, partial differential equations, and integral equations. Prereq.: MATH 5852 and either MATH 3705 Differential Equations or MATH 5855, or permission of graduate coordinator. 3 s.h.

6965, 6966 Abstract Analysis I, II. Lebésgue integration and measure on the real line. General measure theory and functional analysis, including the Radon-Nikodym theorem, the Fubini theorem, the Hahn-Banach theorem, the closed graph and open mapping theorems, and weak topology. Prereq.: MATH 5852 and either 5880 or 6915 for 6965, 6965 for 6966, or permission of graduate coordinator. 3+3 s.h.

6975 Complex Analysis I. Analytic and meromorphic functions of a complex variable, contour integration, the Cauchy-Goursat theorem, Taylor and Laurent series, residues and poles, conformal mapping. Prereq.: MATH 3751 Real Analysis I, or permission of graduate coordinator. Credit will not be given for both MATH 5875 and 6975. 3 s.h.

6976 Complex Analysis II. The Cauchy theorem, the Weierstraß, Mittag-Lefler, Picard, and Riemann theorems, Riemann surfaces, harmonic functions. Prereq.: MATH 5875 or 6975, or permission of graduate coordinator. 3 s.h.

6980 Topology I. Basic concepts of topological spaces and mappings between them, including compactness, connectedness, and continuity. Prereq.: MATH 3721 Abstract Algebra I and MATH 3751 Real Analysis I, or permission of graduate coordinator. Credit will not be given for both MATH 5880 and 6980. 3 s.h.

6981 Topology II. Separation, metrization, compactification. Additional topics will be selected from point-set topology, fuzzy topology, algebraic topology, combinatorial topology, topological algebra. Prereq.: MATH 5880 or 6980, or permission of graduate coordinator. 3 s.h.

6984 Mathematical Logic I. Syntax and semantics of propositional and first-order calculi with applications. Prereq.: MATH 3721 Abstract Algebra I or MATH 3751 Real Analysis I or PHIL 3719 Symbolic Logic, or permission of graduate coordinator. Credit will not be given for both MATH 5884 and 6984. 3 s.h.

6985 Mathematical Logic II. Topics may include elements of recursive function theory, Gödel's incompleteness theorem, decision problems for theories, order-theoretic models, fuzzy semantics. Prereq.: One of MATH 2683 or 6915, and one of 5884 or 6984; or permission of graduate coordinator. 3 s.h.

6989 Doctoral Qualifier Problems. Intense review of undergraduate and graduate level linear algebra, abstract algebra, analysis, complex variable, and topology with emphasis on sample problems from qualifiying exams at regional doctorate institutions. Prereq.: Permission of graduate coordinator. 3 s.h.

6990 Independent Study. Study under the supervision of a staff member. Prereq.: Consent of graduate coordinator. May be repeated. 3 s.h.

6995 Special Topics. Specialized topics selected by the staff. Prereq.: Permission of graduate coordinator and department chair. May be repeated up to 12 semester hours. 3 s.h.

6996 Mathematical Project. Individual research project culminating in a written report or paper, though not as broad in scope as a thesis. May be repeated once if the second project is in a different area of mathematics. 1–3 s.h.

6999 Thesis. A student may register for six semester hours in one semester or for three semester hours in each of two semesters. 3–6 s.h.

7005 Advanced Topics in Categorical Topology. Content varies with each offering. Implements ideas from MATH 6915, 6980, 6981, and studies categorical methods in topology and related concrete categories. Emphasis on current literature and open questions. Prereq.: MATH 6915, 6980, 6981, or equivalent, or permission of the graduate coordinator. May be repeated with approval of graduate coordinator. 3 s.h.

7015 Advanced Topics in Foundations of Topology. Content varies with each offering, implements ideas from MATH 6915, 6980, 6981, 6984, and studies foundations of topology from a variety of viewpoints (algebraic, categorical, logical, order theoretic, powerset theoretic, set theoretic, etc.). Emphasis on current literature and open questions. Prereq.: MATH 6915, 6980, 6981, 6984, or equivalent, or permission of graduate coordinator. May be repeated with approval of graduate coordinator. 3 s.h.

7025 Advanced Topics in General Topology. Content varies with each offering, implements ideas from MATH 6915, 6980, 6981, and studies various topics in point-set topology. Emphasis on current literature and open questions. Prereq.: MATH 6951, 6980, 6981, or equivalent, or permission of graduate coordinator. May be repeated with approval of graduate coordinator. 3 s.h.

7035 Advanced Topics in Lattice-Valued Topology. Content varies with each offering. Implements ideas from MATH 6915, 6980, 6981, and studies topology from the standpoint of lattice-valued (fuzzy) subsets. Emphasis on current literature and open questions. Prereq.: MATH 6915, 6980, 6981, or equivalent, or permission of the graduate coordinator. May be repeated with approval of graduate coordinator. 3 s.h.

7045 Advanced Topics in Topological Analysis. Content varies with each offering. Implements ideas from MATH 6915, 6965, 6966, 6980, 6981, and studies the overlap between topology and abstract analysis (topological games, topological groups, separate versus joint continuity, etc.). Emphasis on current literature and open questions. Prereq.: MATH 6915, 6965, 6966, 6980, 6981, or equivalent, or permission of graduate coordinator. May be repeated with approval of graduate coordinator. 3 s.h.

7055 Seminar in Topology and Abstract Analysis. Content varies with each offering. Implements ideas from MATH 6915, 6930, 6965, 6966, 6980, 6981, 6984, and focuses on current research activities of seminar participants. Student registrants are expected to make at least one major presentation each month of the term. Prereq.: Permission of graduate coordinator. May be repeated with approval of graduate coordinator. 3 s.h.

Statistics

5802 Theory of Interest. (3 s.h.)
5817 Applied Statistics. (3 s.h.)
5840 Statistical Computing. (3 s.h.)
5843 Theory of Probability. (3 s.h.)
5844 Theory of Statistics. (3 s.h.)
5846 Categorical Data Analysis. (3 s.h.)
5847 Nonparametic Statistics. (3 s.h.)
5848 Regression Analysis. (3 s.h.)
5849 Multivariate Statistical Analysis. (3 s.h.)
5895 Selected Topics in Statistics. (2–4 s.h.)

6940 Advanced Data Analysis. An overview of techniques in data analysis. Includes a strong emphasis on visual interpretation of data. Topics include one or more samples, proportions, odds, regression, and multiple comparisons. Prereq.: MATH/STAT 5844, or permission of graduate coordinator. 3 s.h.

6943 Mathematical Statistics I. Random variables, their distributions and densities. Families and exponential families of distribution. Independence, joint distributions, conditional probability and expectation. Convergence and limit theorems. Prereq.: MATH 3751 Real Analysis I or permission of graduate coordinator. Credit will not be given for both MATH/STAT 5843 and 6943. 3 s.h.

6944 Mathematical Statistics II. A study of theories and properties of statistical hypothesis testing and estimation, including maximum likelihood method, likelihood ratio tests, sufficiency, and related topics. Prereq.: MATH/STAT 5843 or 6943; or permission of graduate coordinator. Credit will not be given for both MATH/STAT 5844 and 6944. 3 s.h.

6945 Stochastic Processes. An advanced study of stochastic processes. Topics include Markov chains; Poisson process; nonhomogeneous Poisson processes; renewal theory; conditional probability and expectation. Prereq.: MATH/STAT 5843 or 6943, or permission of graduate coordinator. 3 s.h.

6946 Sampling Methods. Methods for survey and design and analysis. Topics include basic theory of surveys, descriptions of data, sampling distributions, design of survey, sources of error, questionnaire design, and sampling techniques. Prereq.: STAT 5817 or permission of graduate coordinator. 3 s.h.

6948 Linear Methods. A study of linear statistical methods of the relationship between analysis of variance and regression and the assumptions underlying the analysis of variance. Prereq.: MATH 3720 Linear Algebra and Matrix Theory and either MATH/STAT 5844 or 6944, or permission of graduate coordinator. 3 s.h.

6949 Design and Analysis of Experiments. Fundamental principles of design and analysis of experiments. Topics include blocking; multifactor testing; multiple comparisons; repeated measures; crossing and nesting designs. Prereq.: MATH/STAT 5844 or 6944; or permission of

graduate coordinator. 3 s.h.

Mechanical Engineering

Daniel H. Suchora, Chair
2515 Moser Hall
(330) 941-3015
dhsuchora@ysu.edu

5811 Solar Engineering. (3 s.h.)
5825 Heat Transfer II. (3 s.h.)
5836 Fluid Power and Control. (3 s.h.)
5852 Stress and Strain Analysis II. (3 s.h.)
5868 Failure Analysis Using the SEM. (3 s.h.)
5872 Engineering Acoustics. (3 s.h.)
5884 Finite Element Analysis. (3 s.h.)
5892 Control of Mechanical Systems. (3 s.h.)

6900 Special Topics. Special topics and new developments in mechanical engineering. Subject matter and credit hours to be announced in advance of each offering. Prereq.: As announced or permission of instructor. May be taken three times. 2–4 s.h.

6904 Advanced Thermodynamics. Laws of equilibrium thermodynamics; relations between properties and aspects of the Second Law. Exergy analysis. Macroscopic and microscopic considerations for the prediction of properties. Microscopic description based on classical and quantum statistics. General stability criteria, statistical equilibrium, and trend toward equilibrium fluctuations. Prereq.: Permission of graduate advisor. 3 s.h.

6915 Failure Analysis. Advanced methods in failure analysis of metallics, ceramics, polymers, and composites. Numerous practical examples will be discussed. Individual student projects using scanning electron microscopy are required. Three hours lecture and three hours laboratory. 3 s.h.

6925 Computational Heat Transfer. Numerical modeling techniques and methods in heat transfer. Computational analysis of conduction and convection by the finite element method, finite difference method, and the method of coordinate transformation. Prereq.: MATH 3705 Differential Equations and MECH 3725 Heat Transfer I, or permission of instructor. 3 s.h.

6930 Advanced Fluid Mechanics and Heat Transfer. Viscous and inviscid flows, Navier-Stokes equations, Euler equations, and complex variables methods. Analytic solutions to advanced heat transfer problems, advanced boundary-value problems. Prereq.: MECH 3725 Heat Transfer I or equivalent. 3 s.h.

6945 Advanced Dynamics. Three-dimensional vector statics; kinematics and kinetics of particles and rigid bodies; energy, momentum, and stability. LaGrange's equations of motion for particles and rigid bodies impulse; small oscillations; nonholonomic and dissipative systems. Prereq.: Permission of graduate advisor. 3 s.h.

6952 Applied Elasticity. Equations or equilibrium, compatibility and boundary conditions—their applications to plane stress and plane strain problems. Stress functions, strain energy methods, stress distribution in anile symmetrical bodies; special problems in structures involving torsion and bending of prismatical bars. Prereq.: MECH 3751 Stress and Strain Analysis I or equivalent, or permission of graduate advisor. 3 s.h.

6962 Mechanical Design Analysis. The study of analytical aspects and the application of engineering science topics to machine elements and machinery. Some case studies in mechanical design. Prereq.: Permission of graduate advisor. 3 s.h.

6963 Advanced Stress Analysis. Theory and engineering applications of the most recent techniques of experimental stress analysis, brittle coatings, photoelasticity, strain gauges, photostress. Prereq.: MECH 3751 Stress and Strain Analysis I or equivalent or permission of graduate advisor. 3 s.h.

6983 Modern Power Sources. Analytical and descriptive study of modern power plants. Combustion and environmental problems with fossil-fueled power plants. Electromagnetic circuits and devices with emphasis on the principles of electromechanical energy conversions. Cross-listed as CHEN 6983 and ELEGR 6983. Prereq.: Permission of graduate advisor. 3 s.h.

6985 Electromechanical Motion Devices. Thermodynamics of batteries, and electric and fuel cells. Power from nuclear isotopes. Features common to rotating electromagnetic fields. Analysis and design of electromechanical power components. Logical circuit design with I/O structure and interface. Cross-listed as CHEGR 6985 and ELEGR 6985. 3 s.h.

6990 Thesis. 2–6 s.h.

6991 Thesis. 2–6 s.h.

6992 Graduate Projects. Analysis, design, research, or other independent investigation on projects selected with the advice and approval of the student's graduate committee. 3 s.h.

Music

Michael Crist, Chair
3004 Bliss Hall
(330) 941-1439
mrcrist@ysu.edu

5800 A, B Performance Minor. (1+1 s.h.)
5814 Selected Topics in Music Education. (2 s.h.)
5821, 5822 Composition for Minors. (2+2 s.h.)
5828 Music Technology. (3 s.h.)
5830 Materials of Twentieth-Century Music. (3 s.h.)
5831 Modal Counterpoint. (3 s.h.)
5832 Tonal Counterpoint. (3 s.h.)
5833 Theory Seminar. (3 s.h.)
5834 Electronic Music. (3 s.h.)
5840 Instrumentation. (3 s.h.)
5841 Music Workshop. (1–3 s.h.)
5858 Piano Pedagogy. (3 s.h.)
5860 Keyboard Literature. (3 s.h.)
5871 Baroque Music. (3 s.h.)
5872 Eighteenth Century and Viennese Classical School. (3 s.h.)
5873 Opera History. (3 s.h.)
5874 Nineteenth-Century Romantic Period. (3 s.h.)
5878 Selected Topics in Music History. (3 s.h.)
5879 Vocal Literature. (3 s.h.)

5880 Vocal Pedagogy. (1 s.h.)

Music Performance

For music performance majors in the following areas:

- Brass Instruments—baritone horn, French horn, trombone, trumpet, and tuba
- Conducting
- Keyboard Instruments—harpsichord, organ, and piano
- Percussion Instruments
- String Instruments—guitar, string bass, viola, violin, and violoncello
- Voice
- Woodwind Instruments—bassoon, clarinet, flute, oboe, and saxophone

1) Assignments of students to teachers are made by the coordinators of keyboard, voice, string, woodwind, brass, and percussion studies. Requests for change of teacher should be addressed to the director of the Dana School of Music.

