THE MIAMI BULLETIN

General Bulletin of
Program Requirements
and Course Descriptions
2010-2011

Miami University
Oxford, OH 45056
www.muohio.edu

To All New Students:

Please keep this catalog—it contains the requirements that you must meet for graduation as you enter Miami University in 2010-2011. Miami, however, reserves the right to make changes to its programs. You are encouraged to check regularly with your academic program adviser for up-to-date information.

The information contained in this Bulletin is subject to change. No part of this Bulletin should be construed as a contract or offer to contract. This Bulletin is intended only as an informational guide to Miami University. It is the student's responsibility to know and follow current requirements and procedures at the departmental, divisional, and university levels.

Accreditation and Policies

Miami University is accredited by the Higher Learning Commission and a member of the North Central Association (*www.ncahigherlearningcommission.org* or 312-263-0456).

Miami University is approved by the State of Ohio Approving Agency for the training of veterans.

Miami University is authorized under Federal law to enroll non-immigrant alien students.

University Statement Asserting Respect for Human Diversity

Miami University is a community dedicated to intellectual engagement. Our campuses consist of students, faculty, and staff from a variety of backgrounds and cultures. By living, working, studying, and teaching, we bring our unique viewpoints and life experiences together for the benefit of all. This inclusive learning environment, based upon an atmosphere of mutual respect and positive engagement, invites all campus citizens to explore how they think about knowledge, about themselves, and about how they see themselves in relation to others. Our intellectual and social development and daily educational interactions, whether co-curricular or classroom related, are greatly enriched by our acceptance of one another as members of the Miami University community. Through valuing our own diversity, and the diversity of others, we seek to learn from one another, foster a sense of shared experience, and commit to making the university the intellectual home for us all.

We recognize that we must uphold and abide by University policies and procedures protecting individual rights and guiding democratic engagement. Any actions disregarding these policies and procedures, particularly those resulting in discrimination, harassment, or bigoted acts, will be challenged swiftly and collectively.

All who work, live, study, and teach in the Miami community must be committed to these principles of mutual respect and positive engagement that are an integral part of Miami's focus, goals, and mission.

University Statement of Non-Discrimination

Miami University is committed to providing equal opportunity and an educational and work environment free from discrimination on the basis of sex, race, color, religion, national origin, disability, age, sexual orientation, gender identity, military status, pregnancy or veteran status. Miami shall adhere to all applicable state and federal equal opportunity/affirmative action statutes and regulations.

The University is dedicated to ensuring access and equal opportunity in its education programs, related activities, and employment. Retaliation against an individual who has raised claims of illegal discrimination or cooperated with an investigation of such claims is prohibited.

Students and employees should bring questions or concerns to the attention of the Office of Equity and Equal Opportunity, Hanna House, 529-7157 (V/TTY) and 529-7158 (fax). Students and employees with disabilities may contact the Office of Disability Resources, 19 Campus Avenue Building, 529-1541 (V/TTY) and 529-8595 (fax).

All Miami Campuses are Smoke-Free

Effective August 1, 2008, Miami campuses are smoke-free environments. Smoking is prohibited in all Miami University-owned facilities and property. A designated smoking area is provided for guests at the Miami Inn, Marcum Conference Center, Simpson-Shade Guest House, Climer Guest Lodge, Patterson Place and any other location housing overnight guests.

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Miami University Academic Calendar

Visit the Office of the Registrar Website for the academic calendars containing important dates and deadlines for classes and registration.

www.units.muohio.edu/reg/calendars/index.php

General Information

Introduction

The *General Bulletin 2010-2011* is the academic guide for new students at Miami University.

Please keep this catalog—it contains the requirements that you must meet for graduation as you enter Miami University in 2010-2011. Miami, however, reserves the right to make changes to its programs. It is your responsibility to check regularly with your academic program adviser for up-to-date information. Consult your academic division's advising office for specific information on academic policies and procedures, degree programs, and requirements.

Mission of Miami University

"The Engaged University"

Miami University, a student-centered public university founded in 1809, has built its success through an unwavering commitment to liberal arts undergraduate education and the active engagement of its students in both curricular and co-curricular life. It is deeply committed to student success, builds great student and alumni loyalty, and empowers its students, faculty and staff to become engaged citizens who use their knowledge and skills with integrity and compassion to improve the future of our global society.

Miami provides the opportunities of a major university while offering the personalized attention found in the best small colleges. It values teaching and intense engagement of faculty with students through its teacher-scholar model, by inviting students into the excitement of research and discovery. Miami's faculty are nationally prominent scholars and artists who contribute to Miami, their own disciplines and to society by the creation of new knowledge and art. The University supports students in a highly involving residential experience on the Oxford campus and provides access to students, including those who are time and place bound, on its regional campuses. Miami provides a strong foundation in the traditional liberal arts for all students, and it offers nationally recognized majors in arts and sciences, business, education, engineering, and fine arts, as well as select graduate programs of excellence. As an inclusive community, Miami strives to cultivate an environment where diversity and difference are appreciated and respected.

Miami instills in its students intellectual depth and curiosity, the importance of personal values as a measure of character, and a commitment to life-long learning. Miami emphasizes critical thinking and independent thought, an appreciation of diverse views, and a sense of responsibility to our global future.

Miami University Values Statement

Miami University is a scholarly community whose members believe that a liberal education is grounded in qualities of character as well as of intellect. We respect the dignity of other persons, the rights and property of others, and the right of others to hold and express disparate beliefs. We believe in honesty, integrity, and the importance of moral conduct. We defend the freedom of inquiry that is the heart of learning and combine that freedom with the exercise of judgment and the acceptance of personal responsibility.

Brief History

An act of Congress signed by George Washington in 1792 stipulated that a university be located in the Miami Valley north of the Ohio River. The official act to establish Miami University was passed on February 17, 1809. Miami is the tenth oldest public university in the nation and takes its name from the tribe that once inhabited the area known as Ohio's Miami Valley.

Delayed by the War of 1812, instruction began in 1824 with a president, two faculty, and 20 students. Enrollment grew rapidly, reaching 250 by 1839.

In the 1830s, William Holmes McGuffey wrote the first of his *Eclectic Readers* while a Miami professor. Among the many talented young students was Benjamin Harrison who graduated in 1852; he was elected the 23rd president of the United States in 1888.

A few years after the Civil War, with changed conditions and advancing prices, the income of the university became insufficient to support its work. Miami closed in 1873, opening 12 years later when resources had accumulated and the state of Ohio began a policy of appropriating public funds for support.

Coeducation began in 1888; by 1903 there were more than 100 women on campus—one third of the total enrollment. Our first African American student, Nelly Craig, graduated in 1905.

Many other milestones have been reached. The concept of artist-in-residence began here. Beginning in 1835, four national fraternities were founded here, giving Miami a nickname, "Mother of Fraternities." Another nickname is "Cradle of Coaches," referring to the coaching success of so many former players and coaches. Ohio's first intercollegiate football game was played at Miami in 1888 against the University of Cincinnati.

In the beginning, the course of study at Miami was strictly classical. Over the years, new academic divisions were added to meet the changing needs of students and society: education in 1902, business in 1927, fine arts in 1929, graduate programs in 1947, engineering and applied science in 1959, and interdisciplinary studies in 1974.

In 1974, Miami acquired the Western College for Women, a 120-year-old private institution adjoining the Oxford campus.

Miami's Middletown and Hamilton campuses opened in 1966 and 1968, respectively. Also in 1968, Miami opened a European center, now named John E. Dolibois European Campus, in Luxembourg.

A number of campus buildings are listed in the National Register of Historic Places, including Elliott, Stoddard, and Peabody halls, and the Western College for Women Historic District. The McGuffey Museum is a National Historic Landmark.

About Miami

Miami is a public university of Ohio. Approximately 14,500 undergraduates and 1,800 graduate students are enrolled at the Oxford campus. About 225 of the undergraduates attend one or two semesters at the John E. Dolibois European Campus in Differdange, Luxembourg. Two commuter campuses in the nearby cities of Hamilton and Middletown enroll nearly 5,000 additional students.