2) Students registered for four-semester-hour courses receive 50 minutes of individual instruction weekly and practice three hours daily. Students registered for three-semester-hour courses receive 50 minutes of individual instruction weekly and practice two hours daily. Students registered for two-semester-hour courses receive 50 minutes of individual instruction weekly and practice one hour daily. Students registered for three-semester-hour and four-semester-hour courses are also required to attend the weekly seminars held by their individual instructors.

3) Students in the performance major courses 6905–6906 must present a public recital of at least 50 minutes of music. The prerecital hearing must be held during the semester in which the student is enrolled in Music 6906. The supporting document must be completed during the semester in which the student is enrolled in Music 6905. In the event that the paper is not completed during the 6905 semester, a PR grade will be issued for the course. Further information is available from the faculty member in charge of graduate studies in music.

4) Students who fail to meet the standards of the faculty in the area of their performance study may be required to reduce the number of credit hours for which they register in subsequent semesters or they may be required to withdraw completely from the course sequence.

6901, 6902 Performance Minor. For music education majors. Students receive 50 minutes of individual instruction weekly and practice one hour daily. Prereq.: Music 2606 or equivalent. 2+2 s.h.

6903, 6904 Performance Concentration. Music performance through individual instruction. Students receive 50 minutes of individual instruction weekly, practice two hours daily, and are required to attend the weekly seminars held by their individual instructors. Prereq.: Music 3706 or equivalent. 3+3 s.h.

6905, 6906 Performance Major. For music performance majors. Students receive 50 minutes of individual instruction weekly, practice three hours daily, and are required to attend the weekly seminars held by their instructors. Prereq.: Music 4806 or equivalent. 4+4 s.h.

Music Theory and Composition

6903, 6904 Advanced Composition. Individual instruction in the composition of larger forms for chorus, orchestra, or chamber ensembles. Prereq.: Permission of instructor. 3+3 s.h.

6913 Pedagogy of Theory. The study and critical analysis of methods for teaching harmony, sightsinging, and ear training. 3 s.h.

6916 Fugue. Analysis of the fugal style used in 17th-century trio sonatas and in both volumes of *The Well-Tempered Clavier* by J. S. Bach; writing three to four voice fugues employing imitative and invertible counterpoint. 3 s.h.

6921, 6922 Seminar in Materials of Music. The study of techniques used in musical composition with emphasis in analyzing and writing. Course requirements will be determined by student's field of interest. Can be repeated for credit. Admission to course by permission of instructor. 3+3 s.h.

6930 Baroque Music Styles. Stylistic and structural analysis of compositions from the Baroque Era. 3 s.h.

6931 Classic Music Styles. Stylistic and structural analysis of compositions from the Classic Era. 3 s.h.

6932 Romantic Music Styles. Stylistic and structural analysis of compositions from the Romantic Era. 3 s.h.

6933 Twentieth-Century Music Styles. Stylistic and structural analysis of compositions from the 20th century. 3 s.h.

6935 Jazz Theory. This course examines the process of jazz improvisation and undertakes a critical evaluation of the existing modes of analyzing improvisation. Students will learn to differentiate between pedagogical, speculative, and analytical theory and to apply appropriate analytical techniques according to the musical context. Emphasis will be placed on the development of critical listening and reading skills. 3 s.h.

6936 Jazz Composition. Students will study the styles of leading jazz composers and arrangers in the process of developing their craft and their own style. Assignments will include a portfolio of compositions and analysis of compositions by Jelly Roll Morton, Duke Ellington, Thad Jones, and others. 3 s.h.

Music History

6940 Music in the Middle Ages. The development of polyphonic music, early organum to ca. 1450, with emphasis on techniques, styles, and forms. Seminar, with readings, reports, and musical illustrations. 3 s.h.

6941 Music in the Renaissance. Musical developments from ca. 1450–1600 dealing with the vocal music of this period, both sacred and secular, and the formulation of independent instrumental styles. Seminar with readings, reports, and musical illustrations. 3 s.h.

6942 Introduction to Music Bibliography. Fundamental concepts in bibliographic control with emphasis on the functional and analytic approach to bibliography. 3 s.h.

6943 Seminar in Musicology. An examination of select problems in musicology. May be repeated with permission of instructor. 3 s.h.

6944 Seminar in Symphonic Literature. An investigation of the literature written for symphony orchestra. 3 s.h.

6945 Selected Topics in Music Literature. Various topics related to the study of music literature. Specific topic is announced each time the course is offered. May be repeated with a different topic. 3 s.h.

6946 Selected Topics in Jazz History. Topical studies will develop a historical perspective of a specific period of jazz or a specific jazz artist including related cultures, events, and the development of musical style. Sample topics: early jazz, the Post-Bop Era, the music of John Coltrane. May be repeated with a different topic. 3 s.h.

Music Education

6950 Conducting Pedagogy. The study and critical analysis of methods for teaching conducting. Prereq.: One semester of applied conducting study. 2 s.h.

6970 Foundations of Music Education. An examination of basic principles and techniques of music instruction; contemporary trends viewed from historical perspectives. 3 s.h.

6972 Seminar in Music Education. Individual projects and discussion of fundamental issues in music education. Course may be repeated once with permission of instructor. 3 s.h.

6973 Research Methods and Materials in Music Education. A study of research tools and techniques and their application to problems in music education; critique of research studies. Research report required in nonthesis music education program. 3 s.h.

6975 Music and the Humanities. Designed to aid in the development of interdisciplinary courses involving music and the humanities in the secondary school. 3 s.h.

6976 Directed Study in Conducting. Study of significant works, vocal or instrumental; special problems in conducting. May be repeated for credit. 3 s.h.

6978 Contemporary Trends in Music Education. Examination and discussion of music education in contemporary society. Consideration of repertoire, methods, and teaching aids with regard to current needs and emerging trends. 3 s.h.

6979 Workshop in Music Education. For students and teachers in service. Specific topics are announced each time the workshop is offered. Grading is satisfactory or unsatisfactory (S/U). May be repeated with different topic. 1–3 s.h.

6981 Elementary School Music Practicum. Field experiences, demonstrations, and lectures to acquaint the student with the many facets of elementary music instruction. Contemporary trends and innovative programs will be examined. Students will be encouraged to introduce certain programs and approaches in their own teaching situations. Prereq.: Teaching experience or student teaching. 3 s.h.

6982 Secondary School Music Practicum. An examination of the total secondary school music program through guided field experiences, demonstrations, and lectures. The development of curriculum in general music and instrumental and vocal music will be considered in light of the student's needs and abilities. Prereq.: Teaching experience or student teaching. 3 s.h.

Music Research

6990, 6991 Thesis I and II. Individual research and writing culminating in the preparation of a master's thesis. Prereq.: Completion of 15 semester hours coursework and approval of thesis

proposal by the Dana Graduate Committee. 2+(1 or 2) s.h.

6992 Independent Projects in Music. Individual research topics in music of a library, laboratory, or fieldwork nature. Prereq.: Approval of Dana Graduate Committee. 1–4 s.h.

Music Ensemble

Graduate students may apply up to two semester hours of ensemble credit as music electives in the various degree programs, subject to approval by their faculty advisor. 0–1 s.h.

0002 Dana Chorale
0003 Dana Madrigal
0004 University Chorus
0005 Concert Band
0006 Marching Band.
0007 Symphonic Wind Ensemble
0008 Symphony Orchestra
0009 Percussion Ensemble
0010 String Ensemble
0011 Men's Chorus
0012 Opera Workshop
0013 Contemporary Music Ensemble
0014 Women's Chorus
0015 Early Music Ensemble
0016 Woodwind Ensemble
0017 Brass Ensemble
0018 Horn Ensemble
0019 Trombone Ensemble
0020 Tuba Ensemble
0021 Brass Chamber Ensemble
0022 Trumpet Ensemble
0023 Jazz Ensemble
0024 Composer's Ensemble
0026 Chamber Orchestra
0028 Chamber Winds
0029 Guitar Ensemble
0030 Jazz Combo
0035 Saxophone Quartet
0040 University Band
0041 Basketball Pep Band
0051 Piano Chamber Ensemble

Nursing

Patricia Hoyson, Chair
2044 Cushwa Hall
(330) 941-3292
plhoyson@ysu.edu

5870 School Nurse Role Development. (3 s.h.)
5871 Health Problems of School Age Children. (3 s.h.)
5872 School Nurse Practicum. (3–9 s.h.)

6900 Professional Issues in Nursing. Exploration of nursing issues including changing roles and scope of practice, discipline concerns, health care delivery, legal and ethical dilemmas, politics, and health care policy. 3 s.h.

6901 Nursing Science and Research I. Historical and present development of concepts, models, frameworks, theories, and research in nursing, along with understanding and application of the following steps of the research process: problem and hypothesis formulation and literature review. 3 s.h.

6902 Advanced Pathophysiology. Normal physiologic functions and pathologic mechanisms are examined to prepare nurses for advanced practice roles. 3 s.h.

6903 Advanced Pharmacology. Application of pharmacological concepts in clinical settings with examination of major categories of pharmacological agents. Prereq: NURS 6902. 3 s.h.

6904 Advanced Health Assessment. Development of advanced clinical knowledge and skills in assessment of clients and interactions with their environments. Emphasis is on research from nursing, biological, behavioral, and social sciences. Prereq.: NURS 6901, 6902, and 6903. 3 s.h.

6905 Advanced Health Assessment Practicum. Application of advanced nursing knowledge and skills from NURS 6904, focusing on the assessment of clients and interactions with their environments. Prereq.: NURS 6901, 6902, and 6903. Concurrent: NURS 6904. 4–5 s.h.

6906 Advanced Statistics. Advanced inferential and multivariate statistical techniques used in nursing and other health professions, with emphasis on SPSS/PC computer analysis for interpretation of nursing and health data. Prereq.: An undergraduate statistics course or equivalent. 2 s.h.

6907 Health Assessment of School Children. Development of advanced clinical knowledge and skills in assessment of school children. Emphasis on research from nursing, biological, behavioral, and social sciences. Prereq.: NURS 6901, 6902, and 6903, or enrollment in school nurse licensure program. 3 s.h.

6908 Health Assessment of School Children Practicum. Application of advanced nursing knowledge and skills from NURS 6907, focusing on assessment of children in school settings. Concurrent: NURS 6907. 2 s.h.

6910. Professional Aspects of Nurse Anesthesia. Ethics, legal aspects, and professional issues associated with a career in nurse anesthesia. Includes a history of anesthesia and the role of certified registered nurse anesthetists (CRNA). Prereq.: Acceptance into nurse anesthesia option. 3 s.h.

6911 Pharmacology I for Nurse Anesthetists. Basic principles of pharmacology including drug effectiveness, mechanism of action, and drug interactions. Emphasis on pharmacological action of drugs on specific organ systems and use in treatment of disease conditions. Prereq.: Acceptance into nurse anesthesia option. 3 s.h.

6912 Pharmacology II for Nurse Anesthetists. Comprehensive study of drugs and adjunctive agents used in anesthesia practice. Includes a review of inhalation and intravenous anesthetics, local anesthetics, neuromuscular blocking agents, and adjunctive drugs. Prereq.: NURS 6911. 3 s.h.

6913 Medical Chemistry and Physics for Nurse Anesthetists. Application of organic chemistry, biochemistry, and medical physics in the practice of anesthesia. Prereq.: Acceptance into nurse anesthesia option. 3 s.h.

6914 Human Anatomy, Physiology, and Pathophysiology I for Nurse Anesthetists. Study of the structure and function of the human body. Prereq.: Acceptance into nurse anesthesia option. 3 s.h.

6916 Anesthesia Principles I. Introduction to anesthesia practice and techniques, including preoperative assessments, anesthesia drugs, care plan development and implementation, and safety issues. Prereq.: Acceptance into nurse anesthesia option. 2 s.h.

7000 Chronic Illness Care. Advanced nursing management of chronic health care needs of clients and interactions with their environments. Prereq.: NURS 6904 and 6905. 3 s.h.

7001 Chronic Illness Care Practicum. Application of knowledge and skills from NURS 7000, focusing on advanced nursing management of the health care needs of clients and interactions with their environments. Concurrent: NURS 7000. Prereq.: NURS 6904 and 6905. 4–5 s.h.

7002 Nursing Science and Research II. Continuation of NURS 6901, focusing on design, instrumentation, data collection methods, data analysis and data interpretation. Prereq.: NURS 6901 and 6906. 2 s.h.

7003 Role Development. The examination of concepts, theories, and research related to advanced practice role development, teaching, learning, technology, evaluation strategies, leadership, program development, marketing skills, and health care delivery in community settings. Prereq.: NURS 7000, 7001 and 7002. 3 s.h.

7004 Role Practicum. Application of concepts, theories, and research from NURS 7003 in a variety of nursing education, health care, and community settings. Prereq.: NURS 7002 and 7003. 4–5 s.h.

7005 Research Practicum. Synthesis of learned concepts and theories in the form of an individual scholarly project, and dissemination of findings under the direction of a graduate faculty member. Prereq.: Completion of all coursework and approval of the M.S.N. faculty committee. 2 s.h.

7006 Special Topics in Nursing. Special interest nursing topics selected by the faculty which reflect current trends and issues in nursing practice. May be repeated as desired. 1–5 s.h.

7008 Schools and Health. Population focus survey of children's health issues and K-12 schools using CDC Coordinated School Health Program model as an organizing framework. Topics include school health policy, relationship of health and academic outcomes, and Youth Risk Behavioral Surveillance (YRBSS). Current research infused into the course. 3 s.h.