Miami' Voice of America Learning Center in nearby West Chester, Ohio opened January 2009. Already serving 374 undergraduates and 166 graduate students, this multipurpose instructional facility will offer graduate and undergraduate courses and programs, as well as customized training

opportunities for business, industry, school districts, and government agencies.

Academic Divisions and Programs

Miami has six academic divisions: College of Arts and Science, Farmer School of Business, School of Education, Health and Society, School of Engineering and Applied Science, School of Fine Arts, and the Graduate School. Programs leading to associate, bachelor's, master's, Specialist in Education, and doctoral degrees are offered.

Graduate certificates are also available. Most undergraduate certificate programs are offered at the regional campuses.

Graduate degree programs are offered by all of the divisions. A graduate degree is also offered by the Institute of Environmental Sciences. Major areas, degrees, and certificates are listed at the bottom of page 7.

Location

The central campus of Miami University is located in Oxford, Ohio, just 35 miles north of Cincinnati and 45 miles southwest of Dayton. Both Cincinnati and Dayton International airports are within an hour's drive. U.S. Route 27 and S.R. 73 are the main highways to Oxford.

Oxford is a classic college town with a population of about 9,000 (excluding students). Uptown, adjacent to campus, are small shops, a movie theatre, and local eateries.

The university covers more than 1,900 acres in Oxford. Preservation of nature throughout the campus and community coupled with Miami's architectural continuity—modified Georgian design—explains why the campus is regarded as one of the most beautiful in the Midwest.

Resources

Computer and Information Technology Services

Information Technology Services (IT Services)
Main office: 302 Hoyt Hall, 513-529-5322
Support Desk: 103 Robertson Hall, 513-529-7900,
ithelp@muohio.edu
ITHelp Knowledge Base: *http://ithelp.muohio.edu*
Web entry point*: http://mymiami.muohio.edu*
Print center: 100 Gaskill Hall, 513-529-6065,
www.muohio.edu/printcenter

IT Services is the central IT organization at Miami, providing infrastructure and services to all Miami students, faculty, and staff.

All Miami students have access to an extensive array of computing services that will enhance their academic experience; these services include wired and wireless network service, Internet access, e-mail, file storage and web publishing space, specialized labs, etc. For answers to frequently asked questions about technology at Miami, please visit *www.muohio.edu/technologyguide*.

Technology Support

Students can obtain technology and support information around-the-clock via Miami's online IT Help Knowledge Base (*ithelp.muohio.edu*) or by contacting the IT Services Support Desk via phone (513-529-7900) or email (*ithelp@muohio.edu*).

Web-Based Services

myMiami (*mymiami.muohio.edu*), the university's web portal, allows students to register for classes, pay bills, check e-mail, access course materials, view university announcements, and much more. Students are encouraged to set myMiami as their browser's home page.

Student Computers

Miami strongly recommends that all students have a personally owned computer. Students are encouraged to purchase a laptop computer through the Miami Notebook Program (*www.muohio.edu/miaminotebook)*, which provides discounted laptops bundled with pre-installed Miami site-licensed software and on-campus services. Students who purchase computers outside of the Miami Notebook program can download the basic software required to use Miami's network services, at no cost, from *www.muohio.edu/software*.

Printing

Miami provides "Pay-for-Print" printers in many labs and other locations on campus. Please see the IT Help Knowledge Base for details. Additionally, IT Services provides walk up and online digital print and specialty binding services via the Print Center in Gaskill Hall (100 Gaskill Hall, 513-529-6065, *www.muohio.edu/printcenter*).

Continuing Education Programs

Lifelong Learning (LLL)
127 McGuffey, 513-529-8600

Lifelong Learning administers a broad array of credit and non-credit programs and services.

Credit programs are led by Miami University faculty and include the university summer session as well as local, domestic and study-abroad credit workshops, and the State of Ohio Post Secondary Enrollment Options Program (PSEOP).

Non-credit programs extend the educational resources of Miami University in outreach to a wide range of community members. LLL, an authorized passport agency, is the administrative home for the Miami University youth programming, the Institute for Learning in Retirement, and many opportunities, including online courses and customized professional development.

Graduate Student Associations

Graduate School
102 Roudebush Hall, 513-529-3734
www.muohio.edu/graduateschool/

HAVEN: Lesbian, Gay, Bisexual, Transgender, Queer, and Allies Graduate Student Organization provides a space for LGBTQ graduate students to find community both academically and socially. It forefronts graduate students' needs by discussing LGBTQ teaching, mentoring, writing, reading, and film series. The organization also works in coalition with other LGBTQ groups on campus (undergraduate, faculty, and staff).

The **Graduate Student Association (GSA)** represents all graduate students and promotes their academic, social, and economic aims. It maintains open channels of communication with other student organizations and with academic and administrative units of the university.

The association sponsors a Travel Assistance Fund to reimburse graduate students for travel expenses to professional meetings, conventions, conferences, and workshops.

The **Graduate Students of Color Association (GSCA)** aids graduate students by sponsoring academic programming, social, and cultural events from a diverse perspective. It also serves as an avenue of communication with the Graduate School and as a liaison between students of color and the university.

The **Latin American Graduate Student Association** provides mentorship and support to Latin American graduate students. The association provides safe, supportive, and enriching social and cultural experiences and works to increase the Latino graduate

student population. Students involved in the association also develop programming to educate the local community about the Latino culture.

Health Services

Health Services
Health Services Building
421 S. Campus Ave., 513-529-3000

The Student Health Service (SHS) provides general outpatient care for registered Miami University Students of all three campuses. Services provided include examination and treatment for illness and minor injuries, laboratory, x-ray, pharmacy, as well as specialty care in gynecology and travel immunizations. The SHS will submit claims to the student's insurance company. Please have your insurance card available when visiting the SHS.

Hospitalization and emergency care is available at McCullough-Hyde Memorial Hospital (513-523-2111).

Housing

Student Housing and Meal Plan Services
111 Shriver Center, 513-529-5000

Limited on-campus housing is available for graduate students. Single graduate students may also apply to live in a residence hall or in Heritage Commons; provisions are the same for graduate and undergraduate students.

Heritage Commons provides apartment-style university housing for upper-class students. The complex is comprised of 108 fully furnished apartments featuring four private bedrooms, two bathrooms, a living room, and an equipped kitchen. Exclusive parking is available for Heritage Commons residents.

Many graduate students rent private apartments in Oxford or neighboring areas. A list of Oxford rental property may be obtained from the Oxford Tenants Organization, 374 Shriver Center, 513-529-3439. Also, a weekly newspaper, the Oxford Press (513-523-4139), lists local apartment rentals in the classified ads.

Contract and Deposit

All students living in a residence hall sign a housing contract, an agreement to pay room rent and board, and pay a $330 housing deposit.

Dining Facilities

Our residence halls are served by multiple "all you care to eat" buffets, as well as several à la carte, food service locations managed by the university.

Libraries

King Library: 513-529-4141, *513-529-2800
Brill Science Library: Hughes Laboratories, 513-529-7200
Amos Music Library: 120 Center for Performing Arts, 513-529-2299
Gardner-Harvey Library:
Middletown campus, 513-727-3221, 513-529-4936
Rentschler Library: Hamilton campus, 513-785-3235
Southwest Ohio Regional Depository:
Middletown campus, 513-727-3474
Wertz Art and Architecture Library: 7 Alumni Hall, 513-529-6638
University Archives: Withrow Court, 513-529-6720
Western College Memorial Archives: Peabody Hall, 513-529-969

Miami University Libraries, which include four libraries on the Oxford campus and one on each regional campus, have many services and facilities of interest to graduate students. Each library specializes in specific academic fields of study, so you can find a place where you can research, study, meet with students and colleagues or talk with a librarian who specializes in your area of study.

Extended hours, including the 24-hour King Library, allow students to get the information they need any time of day. Our facilities offer wireless Internet access, laptop computer checkout, a reading room specifically for graduate students, a coffee shop and much more!