7010 Human Anatomy, Physiology, and Pathophysiology II for Nurse Anesthetists. NURS 6914 Continuation of Anatomy, Physiology, and Pathophysiology I with further emphasis on cardiovascular, respiratory, renal, hepatic, and endocrine systems. Prereq.: NURS 6914. 3 s.h.

7011 Anesthesia Principles II. Examines specific anesthetic techniques used in a variety of surgical procedures. Prereq.: NURS 6916. 6 s.h.

7012 Anesthesia Principles III. Administration of anesthesia for high-risk patients. Prereq.: NURS 7011. 8 s.h.

7014 Health Management in Schools. Advanced nursing management of health care needs of children in schools, pre-K through high school. Prereq.: NURS 6907 or enrollment in school nurse licensure program. 3 s.h.

7015 Health Management in Schools Practicum. Application of knowledge and skills from NURS 7014, focusing on advanced nursing management of health care needs of children in schools, pre-K through high school. Prereq.: NURS 6907. To be taken concurrently with NURS 7014. 2 s.h.

7016 School Nurse Role. Examination of concepts, theories, and research related to advanced practice role development, teaching, learning, technology, evaluation strategies, leadership, marketing skills, and health care delivery in school settings. Prereq.: NURS 7014, 7015 or enrollment in the school nurse licensure program. 3 s.h.

7017 School Nurse Role Practicum. Application of concepts, theories, and research from NURS 7016 in pre-K and K-12 school settings to be taken concurrently with NURS 7016. Prereq.: NURS 7014, 7015 or enrollment in school nurse licensure program. 1–5 s.h.

Philosophy and Religious Studies

Bruce Waller, Chair
401 DeBartolo Hall
(330) 941-3448
bnwaller@ysu.edu

Philosophy

6900 Ethics in Medicine and the Health Care Professions. Examines issues raised by the institutional structure of medicine and the health care system; major emphasis is given to the diverse roles played by health care professionals and the practical and ethical conflicts that they produce. 4 s.h.

6901 Bioethics and Public Policy. Emphasizes the larger policy issues that impact bioethics; examines their constitutional, social, and moral aspects and their impact on patients, health care providers, and the institutional structure of health care. 4 s.h.

Physical Therapy

Nancy Landgraff, Chair
B086 Cushwa Hall
(330) 941-2703
nlandgraff@ysu.edu

5800 Pathology. (4 s.h.)

8901 Clinical Decision Making I. Decision-making process for clinical management of uncomplicated cases in practice patterns. Emphasis on posture and movement assessment, safety, body mechanics, and monitoring physiological status. Prereq.: Admission to D.P.T. program. 6 s.h.

8902 Functional Anatomy. Study of kinetics, kinematic variables, and mechanical properties of tissue; motion analysis: posture, gait and functional activities; environmental contexts and constraints, and life span applications. Prereq.: Admission to D.P.T. program. 3 s.h.

8903 Language, Culture, and Health. Examination of cultural theory, language, and application to clinical interactions. Cultural assumptions and patterns of health-related activity related to disability, socioeconomic status, age, gender, ethnicity/race, sexual orientation, and religion. Prereq.: Admission to D.P.T. program. 2 s.h.

8904 Clinical Education I. Initial clinical experience in evaluating and treating basic cases of illness/injury prevention, posture and movement dysfunction, and interprofessional practice. Six weeks of full-time experience. Grading is S/U. Prereq.: Admission to D.P.T. program. 4 s.h.

8905 Clinical Decision Making II. Decision making process for clinical management of both routine and less common cases in practice patterns. Emphasis on outcomes research, personnel supervision, individualized and culturally-sensitive intervention, and program design. Prereq.: Admission to D.P.T. program. 6 s.h.

8906 Critical Inquiry I. Introduction to physical therapy literature and resources for physical therapy related scholarly activity. Review of qualitative and quantitative methods, measurement issues, and outcomes research. Understand the basic components of ethical, critical inquiry in order to become informed consumers of professional literature. Prereq.: Admission to D.P.T. program. 1 s.h.

8907 Special Topics: Pediatrics. Theories of human growth and development and application to typical and atypical motor development and illnesses or injuries of children. Clinical management of cases across the practice patterns with emphasis on family/caregiver participation, team approach, and setting-specific expectations. Prereq.: Admission to D.P.T. program. 3 s.h.

8908 Legal and Ethical Issues in Physical Therapy. Foundation knowledge and skills necessary for legal and ethical practice of physical therapy. Emphasis on legal principles and concepts; contract, business, and educational law; ethical theory and ethical decision-making approaches; and professional code of ethics. Prereq.: Admission to the D.P.T. program. 2 s.h.

8909 Clinical Decision Making III. Evaluation of decision-making process for clinical management of complex and complicated cases. Emphasis on reimbursement, professional development, interprofessional activities, and program evaluation. Prereq.: Admission to D.P.T. program. 6 s.h.

8910 Critical Inquiry II. Analysis of literature based on historical and state-of-the-art theories and methods. Evaluation of research on selected physical therapy topics. Emphasis on case report methods of critical inquiry. Introduction to funding, IRB process, collaborative endeavors, and proposal writing. Prereq.: Admission to D.P.T. program. 2 s.h.

8911 Special Topics: Geriatrics. Theories of life span development and human aging with application to systems development and dysfunction. Emphasis on prevention, well elderly, and illnesses/injuries common to the elderly. Clinical management of cases, considering functional goals; cognition; pharmacology; and reimbursement issues. Prereq.: Admission to D.P.T. program. 2 s.h.

8913 Management and Leadership in Physical Therapy. Theories of resource planning, management strategies for utilizing resources (human, information, fiscal, and space/equipment) for health care delivery, and clinical management issues in various physical therapy settings. Prereq.: Admission to D.P.T. program. 2 s.h.

8914 Clinical Education II. Second clinical experience in evaluating and treating a diverse caseload of illness/injury prevention, posture and movement dysfunction, and specialty practice. Includes supervision of support personnel, interprofessional evaluation and treatment, and administrative tasks. Six week full-time experience. Grading is S/U. Prereq.: Admission to the D.P.T. program. 4 s.h.

8915 Clinical Decision Making IV. Topics that integrate practice patterns (musculoskeletal, neuromuscular, cardiopulmonary, and integumentary) such as multiple trauma, burns, amputations, and critical care. Also includes complex cases, within routine diagnoses, due to severity, chronicity, or comorbidity. Emphasis on outcome studies. Prereq.: Admission to D.P.T. program. 6 s.h.

8916 Critical Inquiry III. Peer review of formally-presented case reports. Design of a clinically-related project based on the findings of the case report. Emphasis will be given to formal research proposals, clinical applications, and resources for project implementation. Prereq.: Admission to

D.P.T. program. 2 s.h.

8918 Professional Issues. Discussion of professional topics related to entry-level practice, such as leadership, interagency and interprofessional collaboration, future trends and technologies, and opportunities for professional growth. Prereq.: Admission to D.P.T. program. 2 s.h.

8919 Clinical Education III. Continuation of clinical experience in evaluating and treating a diverse caseload of illness/injury prevention, posture and movement dysfunction, and specialty practice. Includes supervision of personnel, interprofessional practice, administrative tasks, and effective time management. Five-week, full-time experience. Grading is S/U. Prereq.: Admission to D.P.T. program. 4 s.h.

8920 Clinical Education IV. Final clinical experience in evaluating and treating a diverse caseload of illness/injury prevention, posture and movement dysfunction, and specialty practice. Collaborative client-oriented practice, professional conduct, and professional development. Fifteen weeks of full-time experience. Grading is S/U. Prereq.: Admission to D.P.T. program. 12 s.h.

8921 Independent Study. Individual study and projects under faculty supervision. Prereq.: Admission to D.P.T. program, and permission of instructor and department chair. May be repeated for a total of six semester hours. 1–6 s.h.

8922 Research. Research under the supervision of a graduate faculty member. Prereq.: Admission to D.P.T. program, and permission of instructor and department chair. May be repeated for a total of six semester hours. 1–6 s.h.

8923 Community Applications. Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management. Prereq.: Admission to the D.P.T. Program. 3 s.h.

8924 Histology. The study of the histological basis of human tissue. Emphasis on the relationship between microscopic structure of tissue types and organ function. Prereq.: Admission to D.P.T. program. 1 s.h.

8925 Applied Neuroscience for Physical Therapists. Introduction to the anatomy and physiology of the human central and peripheral nervous systems. Interaction and relationships between the various structures are described in order to understand movement, sensation and higher cortical functions. Structure is related to function through clinical case examples with an emphasis on the importance for physical therapy assessment and intervention. Prereq: Admission to D.P.T. program. 4 s.h.

8926 Imaging and Lifespan Pathology for PT. Imaging principles, methods and findings to illustrate the relationship to treatment options and plans of care. Case-based examples illustrate the implications for physical therapy practice and referral. Common pathology highly relevant to physical therapy throughout the lifespan are discussed. Introduction to common scenarios for differential diagnosis. Prereq.: Admission to D.P.T. program. 2 s.h.

8927 Critical Inquiry I: Planning. Development of research design for case reports and research proposals. Evidence-based emphasis on literature review, definition of research questions, and critical analysis of the research question and selected methodological elements. Introduction to internal and external funding sources. Prereq.: Admission to D.P.T. program. 2 s.h.

8928 Healthcare Delivery. Global study of the delivery of healthcare in a broad-spectrum view.

Emphasis is on the societal, economic, legal/ethical and cultural factors that influence healthcare. Multidisciplinary aspects are considered. Prereq.: Admission to D.P.T. program. 1 s.h.

8929 Clinical Decision Making III: Advanced Cases. In-depth analysis of patient/client cases which includes pharmacology influences and diversity aspects. Differential diagnosis skills will be further developed in respect to each case. Evidence-based practice will be emphasized. Prereq.: Admission to D.P.T. program. 3 s.h.

8930 Clinical Decision Making IV: Advanced Cases. In-depth analysis of patient/client cases which includes pharmacology influences and diversity aspects. Differential diagnosis skills will be further developed in respect to each case. Evidence-based practice will be emphasized. Prereq.: Admission to D.P.T. program. 2 s.h.

8931 PT Specialty Applications. Specialty focused course with faculty and clinical experts integrating didactic and client experiences. Students choose area of specialty. Prereq.: Admission to D.P.T. program. 4 s.h.

8932 Pharmacology for PTs. The study of pharmacologic principles, classifications and common pharmaceutical agents. Prereq.: Admission to D.P.T. program. 1 s.h.

8938 Special Topics in Physical Therapy. Special interest physical therapy topics selected by the faculty which reflect current trends and issues in physical therapy practice. May be repeated as desired. Prereq: Admission to the D.P.T. program. 1 – 5 s.h.

Physics and Astronomy

Warren Young, Interim Chair, 2008-2009
1024 Ward Beecher Hall
(330) 941-7113
wyoung@ysu.edu

W. Gregg Sturrus, Chair
2014 Ward Beecher Hall
(330) 941-3615
wsturrus@cc.ysu.edu

Physics

5810 Quantum Mechanics I. (3 s.h.)
5811 Quantum Mechanics II. (3 s.h.)
5823 Laser Physics and Photonics. (3 s.h.)
5826 Nuclear Physics and Nuclear Physics Laboratory. (3 s.h.)
5830 Condensed Matter Physics. (3 s.h.)
5835 Spectroscopy. (3 s.h.)
5835L Spectroscopy Laboratory. (1 s.h.)
5850 Special Topics in Physics. (2–6 s.h.)
5890 Physics and Astronomy for Educators. (3 s.h.)

6900 Physics Education Workshop. Intensive study of selected topics of current interest in physics education. May be repeated. Grading is S/U. 1–3 s.h.

Political Science

Paul Sracic, Chair
444B DeBartolo Hall
(330) 941-1672
pasracic@ysu.edu

5800 Select Problems: American Government. (2–4 s.h.)
5830 Public Human Resource Management. (4 s.h.)
5860 Select Problems: International Relations. (2–4 s.h.)
5865 Global Environmental Policy and Law. (3 s.h.)
5880 Select Problems: Political Thought. (2–4 s.h.)

6905 Public Administration and the Political Process. Political factors which condition the structure and function of public agencies, including the public interest, agency constituencies, and political influence. Prereq.: Admission to YSU/CSU M.P.A. program. 4 s.h.

6963 Budgetary Policy. Covers the importance of budgeting and finance to public policy makers and public administrators: Sources of city and state finance information; examination of the revenue, expenditure, and debt structure of American cities. Also includes examination of budgetary processes, formats, and accounting systems. Prereq.: Admission to YSU/CSU M.P.A. program. 4 s.h.

Psychology

Vernon Haynes, Chair
319 DeBartolo Hall
(330) 941-3401
vfhaynes@ysu.edu

5807 Introduction to Counseling. (3 s.h.)

6903 Psychology of Learning and Education. Examination of the teaching and learning process and its implications for use in education. 3 s.h.

6905 Human Growth and Development. A life-span perspective to theoretical and empirical issues of development from conception to death. 3 s.h.

6906 Advanced Child Development. Expanded aspects of child and adolescent psychology. 3 s.h.

6907 Psychology of Adjustment. Basic problems dealing with mental health, individual differences, motivation, and minor deviant behavior. 2 s.h.

6930 Child and Adolescent Health Psychology. Comprehensive theoretical and empirical coverage of topics in pediatric and health psychology. Prereq.: PSYC 6905. 3 s.h.

6936 Cognitive and Social Development. This course will survey major theories and empirical findings of cognitive development and the development of interpersonal relations across childhood. Prereq.: PSYC 6905. 2 s.h.

6940 Personality Theory. The study of major personality theories and their implications for psychotherapy and mental health work. Prereq.: PSYC 3740 Psychological Measurement. 2 s.h.

6955 Psychopathology. The study of abnormal behavior with an emphasis placed on psychopathological conditions. Prereq.: PSYC 6940. 2 s.h.

6960 Fundamentals of Applied Behavior Analysis. An introduction to the scientific and theoretical foundation of applied behavior analysis including definitions and characteristics, principles and concepts, and behavior change procedures. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of instructor. 3 s.h.

6961 Foundations of Experimental Analysis of Behavior. An examination of the roles that consequences, and their scheduling, play in the acquisition, maintenance, and structure of behavior, mechanisms and theories about mechanisms by which consequences select and shape behavior, and issues surrounding methods, measurement, and quantification. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6962 Behavior Theory and Philosophy. The course is designed to help students understand the philosophical and theoretical underpinnings of behavior analysis and to become familiar with some of the controversial issues surrounding the field from both modern and historical perspectives. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6963 Behavioral Interventions and Ethical Considerations. Introduction to the practice and application of empirically derived behavioral interventions, antecedent manipulations, extinction, differential reinforcement procedures, and punishment procedures for behavior maintained by social positive reinforcement, negative reinforcement, and automatic reinforcement. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6964 Observational Methods & Functional Assessment. This course provides intensive instruction in functional assessment procedures and direct observation methods to be used by the applied behavior analyst in service delivery in community, mental health and education settings. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6965 Behavioral Systems Analysis. The application of basic principles of behavior in business and industry settings. Students are expected to master fundamental principles of behavior analysis and apply those principles to a variety of performance problems in business and industry. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6966 Research Methods in Applied Behavior Analysis. This course covers direct measurement, graphing data, visual inference, single-subject research methodology, program monitoring and evaluation, and ethical issues in applied behavior analytic research. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3. s.h.

6968 Practicum I. The first-year practicum will give students experience doing functional analyses and behavior assessments with a specific client population. Possible settings include industry, senior-care, prisons, and rehabilitation centers. This course will follow the experience guidelines of the Behavior Analysis Certification Board (www. BACB.com), which requires 1,000 total hours of practicum experience. Students will work 20 hours per week at their practicum site (BACB requirement for Practicum). Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6969 Practicum II. The second-year practicum will give students experience designing and implementing behavior analytic interventions with a specific client population. This population will be different than that encountered in Practicum I. Possbile settings include industry, senior care, prisons, and rehabilitation centers. This course will follow the experience guidelines of the Behavior Analysis Certification Board (www. BACB.com), which requires 1,000 total hours of practicum experience. Students will work 20 hours per week at their practicum site (BACB requirement for Practicum). Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 s.h.

6981 Seminar in Special Education. See SPED 6981. 1–2 s.h.

6990 Seminar in Psychology. Study of topics in psychology. To be announced by topic. Repeatable to six semester hours with change in topic. Prereq.: Permission of instructor. 1–3 s.h.

7000 Psychopharmacology. An introduction to the basic principles of pharmacology; a review of the structures and mechanisms of the central nervous system, with emphasis on neurotransmission; and a survey of the drugs that especially affect the central nervous system, including possible mechanisms of action. 2 s.h.

7010 Counseling Internship. See COUN 7010. 1–10 s.h.

7060 Thesis. Design, proposal, completion, and reporting of scholarly research deemed acceptable by the BATC (Behavior Analysis Training Committee). A student may register for 6 s.h. in one semester or for 3 s.h. in each of two semesters.. Prereq.: Admission to the M.S. in Applied Behavior Analysis program or permission of the instructor. 3 - 6 s.h.

Public Health

Nancy Mosca, YSU Program Coordinator
3062 Cushwa Hall
(330) 941-1793
nwmosca@ysu.edu

Amy Lee, CEOMPH Program Director
Division of Community Health Sciences
NEOUCOM
(330) 747-2247, ext. 6179 or (330) 325-6179
afl@neoucom.edu

6901 Public Health Concepts. Organizational structure, history, law, ethics, essential services, global problems, and future of public health. Prereq.: Graduate standing, permission of course director required for non-M.P.H. students. 3 s.h.

6902 Social and Behavioral Sciences in Public Health. Theories of health education and promotion; intervention (communication, collaboration, and strategies): sociocultural, diversity, and regional issues as pertains to public health. Prereq.: Graduate standing, permission of course director required for non-M.P.H. students. 3 s.h.

6903 Epidemiology in Public Health. Epidemiological methods, including study design, legal/ethical aspects, and Epi Info, applications of methods including screening, disease surveillance, outbreak investigation, and community needs assessment. Student presentations to focus on special topics such as infectious diseases, chronic conditions, etc. Prereq.: Graduate standing,

permission of course director required for non-M.P.H. students. 3 s.h.

6904 Biostatistics in Public Health. Principles of biostatistics in the context of multiple public health applications, Epi Info, SAS, and JMP statistical packages to be used. Prereq.: Graduate standing, permission of course director required for non-M.P.H. students. 3 s.h.

6905 Health Services Administration in Public Health. Management principles, including personnel administration, budgeting, financing, and continuous quality improvement as pertains to public health. Planning and evaluation principles, grant writing, public health economics, public health policy, and data sources. Prereq.: Graduate standing, permission of course director required for non-M.P.H. students. 3 s.h.

6906 Environmental Health Sciences in Public Health. Air quality, water quality, food hygiene, sanitation, solid waste management, hazardous materials management, vector-borne disease, other special topics, occupational health, legal issues, environmental hazard identification and response. Prereq.: Graduate standing, permission of course director required for non-M.P.H. students. 3 s.h.

6907 Grant Writing in Public Health Practice. Methods and techniques for writing and managing grant proposals to support public health programs. Prereq.: Permission of instructor required for non-M.P.H. students. 3 s.h.

6908 Public Health Practice and Issues. In an organizational setting, the following topics will be explored: informatics and communication, diversity and cultural proficiency, ethics, and biology. These topics are emerging public health issues, which will be applied in a practice setting. Prereq.: Graduate standing and MPH 6901, 6902, 6903, and 6904. 3 s.h.

6994 Individual Investigation in Public Health. Intensive research or readings on selected topic or problem to be selected in consultation with M.P.H. graduate faculty. Prereq.: MPH 6901 and 6904. 1–3 s.h.

6995 Special Topics. Specialized sections selected by faculty will focus on specific topics of current interest to public health practice. May be repeated with different topics up to 15 semester hours. Prereq.: Graduate standing, permission of program director required for non-M.P.H. students. 1–5 s.h.

6996 M.P.H. Practicum. Student is teamed with a faculty advisor and community preceptor(s) to work on a meaningful public health issue. For students who desire additional field experience. Prereq.: Graduate standing, permission of program director required for non-M.P.H. students. 3 s.h.

6997 M.P.H. Capstone Project. A faculty advisor and community preceptor(s) are teamed with each student who will develop a paper (i.e., grant, study, proposal) on a meaningful public health issue learned from the core M.P.H. courses. Prereq.: Graduate standing; MPH 6901, 6902, 6903, 6904, 6905, and 6906. 3–6 s.h.

Social Work

Michael Murphy, Chair
3034 Cushwa Hall
(330) 941-3774
mjmurphy.01@ysu.edu

5820 Social Policy. (3 s.h.).
5822 Social Work Methods III. (3 s.h.)
5823 Cultural Diversity in Practice. (3 s.h.)

6900 Human Behavior and the Social Environment I. An overview of normal individual development throughout the life span. Developmental stages, tasks, and circumstances as well as diversity in individual development will be examined. The influence of biological, psychological, and social systems on individual development throughout the life span constitutes the organizing theme for the course. 3 s.h.

6901 Oppression and Cultural Competence. Examination of the history, demographic trends, and cultures of diverse groups who have been disenfranchised based on differences that include race, gender, age, socioeconomic class, sexual orientation, religion, and ability. Emphasis will be placed on understanding the experience of oppression among diverse groups and the implications for social work practice. 3 s.h.

6902. Social Welfare Policy and Program Analysis. An historical perspective on the development of social problems as well as a critical analysis of social welfare institutions, programs, policy efforts, and services. Attention is given to the consequences of social and economic injustice and the effects that policy initiatives have upon vulnerable populations. 3 s.h.

6903 Social Work Foundation Practice I. A foundation methods course based on an advanced generalist social work practice perspective. This course demonstrates application of the problem-solving process or the planned change process in the context of the strengths perspective. Attention will be placed on planning interventions with diverse individuals, families, and small groups. 3 s.h.

6904 Field Education I. Professionally supervised practice in approved community agencies. Focus will be on increasing the student's analytic skills and repertoire of intervention modalities. The course is based on foundation coursework that emphasizes advanced generalist practice while promoting a strengths-based approach. Concurrent: SCWK 6903. 3 s.h.

6905 Human Behavior and the Social Environment II. An overview of theories and knowledge of the behavior of groups, organizations, and communities as well as the impact of these systems on individual behavior. Special emphasis is given to understanding the influence of mesosystems and macrosystems on social service organizations. Empowerment-based policies are explored. Prereq.: SCWK 6900. 3 s.h.

6906 Business Skills for Social Workers. Overview of the principles, concepts, and terminology related to social work business practice. Topics include time management, financially responsible practice, managed care issues, organizational efficiency and effectiveness, outcome measurements, performance evaluation, marketing for nonprofit organizations, community building and collaborative efforts. State-of-the-art technology will be reviewed. Prereq.: SCWK 6900. 3 s.h.

6907 Social Work Foundation Practice II. A foundation methods course based on an advanced generalist social work practice perspective. This course demonstrates application of the problem-solving process or planned change process in the context of the strengths perspective. Attention will be placed on planning interventions with diverse organizations and communities. Prereq.: SCWK 6903. 3 s.h.

6908 Research. A review of the scientific method, quantitative and qualitative research strategies, and related concepts. Principles of conceptualization, research design, sampling, instrumentation,

descriptive and inferential data analysis, scientific report writing, and the significance of research for social work practice will be emphasized. Attention will be placed on developing strengths-based performance indicators. Prereq.: SCWK 6900. 3 s.h.

6909 Field Education II. Professionally supervised practice in approved community agencies. Focus will be on increasing both the student's analytic skills and repertoire of intervention modalities. The course is based on foundation coursework that emphasizes advanced generalist practice while promoting a strengths-based approach. Concurrent: SCWK 6907. 3 s.h.

7000 Advanced Direct Practice I. An advanced course that emphasizes social work values, ethical dilemmas/implications, and the development of practice methods that integrate a strengths-based empowerment approach with individuals, families, and groups. Prereq.: SCWK 6907. 3 s.h.

7002 Adversities and Resiliencies. The development of adversities experienced by individuals from conception through adulthood. The course employs a multisystems ecological perspective in discussing risk conditions, stressful life events, and the interplay of risk and protective factors that appear to be common to many childhood disorders and problems. Prereq.: SCWK 6901. 3 s.h.

7003 Theory and Practice of Supervision. A review of the education, administration, and support aspects of supervision, as well as individual, group, and peer group modalities. Emphasis will be placed on supervisory issues as they relate to diversity, strengths-based assessment, and the development of multicultural competence. Prereq.: SCWK 6905. 3 s.h.

7004 Practice Evaluation. Explores advanced techniques for evaluating systems of all sizes. Methods and strategies for conducting program evaluation and single system research will be emphasized. Special emphasis will be placed on developing strengths-based performance indicators. Prereq.: SCWK 6908. 3 s.h.

7006 Social Work in Aging. This course examines social work with the elderly through critical analysis of policy, specific human behavior content, and research. Students will critique practice interventions, program design, and service strategies specific to social work practice in settings for the aged. 3 s.h.

7007 Social Work in Child and Family Settings. This course examines social work in child and family settings through critical analysis of policy, specific human behavior content, and research. Students will critique practice interventions, program design, and service strategies specific to social work practice in child and family settings. 3 s.h.

7008 Social Work in Mental Health Settings. This course examines social work in mental health settings through critical analysis of policy, specific human behavior content, and research. Students will critique practice interventions, program design, and service strategies specific to social work practice in mental health settings. 3 s.h.

7009 Field Education III. Advanced field education placement. Students participate in planned experiences that integrate theoretical knowledge, social work practice skills, and social work ethics and values in direct or macro practice settings. Theoretical frameworks address micro and macro concerns respectively by emphasizing empowerment, individual strengths, solution focused practice, community building, collaboration, and organizational structures. Concurrent: SCWK 7000. 3 s.h.

7010 Advanced Direct Practice II. A continuation of SCWK 7000 Advanced Direct Practice

I. In addition to developing practice methods that integrate a strengths-based empowerment approach with individuals, this course incorporates theoretical frameworks and constructs from empowerment theory, the ecological perspective, solution-focused practice, the feminist perspective, person-centered practice, and other relevant, brief practice approaches. Prereq.: SCWK 7000. 3 s.h.

7012 Field Education IV. Advanced field education placement. Students participate in planned experiences that integrate theoretical knowledge, social work practice skills, and social work ethics and values in direct or macro practice settings. Theoretical frameworks address micro and macro concerns respectively by emphasizing empowerment, individual strengths, solution-focused practice, community building, collaboration and organizational structures. Concurrent: SCWK 7010. 3 s.h.

7013 Capstone. This course provides opportunities for students to synthesize and integrate previous coursework from their social work education. Theoretical and experiential assignments are utilized to assist students with increased self-awareness and to prepare them for the transition from college to advanced professional social work practice that emphasizes the strengths-based approach. Concurrent: SCWK 7012. 3 s.h.

7014 Selected Topics in Social Work. Advanced seminar on selected topics in social work theory, methods, and research. May be repeated with different topics. 3 s.h.

Sociology and Anthropology

Qi Jiang, Chair
420 DeBartolo Hall
(330) 941-3441
qjjiang@ysu.edu

Sociology

6900 Special Sociological Problems. 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. 3 s.h.

6905 Social Gerontology. Integration and application of gerontological theories; major conceptual issues regarding life span development; and contemporary gerontological concepts and research. 3 s.h.