You can access over 3.5 million books, 156,000 maps, and tens of thousands of sound recordings, periodicals, videos, and DVDs many that can be accessed online without having to leave your home or office.

Research help is available via email, chat, instant messaging or by just dropping in.

Museums

Art Museum: Patterson Ave., 513-529-2232

The angular limestone and glass Art Museum, designed by Walter Netsch of Skidmore, Owings and Merrill, houses the university's permanent collection of more than 16,000 art objects from all parts of the world by internationally known artists. Rotating exhibitions, public lectures, gallery talks, performances, and other special events are offered throughout the year. The museum is accredited by the American Association of Museums.

Internships and independent studies are available through several academic departments. You can also volunteer to assist with events and activities at the museum.

William Holmes McGuffey Museum: 410 E. Spring St., 513-529-2232

William Holmes McGuffey compiled the first four volumes of the *Eclectic Readers* while a Miami faculty member from 1826 to 1836. His National Historic Landmark house serves as a teaching museum for University and regional history, nineteenth-century domestic architecture and material culture, personal items of the McGuffey family, a rare collection of *McGuffey Readers*, and for the history of literacy, reading and schooling.

Science Museums include:
Anthropology Museum, 180 Upham Hall, 513-529-2628
Karl E. Limper Geology Museum, 8 Shideler Hall, 513-529-3220
Willard Sherman Turrell Herbarium, 79 Upham Hall, 513-529-2755
Robert A. Hefner Zoology Museum, 100 Upham Hall, 513-529-4617

Western College Museum: Patterson Place, Patterson Ave., 513-529-4400

Western College Museum houses a permanent collection of paintings, silver, and furnishings. Patterson Place, located on the northwest corner of the Western College for Women Historic District, also serves as the office for Western College Alumnae Association, Inc.

Ohio Writing Project

Department of English
302 Bachelor Hall, 513-529-5245
www.muohio.edu/owp

The Ohio Writing Project (OWP) is part of the National Writing Project, a network of 200 sites around the country designed to train teachers of writing and improve student writing. The OWP offers summer workshops, oversees the English Department's Master of Arts in Teaching degree program, and conducts year-round in-service programs in Ohio's schools.

Psychology Clinic

Department of Psychology
39 Psychology Bldg., 513-529-2423

The Department of Psychology, as part of its doctoral program in clinical psychology, operates this clinic.

Psychotherapy, psychological assessment, and other mental health services are offered. There is a nominal fee. All records are confidential.

Safety

University Police: Police Services Center,
4945 Oxford Trenton Road
Non-Emergency/24 Hours: 513-529-2222
EMERGENCY (police, fire, medical): 911
Lost-and-Found Property: 513-529-8135
Fingerprinting Services: 513-529-2226

University Police, commissioned by the state of Ohio, ensure the safety and well-being of the university community and the security of university property.

Environmental Health and Safety: 6 Hughes Hall, 513-529-2829

Environmental Health and Safety Offices are responsible for the management of hazardous residual material, radiation safety, occupational, industrial, and laboratory safety, fire safety, and environmental management.

Scripps Gerontology Center

396 Upham Hall, 513-529-2914
www.scripps.muohio.edu

The mission of the Scripps Gerontology Center is to understand the evolving issues of an aging society, provide leadership to enhance lives across the life-course and to meet the needs of an aging society. We accomplish this mission through research, education, and service.

Current research includes health, disability, and longevity; long-term care systems and services; workforce issues; caregiving; and demography. The center assists faculty and students with research proposals and projects related to aging and awards several graduate research assistantships each year.

The center provides administrative support to the university's academic programs in aging and offers a number of special events each year, including the P.K. Whelpton lecture, Green Tea Day, invited speakers, and a brown bag discussion series.

Scripps Research Library and Resource Center contains gerontology publications, audio-visual aids, and curriculum materials for faculty and graduate student use.

Speech and Hearing Clinic

Department of Speech Pathology and Audiology
2 Bachelor Hall (513) 529-2500
www.units.muohio.edu/speechhearingclinic/

The Department of Speech pathology and Audiology operates this clinic. Speech, language, voice and hearing assessment and therapy services are offered. There is a fee. The clinic complies with the Health Information and Patient Privacy Act (HIPPA) regulations regarding patient records.

Student Counseling Service

195 Health Services Center 529-4634
www.units.muohio.edu/saf/scs/

A staff of licensed psychologists and doctoral level trainees working under those licenses provides individual and group counseling and psychotherapy for a wide range of mental health concerns. The approach to services is typically goal focused and brief therapy. Psychiatric services are also available. There are modest fees for services, though no student is denied service due to inability to pay.

Transportation

Parking and Transportation Services
Campus Avenue Building, Room 128, 513-529-8535

The Department of Parking and Transportation Services (*www.muohio.edu/parking*) offers several transportation programs to students:

- The Miami Metro provides daily bus service, including weekends and evenings, throughout campus and to off-campus areas in Oxford. The Miami Metro also provides shuttle service from Oxford to the MU-Hamilton campus. Call the Bus Information Hotline at 524-2877 for information.
- A medical transport service for students (Access Miami) with temporary and permanent disabilities is available daily when the Miami Metro is in operation. Nighttime Door-to-Door (NDD) provides service to and from campus during evening hours. Call 529-2277 for Access Miami and NDD service.
- Charter bus service to the Cleveland and Chicago areas during the fall midterm break, Thanksgiving break, winter recess, and spring break is available by calling the Parent's Office at 529-3436.
- Airport transportation to the Dayton, Northern Kentucky/Cincinnati, Columbus, and Indianapolis airports from the Shriver Center is available for Thanksgiving, winter, and spring breaks. For more information, call the Shriver Center Box Office at 529-3200.

Women's Center

206 MacMillan, 513-529-1510
www.muohio.edu/womenscenter

The Women's Center is a resource and advocacy center that serves the campus community by facilitating women's empowerment, and advocating for an inclusive campus climate and policies that advance gender equity and the contributions of diverse women. By providing a dedicated space, resources and multiple educational and activist opportunities, the Women's Center serves as a catalyst for engagement around gender issues and the intersection of gender with other aspects of women's lives. The Women's Center is open to all individuals. The Center's community room is available for quiet study, networking, organizational meetings, and relaxing. The Center also offers programs on a variety of issues of special interest to women and contains an extensive resource collection, with books available for checkout. Find out more about Women's Center programs and services by checking out their website or by contacting the Center to subscribe to WOMYNTLK, the Women's Center's weekly electronic posting of news and events.

For More Information

Except for the regional campuses, all addresses are:

Miami University
Oxford, OH 45056
Phone: 513-529-1809 (general information)
www.muohio.edu

Admission, Undergraduate: Office of Admission, Campus Avenue Building, 513-529-2531.

Admission, Graduate: Graduate School, 102 Roudebush, 513-529-4125.

Disability Services: Office of Disability Resources, 19 Campus Avenue Building, 513-529-1541.

Fees and Expenses: Office of the Bursar, 107 Campus Avenue Building, 513-529-8700.

Financial Aid, Loans, Grants, Scholarships: Office of Student Financial Assistance, 121 Campus Avenue Building, 513-529-8734.

Hamilton Campus: Miami University Hamilton, 1601 University Blvd., Hamilton, OH 45011, 513-785-3000 or 513-785-3211.

Honors Program: 96 Bishop Hall, 513-529-3399.

Intercollegiate Athletics: 230 Millett Hall, 513-529-3113.

International Students: Office of International Education, 216 MacMillan, 513-529-5628.

I.T. Services: Support Desk: 103 Robertson Hall, 513-529-7900

Liberal Education Office: 229 Culler Hall, 513-529-7135.

Middletown Campus: Miami University Middletown, 4200 E. University Blvd., Middletown, OH 45042, 513-727-3200 or *513-727-3308.

Minority Affairs: Office of Diversity Affairs, 336 and 377 Shriver Center, 513-529-6504.

Parking, Motor Vehicle, and Bicycle Regulations: Parking and Transportation Services, 128 Campus Avenue Building, 513-529-8535

Recreational Sports: Recreational Sports Center, 513-529-6868.

Registration: Office of the Registrar, 102 Campus Avenue Building, 513-529-8703.

Residence and Dining Halls: Housing Dining, and Guest Services, Cook Place, 513-529-3721; and, Housing and Meal Plan Services, 111 Shriver Center, 513-529-5000.

Residency: Office of the Registrar, 102 Campus Avenue Building, 513-529-8703.

Student Employment: Department of Human Resources, 15 Roudebush Hall, 513-529-8722.

Student Organizations: Student Activities Office, 356 Shriver Center, 513-529-2266.

Student Responsibility and Regulations: See *The Student Handbook*, published online each academic year and available at *www.muohio.edu/handbook*.

Veterans Affairs Office: Office of Student Financial Assistance, 121 Campus Avenue Building, 513-529-8734.

Women's Center: 205 MacMillan, 513-529-1510.

Majors and Degrees, Minors, Associate's Degree Programs, and Certificate Programs

The following charts list all majors and degrees, minors, and certificate programs offered by Miami University. Descriptions appear elsewhere in this Bulletin. **Note:** Returning former students whose degree programs have been discontinued should consult with their academic departments or divisions.

Undergraduate and Graduate Majors and Degrees

Major	Undergraduate Degree(s)	Graduate Degree(s)
Accountancy	Bachelor of Science in Business	Master of Accountancy
American Studies	Bachelor of Arts	—
Anthropology	Bachelor of Arts	—
Architecture	Bachelor of Arts in Architecture	Master of Architecture
Art	Bachelor of Fine Arts	Master of Fine Arts
Art Education	Bachelor of Science in Art	Master of Arts
Athletic Training	Bachelor of Science in Athletic Training	—
Biochemistry	Bachelor of Science	—
Bioengineering	Bachelor of Science in Engineering	—
Biological Sciences	—	Master of Arts in Teaching
Black World Studies	Bachelor of Arts	—
Botany	Bachelor of Arts, Bachelor of Science	Master of Arts, Master of Science, Doctor of Philosophy
Business Administration	—	Master of Business Administration
Business-Economics	Bachelor of Science in Business	—
Cell, Molecular and Structural Biology (CMSB)	—	Master of Science, Doctor of Philosophy
Chemical Engineering	Bachelor of Science in Engineering	—
Chemistry	Bachelor of Arts, Bachelor of Science	Master of Science, Doctor of Philosophy
Chinese Education	Bachelor of Science in Education	—
Classical Humanities	Bachelor of Arts	—
Classical Languages	Bachelor of Arts	—
Clinical Laboratory Science	Bachelor of Science	—
Computational Science and Engineering	—	Master of Science in Computational Science and Engineering
Computer Engineering	Bachelor of Science in Engineering	—
Computer Science	Bachelor of Science in Computer Science	Master of Computer Science
Curriculum and Teacher Leadership	—	Master of Education
Dietetics	Bachelor of Science in Kinesiology & Health	—
Diplomacy and Global Politics	Bachelor of Arts	—
Early Childhood Education	Bachelor of Science in Education	—
Earth Science	Bachelor of Arts	—
Earth Science Education	Bachelor of Science in Education	—
Earth Science/Chemistry Education	Bachelor of Science in Education	—
Earth Science/Life Science Education	Bachelor of Science in Education	—
Earth Science/Physics Education	Bachelor of Science in Education	—
East Asian Language and Culture	Bachelor of Arts	—
Ecology, Evolution and Environmental Biology (EEEB)	—	Doctor of Philosophy
Economics	Bachelor of Arts	Master of Arts
Educational Administration	—	Doctor of Education, Doctor of Philosophy
Educational Leadership	—	Master of Education, Master of Science
Educational Psychology	—	Master of Education
Electrical Engineering	Bachelor of Science in Engineering	—
Elementary Education	—	Master of Education
Elementary Mathematics Education	—	Master of Education
Engineering (General Engineering)	Bachelor of Science in Engineering	—
Engineering Management	Bachelor of Science in Engineering	—
Engineering Physics (pre-professional)	Bachelor of Science	—
Engineering Technology	Bachelor of Science in Applied Science	—

Major	Undergraduate Degree(s)	Graduate Degree(s)
English, Composition and Rhetoric	—	Master of Arts, Doctor of Philosophy
English/Creative Writing	Bachelor of Arts	Master of Arts
English/Literature	Bachelor of Arts	Master of Arts, Master of Arts in Teaching, Doctor of Philosophy
English/Technical and Scientific Communication	Bachelor of Arts	Master of Technical and Scientific Communication
Environmental Earth Science	Bachelor of Arts	—
Environmental Science	Bachelor of Philosophy	Master of Environmental Science
Environmental Studies	Bachelor of Philosophy	—
Exercise and Health Studies	—	Master of Science in Exercise & Health Studies
Exercise Science	Bachelor of Science in Kinesiology & Health	—
Family and Child Studies	—	Master of Science
Family Studies	Bachelor of Science in Family Studies	—
Finance	Bachelor of Science in Business	Master of Business Administration
French	Bachelor of Arts	Master of Arts
French Education	Bachelor of Science in Education	—
Geography	Bachelor of Arts	Master of Arts
Geology	Bachelor of Arts, Bachelor of Science	Master of Arts, Master of Science, Doctor of Philosophy
German	Bachelor of Arts	—
German Education	Bachelor of Science in Education	—
Gerontology	Bachelor of Arts	Master of Gerontological Studies, Doctor of Philosophy
Graphic Design	Bachelor of Fine Arts	—
Health Studies	Bachelor of Science in Kinesiology & Health	—
History	Bachelor of Arts	Master of Arts, Doctor of Philosophy
History of Art and Architecture	Bachelor of Arts in the History of Art and Architecture	—
Instructional Design	—	Master of Arts, Master of Education
Integrated Language Arts Education	Bachelor of Science in Education	—
Integrated Mathematics Education	Bachelor of Science in Education	—
Integrated Social Studies Education	Bachelor of Science in Education	—
Interdisciplinary Business Management	Bachelor of Science in Business	—
Interdisciplinary Studies	Bachelor of Philosophy	—
Interior Design	Bachelor of Fine Arts	—
International Studies	Bachelor of Arts in International Studies	—
Italian Studies	Bachelor of Arts	—
Journalism	Bachelor of Arts	—
Latin American Latino/a and Caribbean Studies	Bachelor of Arts	—
Latin Education	Bachelor of Science in Education	—
Life Science Education	Bachelor of Science in Education	—
Life Science/Physics Education	Bachelor of Science in Education	—
Linguistics	Bachelor of Arts	—
Management & Leadership	Bachelor of Science in Business	—
Management Information Systems	Bachelor of Science in Business	Master of Business Administration
Manufacturing Engineering	Bachelor of Science in Engineering	—
Marketing	Bachelor of Science in Business	Master of Business Administration
Mass Communication	Bachelor of Arts	Master of Arts
Mathematics	Bachelor of Science	Master of Arts, Master of Arts in Teaching, Master of Science
Mathematics and Statistics	Bachelor of Arts, Bachelor of Science	—
Mechanical Engineering	Bachelor of Science in Engineering	—
Microbiology	Bachelor of Arts	Master of Science, Doctor of Philosophy
Middle Childhood Education	Bachelor of Science in Education	—
Music	Bachelor of Arts in Music	—
Music Education	Bachelor of Music	Master of Music
Music Performance	Bachelor of Music	Master of Music
Nursing	Bachelor of Science in Nursing	—
Paper Science and Engineering	Bachelor of Science in Paper Science and Engineering	Master of Science
Philosophy	Bachelor of Arts	Master of Arts
Physical Science Education	Bachelor of Science in Education	—
Physics	Bachelor of Arts, Bachelor of Science	Master of Science
Political Science	Bachelor of Arts	Master of Arts, Master of Arts in Teaching, Doctor of Philosophy
Psychology	Bachelor of Arts	Doctor of Philosophy (Master of Arts required)