Anthropology

6910 Special Anthropological Problems. 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. 3 s.h.

Teacher Education

Dora L. Bailey, Chair
2406 Beeghly Hall
(330) 941-3251
dlbailey@ysu.edu

Early Childhood Education

6910 (ECE) Curriculum, Theories, and Methods in Early Childhood Education, Pre-K–Grade 3. Investigation of curriculum, theories, and assessment and how they relate to children's learning. Attention given to the role of parents as teachers. 3 s.h.

6911 (ECE) Early Childhood Pedagogy in Math and Science. 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. 4 s.h.

6920 (ECE) Current Social Issues in Early Childhood Education. Analysis of contemporary issues, trends, and current educational policies that impact classroom practices. Includes service-learning component. Prereq.: ECE 6910. 3 s.h.

6921 (ECE) Action Research in Early Childhood Education, Pre-K-Grade 3. 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. 3 s.h.

Early/Middle Childhood Education

5816 (EMCE) Diagnosis and Remediation of Elementary School Mathematics. (2 s.h.)
5888 (EMCE) Topical Seminar. (1–3 s.h.)

5900 (EMCE)Early/Middle Childhood Education Workshop. 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. 4 s.h.

5901 (EMCE) Early/Middle Childhood Education Workshop. 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. 1–4 s.h.

5902 (EMCE) Early/Middle Childhood Education Workshop. 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. 1–4 s.h.

5903 (EMCE) Early/Middle Childhood Education Workshop. 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. 1–4 s.h.

6918 (EMCE) Elementary School Mathematics Programs. 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. 3 s.h.

6919 (EMCE) Social Studies Programs in the Elementary School. 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. 3 s.h.

6920 (EMCE) Elementary School Science Programs. 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. 3 s.h.

6921 (EMCE) Issues, Problems, Developments, and Curriculum in Elementary Education. A study of recent trends in elementary school organization and instruction (nongraded 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. 3 s.h.

7042 (EMCE) Professional Development for Classroom Teacher Educators. 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 with SPED 7042 and SED 7042. 2 s.h.

Middle Childhood Education

6938 (TEMC) Early Adolescent Characteristics and Educational Program Needs. 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. 3 s.h.

6939 (TEMC) Organizational Components of Middle Level Schools. 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. 3 s.h.

6940 (TEMC) Inquiry into Current Issues in Middle-Level Education. 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. Prereq.: TEMC 6938 and TEMC 6939. May be repeated. 1–3 s.h.

6941 (TEMC) Pedagogy Appropriate for Early Adolescent Learners. 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. 3 s.h.

6942 (TEMC) Action Research: Pedagogy Appropriate for Early Adolescent Learners. 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. 3 s.h.

6943 (TEMC) Field Experience: Service Learning and School-Community Collaboration. 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. 3 s.h.

6950 (TEMC) Pedagogical Content Knowledge in Mathematics for Middle School Teachers I. 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. 3 s.h.

6951 (TEMC) Pedagogical Content Knowledge in Mathematics for Middle School Teachers II. 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. 3 s.h.

6952 (TEMC) Science for Middle School Teachers I. 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. 3 s.h.

6953 (TEMC) Science for Middle School Teachers II. 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. 3 s.h.

6954 (TEMC) Middle School: Theory, Research, and Practices. 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. 3 s.h.

6955 (TEMC) Field Experience: Middle Years School/Community Collaboration. 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. 3 s.h.

Literacy

6917 (TERG) Literacy, Reading, and Language Arts Programs. A critical appraisal of literacy, reading, and language arts programs in schools and an analysis of contemporary methodological issues. 3 s.h.

6922 (TERG) Organizing and Managing Diverse Literacy Environments. 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. 3 s.h.

6923 (TERG) Literacy and Phonics Instruction: Early Years. 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. 3 s.h.

6924 (TERG) Reading and Language Learning in the Middle and Adolescent Years. Investigation of research-based philosophies, principles, and best practices for learning to read and perform the language arts as well as to use reading and the language arts as tools in learning and communication during ages 10 through 22. 3 s.h.

6926 (TERG) Reading and Language Arts Assessment I. 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. 3 s.h.

6927 (TERG) Practicum: Coaching for Effective Literacy Instruction. 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. 3 s.h.

6928 (TERG) Practicum: Case Study in Reading and Language Arts. 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. 3 s.h.

6929 (TERG) The Reading and Language Arts Professional. 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. 3 s.h.

6970 (TERG) Special Topics: Literacy. Topics will focus on specific topics of current interest to literacy specialists. Courses offered on-line by a consortium of universities. Graduate standing

with permission from the Institutional Program Coordinator. Enrollment open only to students completing the requirements for the Ohio Literacy Specialist Endorsement program. May be repeated for a maximum of 10 s.h. 2-4 s.h.

6971 (TERG) Literacy Seminar. Supervised internship in a preschool, early childhood, middle childhood, or adolescent/young adult educational setting. Experiences focus on site-based literacy coaching and professional development expectations that are outlined in the standards for Ohio's Literacy Specialist Endorsement. Graduate standing with permission from the Institutional Program Coordinator. Enrollment open only to students completing the requirements for the Literacy Specialist Endorsement program. Grading is S/U. 0-8 s.h.

Adolescent/Young Adult

5991, 5992, 5993 (SED) Seminar in Secondary Education. Various topics of current interest in the secondary education area as selected by the staff. Grading is S/U. Prereq.: Admission to School of Graduate Studies and Research. 1–5 s.h.

6922 See TCED 6922.

6931 (SED) The Secondary School Curriculum. 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. 3 s.h.

6934 See TCED 6934.

6936 See TCED 6936.

6946 See TCED 6946.

6951 See TCED 6951.

6958 (SED) Instructional Supervision for Nonschool Personnel. 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. 3 s.h.

6959 See TCED 6959.

6960C (SED) Special Methods: Science. 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. 3 s.h.

6960E (SED) Special Methods: English. Exploring and demonstrating reflective teaching methods for adolescent learning of English: planning instruction, execution of teaching/learning activities, authentic assessment, interpreting academic standards, writing instructional objectives reports, portfolios, teaching files, classroom management for effective teaching. Study of sucesses in teaching English. 3 s.h.

6960M (SED) Special Methods: Mathematics. 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. 3 s.h.

6960S (SED) Special Methods: Social Studies. 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. 3 s.h.

6965 (SED) Supervised Student Teaching: High School. 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. 5 s.h.

6965A (SED) Student Teaching Seminar: High School. Seminar topics are based on pedagogy, knowledge, and application of professional practice and standards, critical theory, and knowledge of the adolescent and young adult learner. Completion of the Teacher Work Sample is required. Grading is S/U. SED 6965A is taken concurrently with Supervised Student Teaching: High School, SED 6965. 1 s.h.

6990 (SED) Independent Study. Individual investigation of advanced topics under guidance of selected staff. Prereq.: FOUN 6904. 1–4 s.h.

6999 (SED)Thesis. Prereq.: Approval of department graduate faculty and chair. 2–6 s.h.

7020 (SED) Field Experience in Supervision. A field experience in supervisory practices. Admission by permission of chair of secondary education. Prereq.: FOUN 6904, SED 6922, 6946, 7036, EDAD 6949, 6954. 2 s.h.

7025 (SED) Seminar in Secondary Education. Study of selected topics chosen by the secondary education staff. Prereq.: Permission of instructor. May be repeated by nondegree students. 1–5 s.h.

7032 See TCED 7032.

7042 (SED) Professional Development for Classroom Teacher Educators. 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 with EMCE 7042. 2 s.h.

Educational Technology

5899 (EDTC) Integration of Instructional Computing. (3 s.h.)

6905 (EDTC) Technology in Instructional Settings. This course provides an introduction to the technological issues, theories and skills used in instructional settings. EDTC 6905 covers current technologies (equipment and software) that facilitate productivity and/or instructional

practice. Discussions and projects can be adapted for various target audiences. This course may not be used to satisfy the requirements for the technology endorsement, but this must be taken before technology endorsement courses are taken, unless a comparable course has been taken that satisfies the prerequisite. 3 s.h.

6920 (EDTC) Instructional Design. Focuses on a systematic method for the design and development of instruction. Relevant literature reviewed. Candidates will apply instructional design principles and practices. Portions of the course may be offered on-site, on-line, or as a combination. Prereq: EDTC 3771 or EDTC 6905, or permission of instructor. 3 s.h.

6930 (EDTC) Instructional Multimedia Authoring. This course focuses on the application of instruction design principles to the design and development of a multimedia instructional program. Portions of the course may be offered on-site, on-line, or as a combination. Prereq.: EDTC 3771 or EDTC 6905, or permission of instructor. 3 s.h.

6940 (EDTC) Distance Education and Online Information Dissemination. Focuses on various aspects of distance education and online dissemination from planning to delivery. Social, legal, and ethical issues will also be covered. Portions of the course may be offered on-site, on-line, or as a combination. Prereq.: EDTC 3771 or EDTC 6905, or permission of instructor. 3 s.h.

6945 (EDTC) Action Research in Educational Technology. Focuses on action research as it applies to educational technology. Topics include research questions, methods, data collection and analysis, and conclusions. Portions of the couse may be offered on-sit, on-line, or as a combination. Prereq.: Admission to program and demonstration of NETS-T competency. 3 s.h.

6950 (EDTC) Principles, Processes, and Supervision of Networking. Provides theoretical foundation and hands-on experience needed for individuals who supervise the installation and/or operation of a network. Topics include hardware/software, system analysis and design, protocols, security, and case studies. Prereq.: EDTC 3771 or EDTC 6905, or permission of instructor. 3 s.h.

6960 (EDTC) Educational Technology and Professional Development. Focuses on the needs of the adult learner in educational technology professional development situations. Related learning theory, professional development models, and applications will be covered. Portions of the course may be offered on-site, on-line, or as a combination. Prereq.: EDTC 3771 or EDTC 6905, or permission of instructor. 3 s.h.

6965 (EDTC) Technology Planning for Instructional Environments. Focuses on designing, developing a technology plan, and evaluating facilities and resources. Topics include hardware/software, staff development, curriculum integration, accessibility, legal and ethical considerations, and funding. Portions of the course may be offered on-site, distance learning, or as a combination. Prereq.: EDTC 3771 or EDTC 6905, or permission of instrutor. 3 s.h.

6970 (EDTC) Educational Computing and Technology. The design of courseware in integrating instructional technology into school settings. Participants will learn and design technology integration projects for curricular areas, including educational uses of desktop publishing, multimedia, print materials, graphics, and record keeping. Issues in establishing and maintaining instructional technology in schools, including Ohio School Net, EMIS, planning, organization, staffing, financing, coordinating, managing, and assessing are included. Prereq.: Completion of EDTC 3771 or EDTC 6905 or novice training certificate from the State Board of Education or permission of chairperson. 4 s.h.

6971 (EDTC) Educational Internet Use and Site Design. In-depth study of Internet uses within instruction. Topics include accessing teaching-learning resources, audio, visual, graphic design, and site development. Students will design their own website using HTML, DHTML, JavaScript, self-generated graphics, audio, and FTP protocols. Prereq.: EDTC 6970. 4 s.h.

6973 (EDTC) Directed Field Experience in Educational Technology. An opportunity for students to apply knowledge and skills through a directed field experience project in a working environment. The directed field experience requires submission of a formal project, paper, or research study relative to a computer education and technology program for an educational setting within parameters decided by the student's field experience supervisor based upon the nature of the field setting and discussions with the student. (Students selecting a thesis option will not be required to take this course). Prereq.: SED 6922, 6936, EDTC 6970, 6971, or permission of chairperson. 2 s.h.

6985 (EDTC) Portfolio in Educational Technology. Designed to highlight candidate's knowledge of educational technology. Candidates may modify assignments from prerequisite courses to demonstrate knowledge and skills; modifications will not alter grades earned in other EDTC courses. Portfolio reviewed by EDTC faculty. Must be taken during the same semester as EDTC 6990 and successfully completed by the end of the fifth week of the semester. Prereq.: Admission to program and EDTC 6920, 6930, 6940, 6945, 6950, 6960, and 6965. 1 s.h.

6990 (EDTC) Practicum in Educational Technology. Requires that the graduate candidate perform educational technology tasks in an instructional setting for a minimum of 30 clock hours. Candidate must enroll in this course during the same semester as EDTC 6985. Course completed in the last 10 weeks of the semester. Prereq.: Admission to program and EDTC 6920, 6930, 6940, 6945, 6950, 6960, 6965, 6985. 2 s.h.

Teacher Education

6901 (TCED) National Board for Professional Teaching Standards (NBPTS) Assessment Center. The participants of this course will practice for the National Board for Professional Teaching Standards Assessment Center entries, which emphasize content knowledge. Participants will learn how to assess their own content knowledge. They will continue to write their NBPTS portfolio entries with direction from the professor, an NBCT mentor, and feedback from peers. Helpful aids, techniques, technology, and resources will be accessed. Prereq.: Baccalaureate degree, three years of teaching, currently teaching, NBPTS candidate. 3 s.h.

6902 (TCED) National Board for Professional Teaching Standards (NBPTS) Portfolio Development. The participants of this course will write their National Board for Professional Teaching Standards portfolio with direction from the professor, an NBCT mentor, and feedback from peers. Helpful aids, techniques, and resources will be accessed. Participants will learn how to assess their own teaching and how to best represent themselves through writing, evidence, artifacts, and videotapes. Prereq.: Baccalaureate degree, three years of teaching, currently teaching, NBPTS candidate. 4 s.h.

6903 (TCED) National Board for Professional Teaching Standards (NBPTS) Advanced Candidacy. The participants of this course need an additional year in obtaining National Board for Professional Teaching Standards certification and want to take advantage of guidance in demonstrating they are accomplished teachers. This course allows candidates to choose either a portfolio or an assessment center entry to intensely address, as it helps candidates analyze the development needed to clearly, consistently, and convincingly address the NBPTS entry in writing. Prereq.: Baccalaureate degree, three years of teaching, currently teaching, NBPTS

advanced candidate. 1 s.h.