Major	Undergraduate Degree(s)	Graduate Degree(s)
Public Administration	Bachelor of Arts	—
Quality and Process Improvement	—	Master of Business Administration
Quantitative Economics	Bachelor of Science	—
Reading Education	—	Master of Education
Religion	Bachelor of Arts	Master of Arts
Russian	Bachelor of Arts	—
Russian Eurasian Studies	Bachelor of Arts	—
School Psychology	—	Master of Science, Specialist in Education
Secondary Education	—	Master of Education
Social Gerontology	—	Doctor of Philosophy
Social Work	Bachelor of Science in Social Work	—
Sociology	Bachelor of Arts	—
Software Engineering	Bachelor of Science in Software Engineering	—
Spanish	Bachelor of Arts	Master of Arts
Spanish Education	Bachelor of Science in Education	—
Special Education	Bachelor of Science in Education	Master of Arts, Master of Education
Speech Communication	Bachelor of Arts	Master of Arts
Speech Pathology and Audiology	Bachelor of Science	Master of Arts, Master of Science
Sport Studies	Bachelor of Science in Kinesiology & Health	Master of Science in Sport Studies
Statistics	Bachelor of Science	Master of Science in Statistics
Strategic Communication	Bachelor of Arts	—
Supply Chain and Operations Management	Bachelor of Science in Business	—
Student Affairs in Higher Education	—	Master of Science, Doctor of Philosophy
Theatre	Bachelor of Arts in Theatre	Master of Arts
Urban and Regional Planning	Bachelor of Arts	—
Women's Studies	Bachelor of Arts	—
Zoology	Bachelor of Arts, Bachelor of Science	Master of Arts, Master of Science, Doctor of Philosophy

Minors

Information about these programs is available in the academic division chapters.

Minor	Academic Division
Actuarial Science	Arts and Science
Aerospace Studies	Arts and Science
Aging and Health	Arts and Science
Aging and Policy	Arts and Science
American Literature	Arts and Science
American Studies	Arts and Science
Anthropology	Arts and Science
Applied Sociological Research	Arts and Science
Art and Architectural History	Fine Arts
Arts Management	Business; Fine Arts
Black World Studies	Arts and Science
Botany	Arts and Science
Business Analytics	Business
Business Legal Studies	Business
Chemical Engineering	Engineering and Applied Science
Child Studies	Education, Health, and Society
Chinese	Arts and Science
Classical Humanities	Arts and Science
Classical Languages	Arts and Science
Coaching	Education, Health, and Society
Communication	Arts and Science
Computational Science and Engineering	Engineering and Applied Science
Computer Engineering	Engineering and Applied Science
Computer Science	Engineering and Applied Science
Criminology	Arts and Science
Decision Sciences in Business	Business
Digital Game Studies	Arts and Science
Disability Studies	Arts and Science
East Asian Studies	Arts and Science
Economics	Arts and Science, Business
Electrical Engineering	Engineering and Applied Science
English Literature	Arts and Science
Entrepreneurship	Business
Ethics	Arts and Science
European Area Studies	Arts and Science
Family Relationships	Education, Health, and Society
Film Studies	Arts and Science
Finance	Business
French	Arts and Science
General Business	Business
Geography	Arts and Science
Geology	Arts and Science
German	Arts and Science
Gerontology	Arts and Science
Global Perspectives on Sustainability	Arts and Science
History	Arts and Science
History of Philosophy	Arts and Science
Horticultural Botany	Arts and Science
Interactive Media Studies	Arts and Science
International Business (business majors only)	Business
Italian	Arts and Science
Japanese	Arts and Science
Jewish Studies	Arts and Science
Landscape Architecture	Fine Arts
Latin American Studies	Arts and Science
Linguistics	Arts and Science
Lusophone Studies	Arts and Science
Management	Business
Management Information Systems	Business
Management of Information Technologies	Business
Management and Organizations	Business
Manufacturing Engineering	Engineering and Applied Science
Marketing	Business
Mathematics	Arts and Science
Mechanical Engineering	Engineering and Applied Science

Minor	Academic Division
Medieval Studies	Arts and Science
Middle East and Islamic Studies	Arts and Science
Molecular Biology	Arts and Science
Music Composition	Fine Arts
Music History	Fine Arts
Music Performance	Fine Arts
Naval Science	Arts and Science
Neuroscience	Arts and Science
Nutrition	Education, Health, and Society
Operations Management	Business
Operations Research Methods	Arts and Science
Paper Engineering	Engineering and Applied Science
Physics	Arts and Science
Plant Biotechnology	Arts and Science
Political Science	Arts and Science
Religion	Arts and Science
Risk Management and Insurance	Business
Russian	Arts and Science
Russian, East European, and Eurasian studies	Arts and Science
Sociology	Arts and Science
Spanish	Arts and Science
Special Education	Education, Health, and Society
Statistical Methods	Arts and Science
Statistics	Arts and Science
Supply Chain Management	Business
Theatre Arts	Fine Arts
Theatre and Drama	Fine Arts
Urban and Regional Analysis	Arts and Science
Urban Design	Fine Arts
Women's Studies	Arts and Science
Writing-Rhetoric	Arts and Science

Associate's Degree Programs

Except for the Associate in Arts, these programs are available only on the regional campuses in Hamilton and Middletown.

Program	Associate's Degree
Accounting Technology	Associate of Applied Business
Business Management Technology (Real Estate Mgmt. Technology Option)	Associate of Applied Business
Chemical Technology (Middletown campus only)	Associate in Applied Science
Computer and Information Technology	Associate in Applied Science
Computer Technology (continuation option for CSE)	Associate in Applied Science
Criminal Justice (Hamilton campus only)	Associate in Applied Science
Electrical and Computer Engineering Technology	Associate in Applied Science
General Studies (also on Oxford campus)	Associate in Arts
Marketing Management Technology	Associate of Applied Business
Mechanical Engineering Technology	Associate in Applied Science
Office Management Technology	Associate of Applied Business
Prekindergarten Education	Associate in Applied Science
Technical Study	Associate of Technical Study

Undergraduate Certificate Programs

These programs are available only on the regional campuses in Hamilton and Middletown:

Program	Academic Division
Accounting	Business
Business Information Software	Business
Computer-Aided Drafting/Computer-Aided Manufacturing	Engineering and Applied Science
Computer Hardware Technology	Engineering and Applied Science
General Supervision	Business
Small Business Management	Business
Small Office Management	Business

Programs available on all campuses:

Program	Academic Division
China Business	Business
Geographic Information Science	Arts and Science

Graduate Certificate Programs

Program	Academic Area
College Teaching	Departments of Graduate School and CELTUA
Ecology	Departments of Botany, Geography, Geology, Microbiology and Zoology
Gerontology	Departments of Sociology and Gerontology; Scripps Gerontology Center
Molecular biology	Department of Botany, Chemistry, Biochemistry, Microbiology and Zoology
Professional Development: Assessment and Evaluation	Departments of Educational Psychology
Women's studies	Women’s Studies Program

Admission for Undergraduate Students

Office of Admission
Campus Avenue Building
TTY accessible: 513-529-2531
www.muohio.edu/admission/

About Admission

Miami's official admission policy is in *The Student Handbook*, available online at *www.muohio.edu/handbook*.

The State of Ohio limits the number of students who can enroll at the Oxford campus, which means Miami must be selective in admissions, accepting only a portion of those who apply.

You may apply for admission online, download and print an application, or request undergraduate application materials from:

Office of Admission
301 S. Campus Ave.
Miami University
Oxford, Ohio 45056-3434
Phone: 513-529-2531 (TTY accessible)
www.muohio.edu/admission/

Admission information for international students and for Hamilton and Middletown campuses appears later in this chapter.

Freshman Admission Standards

Freshman admission to the Oxford campus is based upon high school performance (curriculum, grade point average, and class rank), test scores (ACT and/or SAT Reasoning Test), essay, high school experience and community activities, and recommendation of your high school. Personal interviews are not used.

Students who have not graduated from a state-chartered high school or have not earned a General Educational Development (GED) certificate must submit descriptions of their curriculum and educational resources used during the last four years. If sufficient information to assess academic achievement and ability is not provided, samples of work in such areas as English, mathematics, natural science, social studies, foreign language, and fine arts may be requested.

Special abilities, talents, and achievements, as well as diversity of the student body, are also considered in making admission decisions. The university believes that diversity enhances the quality of education its students receive. Diversity may include socioeconomic factors, under-enrolled minority group members, career interests, artistic abilities, geographical backgrounds, and other special characteristics.

For information, about open admission for freshmen to Hamilton and Middletown campuses, see that section in this chapter and the Hamilton and Middletown Campuses section.

High School Preparation

To be admitted to Miami, you must have ordinarily earned a high school diploma from a state-chartered high school or have a General Educational Development (GED) certificate. Alternatively educated students without a GED certificate can be considered for admission by presenting credentials that demonstrate equivalent levels of academic achievement, ability, and performance. (Please contact the appropriate admission office for guidelines.)

All candidates are also expected to have completed:

- four units of college preparatory English
- three units of college preparatory mathematics (at least to the Algebra II level)
- three units of college preparatory natural science (including both a physical and a biological science)
- three units of college preparatory social studies (including one unit of history)
- two units of foreign language, both in the same language
- one unit of fine arts, including art, drama, dance, or music, either appreciation or performance

Making Up Requirements

If you have otherwise qualified for admission, but not fulfilled these unit prerequisites, you must complete them before you graduate with a baccalaureate degree from Miami. These regular courses will count toward graduation, and many of them can fulfill other university requirements. Normally, students complete these prerequisites within their first 64 credit hours of college work.

The following courses will fulfill the requirements:

English: Complete the English composition requirement of the Miami Plan; no additional courses are required.

Natural Science, Social Studies: Complete natural science and social science requirements of the Miami Plan; no additional courses are required.

Mathematics: Complete MTH 102 Intermediate Algebra, MTH 104 Precalculus with Algebra, MTH 123 Precalculus, or another math course of at least three credit hours at the level of MTH 123 or higher. Consult with the chief departmental adviser for mathematics.

Fine Arts: Complete the fine arts requirement of the Miami Plan; no additional courses are required.

Foreign Language: Take one year of foreign language selected from the following beginning level sequences (or higher level courses):

Arabic 101 and 102
Chinese 101 and 102
French 101 and 102
German 101 and 102
German 111 and 201
Greek 101 and 102
Hebrew 101 and 102
Hindi 101 and 102
Italian 101 and 102
Japanese 101 and 102
Korean 101 and 102
Latin 101 and 102
Portuguese 111
Russian 101 and 102
Spanish 101 and 102

Exceptions

These prerequisites are not required in order to earn a two-year degree. Students who continue their studies to earn a baccalaureate degree, however, are required to fulfill these standards.

Students graduating from high school prior to 1986 must have completed 17 units of study; at least 10 of those units must include any combination of English, speech, mathematics, science, history, social studies, and foreign language.

Students who qualify for admission by earning the General Educational Development (GED) certificate must submit a transcript of completed high school course work to evaluate fulfillment of these standards. Credentials of alternatively educated students will be evaluated to determine fulfillment of these standards.

ACT or SAT Reasoning Test Scores

Miami requires official scores on the ACT or the SAT Reasoning Test. Exceptions to this are if you have been out of high school five or more years or have already completed 30 transfer credits.

You can take either test. These tests must be taken at an authorized testing center on one of the national or approved state testing dates. Test scores must be sent by the testing agency.

You can register online or obtain forms at your high school; you must register several weeks before the test date.

Housing Requirement

First- and second-year students admitted to the Oxford campus (except those who reside with their parents, legal guardians, or spouses; are at least 21 years of age; or are married) must live in university residence halls. For information, about the housing requirement for transfer students, see "Transfer Student Admission."

See more about residence halls in the General Information section.

Medical and Insurance Requirements

You are required to complete medical forms for the Student Health Service. Students under age 30 must present proof of immunity for measles (rubeola). Within the first three months of entering Miami, some international students will be notified of the requirement of a tuberculin skin test. Failure to meet immunization requirements will prevent course registration.

You must have health and accident insurance. If you are not covered by another policy, you must buy the university-sponsored coverage. The insurance rate is in the Fees and Expenses chapter.

Commuters

Freshmen who live within commuting distance and live in the home of their parents, legal guardians, or spouses may apply to the Oxford campus. See Freshmen Admission Standards for information regarding admission.

The Hamilton and Middletown campuses are commuter campuses and have an open enrollment policy for freshmen. Local area residents who are not accepted to the Oxford campus can begin their Miami studies by commuting to the Hamilton or Middletown campus. After completing 20 semester hours in good academic standing at a regional campus, they can continue at the Oxford campus.

International Student Admission

Basic requirements for admission of international students to undergraduate study include:

- Completion of formal secondary education in a pre-university curriculum that culminates in the award of a secondary school diploma or certificate which is generally recognized as the educational qualification necessary to gain admission to higher studies in your own country.
- Adequate financial support
- English language ability sufficient for you to undertake a full course of study. See the following section, "English Proficiency."
- Scores on the SAT Reasoning Test or CEEB achievement tests are required only for admission of international who are attending U.S. secondary schools or secondary schools in another country that follow a U.S. high school curriculum, and those who intend to participate in the intercollegiate athletic program and need to comply with NCAA eligibility requirements.

English Proficiency

International applicants (non-immigrants with F-1 or J-1 or other visa status) whose native language is not English are required to submit evidence of English proficiency prior to their admission. In most cases, applicants will need to present satisfactory scores on the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). Information concerning these examinations and location of test centers can be obtained at *www.toefl.org* or *www.ielts.org*.

Undergraduate international students, like all Miami undergraduates, must satisfy the freshman English requirement. If you are accepted, you will take a Department of English placement examination before you register for classes. Students will be placed in the appropriate English courses based on test scores or other English proof of proficiency received at the time of admission.

ENG 108 is a pre-freshman level course designed to provide international students with basic competence in written and oral English. ENG 108 is followed by 109, similar to ENG 111 except ENG 109 concentrates on special needs of non-native speakers.

All students who begin in ENG 108 or 109 take ENG 112, which completes the freshman English requirement. This can be completed in two semesters or three, depending on whether you were first placed in ENG 108 or 109.

Non-native English speakers can get additional practice in the use of written and spoken English at the Bernard B. Rinella Jr. Learning Center, 23 Campus Avenue Building.

Information and Application

Information and application forms for prospective international undergraduate students are available online (*www.muohio.edu/admission/apply/international*) and from:

Office of Admission
301 S. Campus Ave.
Miami University
Oxford, Ohio 45056-3434
U.S.A.
Phone: 513-529-2288
Fax: 513-529-1550
E-mail: internationaladmission@muohio.edu

Transfer Student Admission

If you attended another college after high school and registered for one or more courses, you must apply for admission

to Miami as a transfer student. Credit earned at another college is subject to transfer regulations.

Information on transfer admission and services is in the *Transfer Viewbook*, available from the Office of Admission.

Admission Requirements

You are required to have earned a high school diploma and have a minimum of 2.00 g.p.a. on your college courses to be eligible for transfer admission. Transfer students are responsible for meeting all requirements that are in effect when they first enroll as degree candidates.

Admission Prerequisites

If you graduated from high school after 1985, you are required to complete admission prerequisites to earn a baccalaureate degree. These are listed under "High School Preparation" in this chapter. If you did not complete these specific curriculum standards in high school or at the college(s) you attended, you must fulfill them in the same manner described for beginning freshmen.

Transfer and Articulation Policy

The Ohio Board of Regents developed a statewide policy to facilitate the movement of students and transfer of credits throughout Ohio's state-assisted higher education system.