6904 (TCED) National Board Certified Teacher (NBCT) Facilitator/Mentor. The participants of this course will learn how to mentor/facilitate teachers through writing their National Board for Professional Teaching Standards portfolio and research content for the NPBTS Assessment Center. It is also designed for teachers who are mentoring entry-year teachers. Mentoring and facilitating techniques will be researched and practiced. Prereq.: Baccalaureate degree, three years of teaching, currently teaching, National Board certified teacher or Pathwise-trained, currently mentoring. One semester hour per mentee up to four. May be repeated. 1 s.h.

6922 (TCED) Principles of Instruction. A course for practitioners dealing with principles of pedagogy for both traditional and nontraditional classroom settings. Emphasis is on relationships between instruction and learning outcomes. Historical and cognitive bases for instructional strategies are examined in light of student, teacher, and curriculum variables. Prereq.: Admission to the School of Graduate Studies and Research. 3 s.h.

6934 (TCED) Assessment in Education. Issues in the field of assessment in education. Readings and discussions analyze the implementation of, consequences of, and alternatives for assessment processes in school settings. Final project involves the investigation, practical application, and analysis of an assessment issue of specific interest. Prereq.: Admission to the School of Graduate Studies and Research. 3 s.h.

6936 (TCED) Fundamentals of Curriculum Development. Historical and social bases for curriculum development in schools in the United States. Principles for determining content and its sequence and grade placement. Theoretical issues and patterns of cultural organization. (Note: The catalog number of this course will change to 7036.) 3 s.h.

6946 (TCED) Supervision of Instruction. A course dealing with the supervision of classroom teachers and other personnel for those aspiring to be principals or supervisors. Classroom observation systems, professional development programs, accountability models, and common staff relationship problems are examined. 3 s.h.

6951 (TCED) Interpersonal Communications for Educators. Techniques of communicating effectively with teachers, administrators, nonteaching personnel, pupils, and parents. Organizing the overall communications programs within the school. Related problems. Prereq.: Admission to the School of Graduate Studies and Research. 3 s.h.

6959 (TCED) Law and Ethics for the Classroom Teacher. Examination of the legal, ethical, and civic dimensions and interrelations in teaching and schooling from the standpoint of the roles of the teacher and student. Prereq.: Admission to the School of Graduate Studies and Research. 3 s.h.

6999 (TCED) Proactive Grantseeking. Study of recent trends in grantseeking (values-based grantseeking, proactive grants systems, looping, etc.); developing an understanding of the grants marketplace; developing and refining grant-winning ideas; examining the role of teacher, administrator, and community members in grantseeking; using advisory committees/advocacy groups; writing grant proposals; government and private funding sources; choosing the correct marketplace; and follow-up procedures. 3 s.h.

7032 (TCED) Theories of Supervision. Theories germane to supervision in education, from research and theory in education, business, and the applied behavioral sciences, with emphasis on clinical supervision. 3 s.h.

7036 See TCED 6936.

Theater and Dance

Frank Castronovo, Chair
1250 Bliss Hall
(330) 941-3810
facastronovo@ysu.edu

Theater

5864 Advanced Directing. (3 s.h.)

University Policies

Graduate Student Grievance Procedure

The graduate student grievance procedure provides the graduate students at YSU with a formal channel through which complaints concerning academic matters may be heard. It creates a system whereby the student may receive assistance in pressing a claim within the organization of the University. Informal discussions between persons directly involved in a grievance are essential in the early stages of a dispute and should be encouraged at all stages. An equitable solution to the problem should be sought before the respective persons directly involved in the case have assumed official or public positions that might tend to polarize the dispute and make resolution more difficult. If a problem still exists after discussion, the student should bring the complaint to the attention of the graduate program director and department chair. If the problem remains unresolved, the student should bring the complaint to the School of Graduate Studies and Research.

Scope

The procedure provides the student with an opportunity to appear to seek redress for concerns involving an academic or administrative practice. This procedure may not be used as a means of modifying or changing departmental, University and/or School of Graduate Studies and Research policies, but may be used to address policy issues. The Graduate Student Grievance Committee will be responsible for coordinating and implementing this formal procedure. The Committee membership will be appointed by Graduate Council and will be composed of three full-service faculty chosen by Graduate Council, three graduate students, and the designee of the vice president for Student Affairs. Any matters pertaining to conflict of interest concerning a particular grievance shall be resolved by the Committee. Two students and two faculty shall constitute a quorum. Any action taken by the Committee shall require a majority vote of a quorum.

Procedure

Before initiating the formal procedure, any student who has a complaint is urged to resolve the conflict through informal discussion as described above. If such discussion fails to resolve the matter, the following procedure should be implemented:

Step 1

A) The student must submit the Graduate Student Grievance Form to the chair of the Graduate Grievance Committee within twenty-four school days (a school day is defined as any day, including Saturdays, on which classes are conducted) following an event or the student's awareness of a situation that the student wishes to grieve. Within six school days after the student files the form with the Grievance Committee chair, the committee shall designate three of its members, two faculty and one student, to serve as a subcommittee to attempt to resolve the issue. The subcommittee shall meet with each involved party either on an individual basis, or in a joint conference, as deemed appropriate.

B) Within six school days after the subcommittee completes its conferences, it shall issue a disposition notice concerning the grievance, together with a form upon which the student may indicate

a) acceptance or rejection of the disposition, and

b) a determination to pursue or not to pursue the issue further. The student must sign the Grievance Form and forward it to the chair of the Graduate Student Grievance Committee within six school days after receiving the disposition.

Step 2

A) If the student or person against whom the grievance was filed rejects the disposition, the student must submit a formal written grievance to the chair of the Graduate Student Grievance Committee within six school days. The Grievance Committee may waive the deadline for submitting the formal written grievance. In this and all subsequent steps of the grievance process, the student is entitled to, without cost for the services, an advocate from the Office of the Vice President for Student Affairs, or may employ at his/her own expense any other advocate. The individual against whom the grievance is directed may also be represented by an advocate.

B) Within 18 school days of the receipt of the formal written grievance, the Graduate Student Grievance Committee will hold a hearing on the grievance. All parties shall be notified well in advance of the day, time, and place of the hearing. At least three school days prior to the hearing, the Committee will receive written materials from the affected parties so that the Committee members have an opportunity to review them. This does not preclude the admission of additional written materials at the hearing. At the hearing itself, the following rights are guaranteed all parties: each will appear, each may be assisted by an advocate, each may speak, each may present pertinent relevant evidence, each may confront those expressing opposing viewpoints, and each may rebut evidence. After the hearing has been concluded, the Grievance Committee will meet in private and within six school days reach a decision.

Implementation

The Committee's disposition shall be signed by its chair and forwarded to the student and faculty/staff members who were parties of the grievance, the dean of Graduate Studies, the chair or director/head of the department where the faculty or staff member is located, and the Provost. Copies of the disposition, along with a summary of the substantive issues of the grievance, shall be placed in the student's file, as well as in the faculty or staff member's or administrator's personnel file. A master file of all pertinent documents of all grievances shall be kept in the School of Graduate Studies and Research. The Grievance Committee decision is final and allows for a change of grade.*

* Revision approved by the Graduate Faculty on June 3, 1999.

Graduate Faculty

Administrative Members

David C. Sweet, Ph.D., President
Ikram Khawaja, Ph.D., Provost and Vice President for Academic Affairs
Peter J. Kasvinsky, Ph.D., Dean, School of Graduate Studies and Research
Shearle Furnish, Ph.D., Dean, College of Liberal Arts and Social Sciences
Betty Jo Licata, Ph.D., Dean, Williamson College of Business Administration
Philip Ginnetti, Ph.D., Dean, Beeghly College of Education
Martin Abraham, Ph.D., Dean, Rayen College of Science, Technology, Engineering, and Mathematics
Joseph Edwards, M.M., Interim Dean, College of Fine and Performing Arts
Janice Elias, Ph.D., Interim Dean, Bitonte College of Health and Human Services

Faculty Members

Accounting and Finance

Huaiyu (Peter) Chen, Associate Professor: B.A., Wuhan University, P.R. China, 1997; M.B.A., Clarkson University, New York, 1999; Ph.D., Syracuse University, 2003.

David E. Stout, Professor: B.S., LaSalle College, 1973; M.B.A., Ph.D., University of Pittsburgh, 1978, 1982.

Ronald P. Volpe, Professor: B.S.B.A., Youngstown State University, 1964; M.B.A., Central Michigan University, 1968; Ph.D., University of Pittsburgh, 1975.

Fran Marie Wolf, Professor: B.A., Miami University, 1974; M.B.A., Youngstown State University, 1988; Ph.D., Kent State University, 1994.

Art

Samuel Adu-Poku, Assistant Professor: B.A., University of Science and Technology, Ghana, 1987; M.Ed., University of New Brunswick, 1995; Ph.D., The University of British Columbia, 2002.

Phillip Chan, Professor: B.A., M.F.A., University of California, Berkeley, 1971, 1976.

Dragana Crnjak, Assistant Professor: B.F.A., University of Akron, 2002; M.F.A., Virginia Commonwealth Unviersity, 2004.

David Gill,* Assistant Professor: B.F.A., M.A., University of Illinois, 1989, 1996; Ed.D., Northern Illinois University, 2008.

Greg Moring, Associate Professor: B.F.A., The State University of New York at New Paltz, 1973; M.F.A., Maryland Institute College of Art, 1975.

Michael T. Moseley, Professor: B.F.A., M.F.A., Texas Tech University, 1973, 1976.

Michelle Nelson, Assistant Professor: B.F.A., Herron School of Art, 1993; M.F.A., Indiana University, 1998.

Patricia J. Sarro, Associate Professor: B.A., Fordham University, 1971; M.A., University of Missouri, 1975; M.A., M.Ph., Ph.D., Columbia University, 1988, 1989, 1995.

Stephanie L. Smith, Associate Professor: B.A., Washington and Lee University, 1989; M.A., Ph.D., Rutgers University, 1988, 2000.

Biological Sciences

David K. Asch, Associate Professor: B.S., University of Nebraska–Lincoln, 1981; M.S., Creighton University, 1983; Ph.D., The University of Kansas Medical Center, 1991.

Jonathan J. Caguiat, Assistant Professor: B.S., University of Michigan, 1988; Ph.D., Michigan State University, 1995.

Chester R. Cooper, Jr., Professor: B.S., University of Pittsburgh, 1979; M.A., Ph.D., University of Texas, 1983, 1989.

Diana L. Fagan, Associate Professor: B.S., University of Texas Medical Branch, 1976; Ph.D., The University of Texas Southwestern Medical Center at Dallas, 1985.

Carl Johnston, Associate Professor: B.S., University of Manitoba, 1981; M.S., University of Alaska, 1986; Ph.D., University of Cincinnati, 1992.

Robert E. Leipheimer, Professor: B.A., Thiel College, 1972; M.S., Slippery Rock University of Pennsylvania, 1979; Ph.D., The Ohio State University, 1981.

Jill M. Tall, Assistant Professor: B.S., Arizona State Unviersity, 1996; Ph.D., Kent State University, 2001.

John D. Usis, Professor: B.S., University of California, Berkeley, 1971; M.S., Youngstown State University, 1985; Ph.D., Kent State University, 1990.

Gary R. Walker, Professor: B.A., University of Colorado, 1977; Ph.D., Wayne State University, 1984.

Mark D. Womble, Associate Professor: B.S., Texas Christian University, 1975; M.S., University of Kentucky, 1978; Ph.D., University of Michigan, 1983.

Chemistry

G. K. Balendiran, Associate Professor: BSc. (Hons), University of Sri Lanka, 1986; Ph.D., University of Wisconsin-Madison, 1991.

Larry S. Curtin, Associate Professor: B.S., Northern Illinois University, 1985, M.S.; Ph.D., University of Wisconsin–Madison, 1986, 1990.

Allen D. Hunter, Professor: B.Sc., Ph.D., University of British Columbia, 1981, 1985.

John A. Jackson, Associate Professor: B.A., University of Minnesota, 1982; Ph.D., The University of Iowa, 1990.

Friedrich W. Koknat, Professor: B.S. (Vordiplom), Justus Liebeg-University of Giessen, West Germany, 1959; Diplom-Chemiker, University of Geissen, Germany, 1963; Doktors Der Naturwissenschaften, University of Geissen, Germnay, 1965.

Brian Leskiw, Assistant Professor: B.S., Niagara University, 1998; Ph.D., The Pennsylvania State University, 2003.

Clovis Linkous, Professor: B.S., Purdue University, 1976; Ph.D., Michigan State University, 1983.

Sherri R. Lovelace-Cameron, Associate Professor: B.S., Drexel University, 1986; Ph.D., University of Pittsburgh, 1992.

Howard D. Mettee, Professor: B.A., Middlebury College, 1961; Ph.D., University of Calgary (Canada), 1964.

Daryl W. Mincey, Professor: B.S., M.S., Ph.D., University of Cincinnati, 1972, 1974, 1979.

Peter Norris, Professor, B.S., University of Salford, 1986; Ph.D., The Ohio State University, 1992.

Michael A. Serra, Associate Professor: B.S., B.A., Adrian College, 1984, 1984; Ph.D., Iowa State University, 1990.

Josef B. Simeonsson, Associate Professor: B.S., Unviersity of North Carolina, 1986; Ph.D., University of Florida, 1990.

Nina V. Stourman, Assistant Professor: B.S., M.S., Ph.D., Moscow State University, 1984, 1992.

Timothy R. Wagner, Professor: B.S., University of Wisconsin–River Falls, 1981; Ph.D., Arizona State University, 1986.

Civil/Environmental and Chemical Engineering

Javed Alam, Professor: B.Sc., B.Tech., Kanpur University (India), 1972, 1978; M.Engr., Asian Institute of Technology, 1979; Ph.D., Case Western Reserve University, 1982.