The Transfer Module is a set of core courses that all Ohio public colleges and universities have agreed will count for credit at any Ohio school. It contains 54-60 quarter hours or 36-40 semester hours of specified courses in English composition, mathematics, fine arts, humanities, social science, behavioral science, natural science, physical science, and interdisciplinary course work.

If you have successfully completed the Transfer Module at an Ohio college or university, you will be considered to have fulfilled the Transfer Module at Miami. Additional Miami Plan requirements that are not included in the Transfer Module, however, may be required.

The policy encourages preferential consideration for admission to students who complete the Transfer Module and either the Associate of Arts or the Associate of Science degree (60 semester hours) with an overall 2.00 g.p.a. Students should understand, however, that admission to a given institution does not guarantee admission to all majors, minors, or fields of concentration. Once admitted, transfer students will be subject to the same regulations governing applicability of catalog requirements as all other students. Furthermore, transfer students will be accorded the same class standing and other privileges as all other students on the basis of credits earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.

In order to facilitate maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their adviser and the college or university to which they plan to transfer. Students can appeal through the academic department and a university committee on the applicability of transfer credit. A statewide appeals committee considers appeals not satisfied at the university level.

Transfer Module (TM) for Miami University

Important: Please refer to the Courses of Instruction section for a full course description and other details.

English
Six (6) hours of English composition:
ENG 111 College Composition (3) (MPF) and
ENG 112 Composition and Literature (3) (MPF) **or**
ENG 113 Advanced College Composition (3) (MPF)

Mathematics and Statistics
Select any three (3) hours from:
MTH 151 Calculus I (3) (MPF, MPT)
MTH 153 Calculus I (3) (MPF, MPT) *
MTH 249 Calculus II (3) (MPF)
STA 261 Statistics (4) (MPF, MPT)

Arts/Humanities
Select at least three (3) hours from:
ARC 188 Ideas in Western Architecture (3) (MPF)
ARC 221 History and Philosophy of Environmental Design (3) (MPF)
ARC 222 History and Philosophy of Environmental Design (3) (MPF)
ART 181 Concepts in Art (3) (MPF)
ART 185 India and Southeast Asia (3) (MPF)
ART 186 China, Korea, and Japan (3) (MPF, MPT)
ART 187 History of Western Art: Prehistoric - Gothic (3) (MPF)
ART 188 History of Western Art: Renaissance - Modern (3) (MPF)
ART 189 History of Western Dress (3) (MPF, MPT)
ART 256 Perception and Audience (3)
ART 282 Art and Politics (3) (MPF, MPT)
MUS 135 Understanding Jazz, Its History and Context (3) (MPF, MPT)
MUS 185 The Diverse Worlds of Music (3) (MPF)
MUS 189 Great Ideas in Western Music (3) (MPF)
THE 101 Introduction to Theatre: Drama and Analysis (3) (MPF, MPT)
THE 191 Theatre Appreciation (3) (MPF, MPT) *and*

Select six (6) hours from any of the following two areas:
EDL 204 Sociocultural Studies in Education (3) (MPF, MPT)
FST 201 Introduction to Film Criticism and History (3) (MPF, MPT)

History
AMS 205 Introduction to American Studies (3) (MPF)
HST 111 Survey of American History (3) (MPF)
HST 112 Survey of American History (3) (MPF)
HST 121 Western Civilization (3) (MPF)
HST 122 Western Civilization (3) (MPF)
HST 224 Africa in History (3) (MPF) **or**
BWS 224 Africa in History (3) (MPF)

Literature
CHI 255 Drama in China and Japan in Translation (3) (MPF) **or**
JPN 255 Drama in China and Japan in Translation (3) (MPF)
CLS 121 Introduction to Classical Mythology (3) (MPF, MPT)
ENG 121 Comedy or Tragedy (3) (MPF)
ENG 122 Popular Literature (3) (MPF)
ENG 123 Introduction to Poetry (3) (MPF)
ENG 124 Introduction to Fiction (3) (MPF)
ENG 125 Introduction to Drama (3) (MPF)
ENG 131 Life and Thought in English Literature (3) (MPF, MPT)
ENG 132 Life and Thought in English Literature (3) (MPF, MPT)
ENG 133 Life and Thought in English Literature (3) (MPF, MPT)
ENG 134 Introduction to Shakespeare (3) MPF)
ENG 141 Life and Thought in American Literature (3) (MPF)
ENG 142 Life and Thought in American Literature (3) (MPF)
ENG 143 Life and Thought in American Literature (3) (MPF)
ENG 144 Major American Authors (3) (MPF)
ENG 161 Literature and Politics (3) (MPF)
ENG 162 Literature and Identity (3) (MPF)
ENG 163 Literature and Travel (3) (MPF)
ENG 164 Literature and Technology (3) (MPF)
ENG 165 Literature and Sexuality (3) (MPF)
FRE 131 Masterpieces of French Culture in Translation (3) (MPF)
GER 231 Folk and Literary Fairy Tales (3) (MPF, MPT)
GER 251 German Literature in Translation: Changing Concepts of the Self (3) (MPF, MPT)
RUS 137 Russian Folklore (3) (MPF, MPT)
RUS 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3) (MPF, MPT) **or**
ENG 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3) (MPF, MPT)

Philosophy
PHL 101 Knowledge of World, God, and Morality (3) (MPF, MPT)
PHL 103 Society and the Individual (3) (MPF)
PHL 104 Purpose or Chance in the Universe (3) (MPF, MPT)
PHL 105 Theories of Human Nature (3) (MPF, MPT)
PHL 131 Problems of Moral and Social Values (3) (MPF, MPT)

Religion (Comparative Religion)
REL 101 Varieties of Religious Expression (3) (MPF, MPT)
REL 102 Religion and Modern Culture (3) (MPF, MPT)

REL 103 Religion, History, and Society (3) (MPF, MPT)
REL 213 Judaism in the Modern World (3) (MPF, MPT)

Social Sciences
Take six (6) hours from two of the following areas:
ATH 155 Cultures in Context (4) (MPF)
BWS 151 Introduction to Black World Studies (4) (MPF, MPT)
COM 143 Introduction to Mass Communication (3) (MPF)
SPA 223 Theories of Language Development (3)
ECO 201 Principles of Microeconomics (3) (MPF, MPT)
ECO 202 Principles of Macroeconomics (3) (MPF, MPT)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF)
GEO 101 Global Forces, Local Diversity (3) (MPF, MPT)
GEO 111 World Regional Geography: Patterns and Issues (3) (MPF, MPT)
POL 101 American Political System (3) (MPF, MPT)
PSY 111 Introduction to Psychology (4) (MPF)
SOC 151 Social Relations (4) (MPF)
GTY 154 Aging in American Society (3) (MPF, MPT)
IDS 131 Law and Society (3) (MPF)
KNH 276 The Meaning of Leisure (3) (MPF)
WMS 201 Introduction to Women's Studies (3) (MPF, MPT)

World Cultures
Take three (3) hours from:
ART 279 Buddhism and Culture: China and Japan (4) (MPF) **or**
JPN 279 Buddhism and Culture: China and Japan (4) (MPF) **or**
REL 279 Buddhism and Culture: China and Japan (4) (MPF)
ATH 175 Peoples of the World (3) (MPF, MPT)
ATH 207 Civilization of the Middle East (3) (MPF) **or**
GEO 207 Civilization of the Middle East (3) (MPF) **or**
HST 207 Civilization of the Middle East (3) (MPF) **or**
REL 207 Civilization of the Middle East (3) (MPF)
ATH 208 The Rise of Industrialism in East Asia (3) (MPF) **or**
GEO 208 The Rise of Industrialism in East Asia (3) (MPF) **or**
HST 208 The Rise of Industrialism in East Asia (3) (MPF) **or**
ITS 208 The Rise of Industrialism in East Asia (3) (MPF) **or**
POL 208 The Rise of Industrialism in East Asia (3) (MPF) **or**
SOC 208 The Rise of Industrialism in East Asia (3) (MPF)
ATH 209 Civilization of Africa (3) (MPF) **or**
BWS 209 Civilization of Africa (3) (MPF) **or**
GEO 209 Civilization of Africa (3) (MPF) **or**
HST 209 Civilization of Africa (3) (MPF) **or**
REL 209 Civilization of Africa (3) (MPF)
CLS 101 Greek Civilization in its Mediterranean Context (3) (MPF, MPT)
GEO 111 World Regional Geography: Patterns and Issues (3) (MPF, MPT)
BWS 224 Africa in History (3) (MPF) **or**
HST 224 Africa in History (3) (MPF)
BWS 225 The Making of Modern Africa (3) (MPF) **or**
HST 225 The Making of Modern Africa (3) (MPF)
HST 297 World History to 1500 (3) (MPF)
HST 298 World History Since 1500 (3) (MPF)
IDS 159 Strength Through Cultural Diversity (3) (MPF)
ITS 201 Introduction to International Studies (3) (MPF, MPT)
LAS 207 Latin American Civilization (3) (MPF)
LAS 208 Latin American Civilization (3) (MPF, MPT)

Natural Sciences
Take six (6) hours. One course must include a laboratory.