Anwarul Islam,* Assistant Professor: B.S., Bangladesh Univ. of Engin. and Tech., 1992; M.S., Florida State University, 2000; Ph.D., Florida State University, 2005.

Scott C. Martin, Professor: B.S., M.S., Ph.D., Clarkson University, 1977, 1979, 1984.

Douglas Price, Associate Professor: B.S., The Pennsylvania State University, 1984; M.S., Ph.D., University of Notre Dame, 1986, 1988.

Communication

Daniel J. O'Neill,* Professor: B.A., Wayne State University, 1961; M.A., Bowling Green State University, 1962; Ph.D., Michigan State University, 1969.

Computer Science and Information Systems

Alina Lazar, Associate Professor: B.S., Western University of Timisoara, 1995; Ph.D., Wayne State University, 2002.

John R. Sullins, Associate Professor: B.S., Massachusetts Institute of Technology, 1983; M.S.,

* Associate member.

University of Rochester, 1985; Ph.D., University of Maryland, 1990.

Counseling and Special Education

Margaret L. Briley,* Assistant Professor and Chair: B.S., Indiana University of Pennsylvania, 1976; M.Ed., Georgia State University, 1981; Ed.D., University of Pittsburgh, 1999.

Marianne K. Dove, Professor: B.S., Wittenberg University, 1969; M.S., Youngstown State University, 1983; Ph.D., Kent State University, 1986.

Silvia Imler, Assistant Professor: B.S., East Texas State University, 1975; M.S., Youngstown State University, 1986; M.T.S., Logos Graduate School, 1989; Ph.D., Oxford Graduate School, 1993.

Deborah Jackson, Assistant Professor, B.S., Baylor University, 1980; M.A, M.S., Ph.D., Mississippi State University, 1989, 1997, 2001.

Victoria E. Kress, Associate Professor: B.A., Baldwin-Wallace College, 1993; M.A., Ph.D., The University of Akron, 1995, 1999.

Sally Lewis, Assistant Professor: B.S., M.A., Ph.D., Kent State University, 1969, 1975, 1999.

Don Martin, Professor: B.A., Roanoke College, 1974; M.S., Radford University, 1976; Ph.D., North Texas State University, 1981.

Kenneth L. Miller, Assistant Professor: B.A., Ph.D., Purdue University, West Lafayette, 1979, 1990; M.S., Purdue University, Calumet, 1985.

Jake J. Protivnak,* Assistant Professor: A.A., Ambassador University, 1996; B.S., Andrews University, 1998; M. Ed., Kent State University, 2002; Ph.D., Ohio University, 2005.

Criminal Justice

James A. Conser, Professor Emeritus: A.B., Youngstown State University, 1971; M.S., Michigan State University, 1974; Ph.D., Kent State University, 1980.

John M. Hazy,* Assistant Professor: B.A., Youngstown State University, 1988; M.A., Ph.D., Kent State University, 1990, 1995.

Christian C. Onwudiwe,* Assistant Professor: B.A., M.A., Southern University and A&M College, 1986, 1988; M.A., Southern University at New Orleans, 1998; Ph.D., Howard University, 1995.

C. Allen Pierce, Professor: B.S., M.S., Michigan State University, 1968, 1970; Ph.D., Kent State University, 1980.

Economics

Ou Hu, Assistant Professor: B.A., Beijing Technology and Business University, 1997; M.A., Ph.D., West Virginia University, 2001, 2004.

Joseph Palardy, Associate Professor: B.S., Frostburg State University, 1997; Ph.D., West Virginia University, 2002.

* Associate member

Dennis A. Petruska,* Professor: B.A., University of Pittsburgh, 1973; M.A., Ph.D., The Ohio State University, 1975, 1984.

Tod Porter, Professor: A.B., Monroe Community College, 1976; B.A., Ph.D., Syracuse University, 1978, 1984.

Teresa M. Riley, Professor: B.A., Wittenberg University, 1978; M.A., Ph.D., Syracuse University, 1983, 1984.

Yogesh Uppal,* Assistant Professor: B.A., M.A., University of Delhi, 1998, 2000; Ph.D., University of California, Irvine, 2006.

Ebenge E. Usip, Professor: B.S., M.A., The State University of New York at Albany, 1974, 1976; Ph.D., University of Connecticut, 1984.

Yaquin Wang, Associate Professor: B.A., Beijing Technology and Business University, 1997; Ph.D., The University of Kansas, 2002.

Educational Foundations, Research, Technology, and Leadership

Richard C. Baringer, Assistant Professor: B.S., Kent State University, 1969; M.Ed., The University of Akron, 1995; Ed.D., Youngstown State University, 2004.

Robert J. Beebe, Professor: B.S., Harvard University, 1967; M.S., Ed.D., The College of William & Mary, 1971, 1974.

Paul Carr, Assistant Professor: B.A., York University, 1987; M.P.A., Queen's University, 1988; M.Ed., Ed.D., University of Toronto, 1992, 1996.

Gunapala Edirisooriya, Professor: B.Com., University of Ceylon, 1967; M.Litt., University of Glasgow, 1977; M.A., Ph.D., University of Delaware, 1988, 1990.

Donna McNierney, Associate Professor: B.S., M.A., D.Ed., Ball State University, 1967, 1981, 1983; M.S., Butler University, 1973; M.S., Kent State University, 2004.

Charles B. Vergon, Professor: B.A., Denison University, 1968; J.D., University of Michigan, 1971.

Electrical and Computer Engineering

Jalal Jalali, Professor: B.S., M.S., Ph.D., University of Missouri, Columbia, 1979, 1980, 1984.

Frank X. Li, Assistant Professor: B.S., The Ohio State University, 1996; M.S., Youngstown State University, 1999; Ph.D., Case Western Reserve University, 2005.

Faramarz Mossayebi, Associate Professor: B.E., M.S., M.S., Youngstown State University, 1981, 1987, 1990; Ph.D., The University of Akron, 1994.

English

Kevin Ball, Associate Professor: B.A., Truman State University, 1992; M.A., Truman State University, 1994; Ph.D., University of Nebraska–Lincoln, 2000.

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* Associate member

Christopher Barzak,* Instructor: B.A., M.A., Youngstown State University, 1998, 2003.

Bege Bowers, Professor: B.A., Vanderbilt University, 1971; M.A., Ph.D., The University of Tennessee, 1973, 1984.

Philip Brady, Professor: B.A., Bucknell University, 1977; M.A., University of Delaware, 1979; M.A., San Francisco State University, 1986; Ph.D., The State University of New York at Binghamton, 1990.

Steven Brown, Professor: B.A., University of California, Santa Cruz, 1974; M.A., San Diego State University, 1979; Ph.D., University of Pittsburgh, 1996.

Jeffery M. Buchanan, Associate Professor: A.B., Ph.D., University of Michigan, 1990, 2002; M.A., University of Pittsburgh, 1997.

Suzanne Diamond, Associate Professor: B.A., Ph.D., Rutgers University, 1986, 1996.

Shearle Furnish, Professor: B.A., Transylvania University, 1975; M.A., Ph.D., University of Kentucky, 1978, 1984.

Julia M. Gergits, Professor: B.A., DePaul University, 1978; M.A., The Pennsylvania State University, 1980; Ph.D., University of Minnesota, 1987.

Jay Gordon, Associate Professor: B.A., Brandeis University, 1991; M.A., Ph.D., Carnegie Mellon University, 1995, 2001.

William Greenway, Professor: B.A., Georgia State University, 1970; Ph.D., Tulane University, 1984.

Patricia M. Hauschildt, Associate Professor: B.S., University of Wisconsin–River Falls, 1983; M.A., Ph.D., University of Wisconsin–Madison, 1991, 1995.

Scott Leonard, Professor: B.A., M.A., Humboldt State University, 1987, 1988; Ph.D., The Ohio State University, 1992.

Sherry L. Linkon, Professor: B.A., Macalester College, 1980; M.A., University of Denver, 1983; Ph.D., University of Minnesota, 1990.

Gail Okawa, Professor: B.A., University of Hawai'i, 1964; M.A., Duke University, 1967; Ph.D., Indiana University of Pennsylvania, 1994.

Steven Reese,* Professor: B.A., Bucknell University, 1981; M.A., Ph.D., University of Delaware, 1983, 1988.

Gary M. Salvner, Professor: B.A., Valparaiso University, 1968; M.Ed., University of Missouri–Columbia, 1970; Ph.D., University of Michigan, 1977.

James J. Schramer, Professor: B.A., M.A., University of Washington, 1966, 1974; Ph.D., University of Minnesota, 1987.

Dolores Sisco,* Assistant Professor: B.A., University of Baltimore, 1995; M.A., Central Michigan University, 1998; Ph.D., Michigan State University, 2005.

Stephanie A. Tingley, Professor: B.A., Wittenberg University, 1980; M.A., Ph.D., University of

Illinois at Urbana–Champaign, 1981, 1987.

Foreign Languages and Literatures

Ivania Del Pozo, Professor: B.A., Barry College, 1968; M.A., Queens College, The City University of New York, 1974; Ph.D., The City University of New York, 1977.

Ndinzi Masagara, Associate Professor: M.A., Ph.D., The University of Southern California, 1986, 1991.

Melissa Smith, Professor: B.A., Barnard College, Columbia University, 1973; M.A., Middlebury College, 1976; Ph.D., University of Pittsburgh, 1984.

Geography

Bradley Shellito, Associate Professor: B.S., Youngstown State University, 1994; M.A., The Ohio State University, 1996; Ph.D., Michigan State University, 2001.

Geological and Environmental Sciences

Isam E. Amin, Associate Professor: B.S., University of Khartoum, 1977; M.S., New Mexico Institute of Mining and Technology, 1983; Ph.D., University of Nevada, Reno, 1987.

Felicia Armstrong,* Assistant Professor: B.S., University of Dayton, 1987; M.S., Alabama A & M University, 1996; Ph.D., Oklahoma State University, 2003.

Jeffrey C. Dick, Associate Professor: B.S., M.S., Ph.D., Kent State University, 1980, 1982, 1992.

Alan M. Jacobs, Professor: B.S., City College, City University of New York, 1963; A.M., Ph.D., Indiana University, Bloomington, 1965, 1967.

Shane V. Smith,* Assistant Professor: B.S., University of Montana, 1997; M.S., New Mexico State University, 1999; Ph.D., Washington State University, 2005.

Health Professions

Carolyn K. Mikanowicz, Professor: B.S., Mansfield University of Pennsylvania, 1978; M.S., Ph.D., The Pennsylvania State University, 1985, 1990.

History

Daniel Ayana, Associate Professor: B.A., M.A., Addis Ababa University, 1980, 1984; Ph.D., University of Illinois, 1995.

L. Diane Barnes, Associate Professor: B.S., Fairmont State College, 1987; M.A., Ph.D., West Virginia University, 1995, 2000.

Raymond Emil Beiersdorfer, Professor: B.A., Queens College, City University of New York, 1979; M.S., Ph.D., University of California, Davis, 1982, 1992.

Brian Bonhomme, Associate Professor: B.A., The City College of the The City University of New York, 1993; Ph.D., The City University of New York Graduate Center, 2000.

Eleanor Congdon, Associate Professor: B.A., Williams College, 1988; M.A., University of

Minnesota, 1993; Ph.D., University of Cambridge—Gonville & Caius College, 1997.

Donna M. DeBlasio, Associate Professor: B.A., M.A., Youngstown State University, 1974, 1976; Ph.D., Kent State University, 1980.

William D. Jenkins, Professor: B.S., Loyola College, 1963; M.A., Ph.D., Case Western Reserve University, 1964, 1969.

Thomas E. Leary, Associate Professor: B.A., St. John Fisher College, 1969; Ph.D., Brown University, 1985.

Martha I. Pallante, Professor: A.B., Youngstown State University, 1977; M.A., The College of William and Mary, 1982; Ph.D., University of Pennsylvania, 1988.

David Simonelli, Associate Professor: B.A., University of Connecticut, 1988; M.A., Ph.D., Tulane University, 1991, 2001.

Helene Sinnreich, Assistant Professor: B.A., Smith College, 1997; M.A., Ph.D., Brandeis University, 2003, 2004.

Fred W. Viehe,* Associate Professor: B.A., Lewis and Clark College, 1971; M.A., Ph.D., University of California, Santa Barbara, 1974, 1983.

Anne York, Associate Professor: B.A., M.A., Ph.D., University of California, Los Angeles, 1974, 1979, 1992.

Human Ecology

Louise Pavia, Associate Professor: B.A., Carlow College, 1971; M.S., University of Pittsburgh, 1974; Ph.D., The University of Alabama at Birmingham, 1993.

Rachael Pohle-Krauza,* Assistant Professor: B.S., M.S., D'Youville College, 2001; Ph.D., University at Buffalo, 2007.

Human Performance and Exercise Science

Frank Bosso, Professor, B.S., Slippery Rock University, 1978; M.S., West Virginia University, 1979; Ph.D., NEOUCOM/Kent State University, 1990.

Marcia Matanin, Professor: B.S., Youngstown State University, 1987; M.S., Kent State University, 1989; Ph.D., The Ohio State University, 1993.

Michele McCarroll,* Assistant Professor: B.S., Ohio University, 1997; M.Ed., Cleveland State University, 1998; Ph.D., The Ohio State University, 2005.

Industrial and Systems Engineering

Martin Cala, Professor: B.S.E., Duke University, 1978; M.S., Ph.D., The State University of New York at Binghamton, 1987, 1990.

Hojjat Mehri, Professor: B.S.E., Abadan Institute of Technology, 1969; M.S., Ph.D., Illinois Institute of Technology, 1973, 1981.

* Associate member

Management

R. V. Eunni, Associate Professor: M.S., University of Bath, 1997; D.B.A., Boston University, 2003.

Birsen Karpak, Professor: B.S., D.B.A., Ph.D., University of Istanbul, 1966, 1974, 1979.

Ram Kasuganti, Professor: B.S.M.E., Osmania University, 1968; M.S.I.E., Purdue University, 1970; M.B.A., D.B.A., Kent State University, 1974, 1976.

Anthony J. Kos, Associate Professor: B.S.B.A., M.B.A., Youngstown State University, 1983, 1987; Ph.D., Kent State University, 1997.

Clement Psenicka, Professor: B.S.B.A., Dyke College, 1969; M.A., D.B.A., Kent State University, 1972, 1976.

John B. Russo, Professor: B.S., Michigan State University, 1969; M.S., The State University of New York at Brockport, 1973; Ed.D., University of Massachusetts, 1977.

Marketing

Cynthia E. Anderson, Professor: B.S., Youngstown State University, 1973; M.A., The Ohio State University, 1976; Ed.D., The University of Akron, 1990.

Bart Kittle, Associate Professor: B.S., M.B.A., West Virginia University, 1968, 1973; Ph.D., University of Alabama, 1989.

Mark Toncar, Professor: B.B.A., M.B.A., Ph.D., Kent State University, 1979, 1981, 1994.

Mathematics and Statistics

Guang-Hwa (Andy) Chang, Professor: B.S., National Taiwan Ocean University, 1981; M.S., Ph.D., Texas Tech University, 1987, 1993.

Jacek Fabrykowski, Professor: M.S., University of Warsaw, Poland, 1973; Ph.D., Mathematical Institute of the Polish Academy of Science, 1980.

Frank Ingram III,* Assistant Professor: B.S., North Carolina Agricultural and Technical State University, 2000; M.S., Ph.D., North Carolina State University, 2003, 2006.

Steven L. Kent, Professor: B.A., Adelphi University, 1975; M.A., Ph.D., University of Pittsburgh, 1979, 1982.

G. Jay Kerns, Associate Professor: B.A., Glenville State College; M.A., Ph.D., Bowling Green State University, 2000, 2004.

Roy A. Mimna, Associate Professor: B.A., M.A., The Ohio State University, 1966, 1967; J.D., Pennsylvania State University, 1975; M.S., Youngstown State University, 1987; Ph.D., Rhodes University (South Africa), 2002.

Anita C. O'Mellan, Professor: B.S., Southern Illinois University, 1987; M.S., Texas A&M University, 1988; Ph.D., Memphis State University, 1993.

Zbigniew Piotrowski, Professor: B.S., M.S., Ph.D., University of Wroclaw, 1974, 1976, 1979.

* Associate member

Nathan P. Ritchey, Professor: B.S., Mansfield University of Pennsylvania, 1984; M.S., Ph.D., Carnegie Mellon University, 1986, 1989.

Stephen E. Rodabaugh, Professor: B.A., M.A., Ph.D., University of Missouri-Columbia, 1970, 1971, 1974.

Thomas Smotzer, Professor: B.M., Baldwin-Wallace College, 1988; M.A., Ph.D., Indiana University, 1991, 1995.

Angela Spalsbury, Associate Professor: B.S., M.A., Ph.D., Kent State University, 1989, 1991, 1996; M.Sc., University of Pretoria (South Africa), 1992.

Jamal K. Tartir, Associate Professor: B.A., Hiram College, 1991; M.A., Miami University, 1993; Ph.D., Ohio University, 1998.

Eric J. Wingler, Professor: B.S., M.A., Eastern Illinois University, 1974, 1975; Ph.D., University of Illinois, 1982.

Mechanical Engineering

Hyun W. Kim, P.E., Professor: B.S., Seoul National University, 1968; M.S., University of Michigan, 1975; Ph.D., The University of Toledo, 1980.

Hazel Marie, D.A.S., Assistant Professor: B.S., The University of Texas at Austin, 1984; M.S., Youngstown State University, 1998; Ph.D., The University of Akron, 2005.

Elvin B. Shields, P.E., Professor: B.E.M.E., Youngstown State University, 1974; M.S.M.E., Ph.D., The University of Akron, 1979, 1991.

Daniel H. Suchora, P.E., Professor: B.E., M.S., Youngstown State University, 1968, 1970; Ph.D., Case Western Reserve University, 1973.

Music

Stephen W. Ausmann, Professor: B.M., Capital University, 1975; M.A., Ph.D., The Ohio State University, 1984, 1991.

Laura Buch, Associate Professor: B.A., B.A., Oakland University, 1977, 1977; M.A., University of Louisville, 1982; Ph.D., Eastman School of Music, 1993.

Michael R. Crist, Professor: B.M.E., Ithaca College, 1978; M.M., Youngstown State University, 1983; Ph.D., Kent State University, 1998.

Kent Engelhardt, Assistant Professor: B.M., M.M., Youngstown State University, 1986, 1993; Ph.D., University of Pittsburgh, 2001.

Darla Funk, Professor: B.A., M.A., University of Northern Colorado, 1967, 1975; Ph.D., Kent State University, 1985.

Stephen L. Gage, Professor: B.M., The State University of New York at Fredonia, 1978; M.M., Eastman School of Music, 1983; Ed.D., University of Illinois, 1994.

Christopher P. Heindenreich, Assistant Professor: B.M.E., Bowling Green State University, 1989; M.A., The Ohio State University, 1998; D.M.A., Indiana University, 2006.

David S. Morgan, Assistant Professor: B.M., M.M., D.M.A., The University of Texas, 1990, 1993, 1996.

Caroline Oltmanns, Professor: Diploma, Greiburg, Germany, 1989; M.M., D.M.A., The University of Southern California, Los Angeles, 1991, 1995.

Robert L. Rollin, Professor: B.A., The City College of New York, 1968; M.F.A., D.M.A., Cornell University, 1971, 1973.

Glenn Schaft, Associate Professor: B.M., Baldwin-Wallace College, 1982; M.A., Eastern Illinois University, 1983; D.M.A., University of Illinois at Urbana-Champaign, 1993.

William B. Slocum, Professor: B.F.A., M.M., The University of New Mexico, 1959, 1965.

James C. Umble, Professor: B.M., Susquehanna University, 1978; M.M., Bowling Green State University, 1984; D.M.A., University of Michigan, 1995.

Kathryn Umble, Assistant Professor: B.S., Youngstown State University, 1989; B.M., University of Michigan, 1983; M.M., Bowling Green State University, 1985; D.M.A., Michigan State University, 1998.

Nursing

Louise Aurilio, Associate Professor: B.S., Youngstown State University, 1982; M.S.N., University of Akron, 1986; Ph.D., University of Pittsburgh, 2000.

Dorcas Fitzgerald, Professor: B.S.N., M.S.N., University of Alabama, 1965, 1969; Ph.D., The Catholic University of America, 2001.

Patricia Hoyson, Associate Professor: B.S.N., The Pennsylvania State University, 1986; M.S.N., Kent State University, 1991; Ph.D., University of Pittsburgh, 2001.

Patricia A. McCarthy, Professor: B.S.N., Mercy College of Detroit, 1964; M.S.N., Wayne State University, 1966; Ph.D., University of Pittsburgh, 1982.

Nancy W. Mosca, Professor: B.S.N., M.S.N., University of Illinois, 1977, 1982; Ph.D., Case Western Reserve University, 1995.

Pamela M. Schuster, Professor: B.S.N., The Ohio State University, 1975; M.S.N., Kent State University, 1982; Ph.D., Case Western Reserve University, 1990.

Sharon Shipton, Professor: A.S., Community College of Beaver County, 1973; B.S.N., Slippery Rock State College, 1976; M.S.N., Edinboro State College of Pennsylvania, 1982; Ph.D., University of Pittsburgh, 1994.

Philosophy and Religious Studies

Brendan P.J. Minogue, Professor: B.A., Cathedral College, 1967; M.A., Ph.D., The Ohio State University, 1970, 1974.

Gabriel Palmer-Fernandez, Professor: B.S., Florida International University, 1977; M.A., West Georgia College, 1978; M.T.S., Harvard University, The Divinity School, 1981; A.M., Ph.D., Harvard University, 1988, 1992.

Bruce N. Waller, Professor: B.A., Louisiana Tech, 1968; M.A., Ph.D., University of North Carolina at Chapel Hill, 1975, 1979.

Physical Therapy

Weiqing Ge, Assistant Professor: B.S., Tianjin University, Tianjin, China, 1987; M.S., Xi'An Medical University, Xi'An, China, 1992; Ph.D., Peking Union Med. Coll. and Chinese Acad. of Medical Sc., China, 1996

Suzanne M. Giuffre,* Assistant Professor: B.S., Damion College, 1992; M.S., Temple University, 1997; Ed.D., University of Pittsburgh, 2007.

Marleen Iannucci, Associate Professor: B.A., Kent State University, 1973; B.S., Marquette University, 1979; M.S., Ph.D., The Ohio State University, 1986, 1990.

Nancy C. Landgraff, Associate Professor: B.S., University of Pittsburgh, 1982; M.H.S., University of Florida, 1988; Ph.D., University of Pittsburgh, 2004.

Kenneth E. Learman, Assistant Professor: B.S., State University of New York at Buffalo, 1989; M.Ed., Penn State University, 1992; Ph.D., University of Pittsburgh, 2007.

Cathy Bieber Parrott,* Assistant Professor: B.S., The University of Texas Medical Branch, 1984; Advanced Masters in Sports Medicine, University of Pittsburgh, 1994.

Physics and Astronomy

James H. Andrews, Professor: B.A., Bucknell University, 1979; J.D., University of Virginia School of Law, 1982; B.S., Cleveland State University, 1989; M.S., Ph.D., Case Western Reserve University, 1992, 1995.

James J. Carroll, Professor: B.S., Central State University, 1980; M.S., Oklahoma State University, 1984; Ph.D., The University of Texas at Dallas, 1991.

Michael Crescimanno, Associate Professor: B.A., Princeton University, 1985; Ph.D., University of California, Berkeley, 1991.

Tom N. Oder, Associate Professor: B.S., Makerere University, 1984; M.S., University of St. Andrews, 1986; Ph.D., Auburn University, 1999.

W. Gregg Sturrus, Professor: B.S., Hope College, 1983; Ph.D., University of Notre Dame, 1989.

Political Science

Sunil Ahuja,* Associate Professor: B.S., Northwest Missouri State University, 1990; M.A., Ph.D., University of Nebraska, 1992, 1995.

Cryshanna Jackson,* Assistant Professor:

Psychology

Michael Clayton, Assistant Professor: A.A., College of San Mateo, 1987; B.A., California State

* Associate member.

University, 1989; Ph.D., University of Nevada, 1998.

Jeffrey T. Coldren, Professor: B.A. Albright College, 1983; M.A., Ph.D., The University of Kansas, 1988, 1992.

William Rick Fry, Professor: B.S., Western Illinois University, 1972; M.A., Ph.D., Wayne State University, 1976, 1979.

Einar T. Ingvarsson, Assistant Professor: B.A., University of Iceland, 1997; M.S., University of North Texas, 2002; Ph.D., University of Kansas, 2005.

Jane Kestner, Professor: B.S., Ball State University, 1973; M.A., Ph.D., University of Notre Dame, 1975, 1978.

Sharon A. Stringer, Professor: B.S., Georgetown University, 1977; M.S., Ph.D., University of Miami, 1980, 1982.

Julie E. Thomas, Associate Professor: B.A., Sophia College, 1986; M.A., University of Bombay, 1988; Ph.D., The University of Tennessee, 1993.

Social Work

Shirley M. Keller, Associate Professor: B.A., Michigan State University, 1968; M.S.S.A., Ph.D., Case Western Reserve University, 1981, 1999.

Dennis Morawski, Associate Professor: B.S., Lake Superior State College, 1978; M.S.W., Wayne State University, 1980; Ph.D., The University of Tennessee, 1990.

Michael Murphy, Associate Professor: B.S., College of Holy Trinity, 1955; M.S.W., Boston College School of Social Work, 1961; Ph.D., Western Reserve University, 1974; M.S., Clark University, 1956.

Thelma Silver, Associate Professor: B.S., M.S.W., McGill University, 1969, 1971; Ph.D., Case Western Reserve University, 1995.

Lee R. Slivinske, Professor: B.A., Ohio University, 1969; M.S.S.A., Ph.D., Case Western Reserve University, 1976, 1983.

Teacher Education

Dora L. Bailey, Professor: B.S., M.S., Youngstown State University, 1969, 1980; Ph.D., Kent State University, 1984.

Tiffany Chrisman, Assistant Professor: B.S., M.Ed., Clarion Univerisity, 1976, 1982; Ph.D., University of Pittsburgh, 2005.

Lauren Cummins, Associate Professor: B.S., Dyke College, 1978; M.Ed., Kent State University, 1982; Ed.D., Nova Southeastern University, 2000.

Joyce A. Feist-Willis, Associate Professor: B.A., West Liberty State College, 1972; M.Ed., Ed.D., West Virginia University, 1974, 1982.

Betty Greene,* Instructor: B.S., M.Ed., Miami University, 1974, 1983.

Randy L. Hoover, Professor: B.A., Ph.D., The Ohio State University, 1969, 1984; M.S., Edinboro State University, 1977.

Hong Y. Kim, Professor: B.A., Sung Kyun Kwan University, 1964; M.Ed. Seoul National University, 1979; Ed.D., Ball State University, 1974.

Howard Pullman, Professor: B.A., M.A., University of Wisconsin, 1963, 1964; M.A., Ph.D., Columbia University, 1969, 1972.

Regina M. Rees, Assistant Professor: B.S., M.Ed., Youngstown State University, 1974, 2000; Ph.D., The University of Akron, 2005.

Gail Saunders-Smith,* Assistant Professor: B.S., M.A., Kent State University, 1974, 1977; M.S., Youngstown State University, 1980; Ph.D., The University of Akron, 1994.

Michael Theall,* Associate Professor: B.A., St. Anselms College, 1963; M.S., Ph.D., Syracuse University, 1976, 1980.

* Associate member.

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