Biological Science
Select at least three (3) hours
BOT 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF, LAB) **or**
MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF, LAB) **or**
ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF, LAB) **or**
BOT 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (3) (MPF, MPT, LAB) **or**
MBI 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (3) (MPF, MPT, LAB) **or**
ZOO 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (3) (MPF, MPT, LAB)
BOT 131 Plants, Humanity, and Environment (3) (MPF, MPT)
BOT 171 Ecology of North America (3) (MPF, MPT)
BOT 191 General Botany (4) (MPF, MPT, LAB)
MBI 111 Microorganisms and Human Disease (3) (MPF)
MBI 121 The Microbial World (3) (MPF)
MBI 123 Experimenting With Microbes (1) (MPF, LAB)
ZOO 113 Animal Diversity (4) (MPF, LAB)
ZOO 114 Principles of Biology (4) (MPF, MPT, LAB)
ZOO 121 Environmental Biology (3) (MPF, MPT)
ZOO 161 Human Physiology (4) (MPF, LAB)
ZOO 171 Human Anatomy and Physiology (4) (MPF, LAB)

Physical Science
Select at least three (3) hours
AER 118 Introduction to Atmospheric Science (3) (MPF) **or**
PHY 118 Introduction to Atmospheric Science (3) (MPF)
AER 204 Basic Aeronautics Laboratory (2) (MPF, LAB)
CHM 111 Chemistry in Modern Society (4) (MPF, LAB)
CHM 137 College Chemistry (3) (MPF) **or**
CHM 141 College Chemistry (3) (MPF)
CHM 144 College Chemistry Lab (2) (MPF, LAB)
CHM 153 General Chemistry Laboratory (2) (MPF, LAB)
EDT 181 Physical Science (4) (MPF, LAB)
EDT 182 Physical Science (4) (MPF, LAB)
GEO 121 Earth's Physical Environment (4) (MPF MPT, LAB)
GLG 111 The Dynamic Earth (3) (MPF, MPT)
GLG 115L Understanding the Earth (1) (MPF, LAB)
GLG 121 Environmental Geology (3) (MPF, MPT)
GLG 141 Geology of U.S. National Parks (3) (MPF, MPT)
PHY 101 Physics and Society (3) (MPF)
PHY 103 Concepts in Physics Laboratory (1) (MPF, LAB)
PHY 111 Astronomy and Space Physics (3) (MPF, MPT)
PHY 121 Energy and Environment (3) (MPF)
PHY 181 The Physical World (4) (MPF)
PHY 182 The Physical World (4) (MPT)
PHY 183 Physics Laboratory (1) (MPF, LAB)
PHY 184 Physics Laboratory (1) (MPT, LAB)

Limited Admission to Programs

Transfer admission to some programs is limited, requiring perhaps a higher g.p.a. and, in some cases, upper-class standing. These programs include:

- **College of Arts and Science**

  Journalism: Selective admission based on completion of COM 143 and JRN 101, completion of 18 hours of Miami Plan Foundation courses, the passing of a grammar and punctuation proficiency test, and pre-major g.p.a. Contact the journalism program director for details on applying for admission.

  Mass communication: Selective admission based on cumulative g.p.a., pre-major g.p.a., and qualifying exam after taking COM 134, COM 135, and COM 142 (or equivalent) and completing 30 semester hours.

  Speech communication: Selective admission based on cumulative g.p.a., pre-major g.p.a., and qualifying exam after taking COM 134, COM 135, and COM 142 (or equivalent) and completing 30 semester hours.

  Speech pathology and audiology: Selective admission based on cumulative g.p.a. (3.00) and pre-major courses g.p.a. (3.00). Student must complete SPE 127, SPE 216, SPE 222, and SPE 223 before applying to the major.

  Strategic communication: Selective admission based on cumulative g.p.a., pre-major g.p.a., and qualifying exam after taking COM 134, COM 135, and COM 142 (or equivalent) and completing 30 semester hours.

  Technical and scientific communication: Completion of ENG 313 (or 215 on the Hamilton campus) and approval by the program faculty of the student's application, which includes a writing portfolio. To apply, refer to the Program Booklet or go to *www.muohio.edu/batsc/* for more information and application form. Students may also consult with the Program Director.

- **Farmer School of Business:** 60 semester hours with 3.00 g.p.a. and the equivalent of ACC 221, ACC 222, DSC 205, ECO 201, ECO 202, MIS 235, and MTH 151. Depending on the demand for admission to the School of Business, higher standards may be adopted. See "Special Admission Requirements," in the School's chapter.

- **School of Education, Health and Society**

  Adolescent Young Adult and Foreign Language Education: 45 semester hours with a 2.50 g.p.a. at transfer institution and completion of courses equivalent to EDL 204, EDP 201, and EDT 190 and equal to 30 semester hours of specific equivalent content courses required in desired teaching area. Enrollment is on space-available basis. Science, mathematics, and foreign language majors are encouraged to apply. Contact the Department of Teacher Education for specific requirements.

  Early Childhood Education: Not available; however, a transfer student may apply for admission as a pre-major.

  Middle Childhood Education: 45 semester hours with 2.50 g.p.a. at transfer institution and completion of courses equivalent to EDL 204 and equal to four content courses specifically required in each of the two desired concentration areas. Enrollment is on

space-available basis. Contact the Department of Teacher Education for specific requirements.

Social work: Students declare a pre-major in social work and must apply and be accepted by the social work faculty. For further information on program requirements, contact the social work program office.

Special education: Completion of EDP 201, 220, and 256 or the equivalent from the transfer institution; 30 semester hours or 45 quarter hours with a minimum 2.50 g.p.a.; and 100 hours service work with persons with exceptionalities.

- **School of Engineering and Applied Science:** Contact the dean's office. If you have an associate's degree, special agreements may apply between the transfer institution and Miami.
- **School of Fine Arts:** Contact the department as soon as possible for specific requirements.

  Architecture: 3.00 g.p.a.; submission of a portfolio; fall semester admission only. Enrollment is on a space-available basis. Contact the department as soon as possible for specific requirements.

  Art: Completion of a minimum of six semester hours of studio art, enrollment in an additional six hours of studio art, completion of ART 190 and ART 201, and submission of a portfolio. Enrollment is on a space-available basis. Contact the department as soon as possible for specific requirements.

  Art education: Completion of a minimum of six semester hours of studio art and submission of a portfolio. Enrollment is on a space-available basis. Contact the art department as soon as possible for specific requirements.

  Interior design: 3.00 g.p.a.; submission of a portfolio; fall semester admission only. Enrollment is on a space-available basis.

  Music and music education: Audition required; enrollment is on a space-available basis.

Applying a Transfer Course to the Miami Plan

If you believe a course taken at another university or college satisfies the spirit of the Miami Plan for Liberal Education requirement, but does not correspond to a specific course, you may petition the Liberal Education Council to apply the course toward the Miami Plan. Obtain a petition from the Office of Liberal Education or its website (*www.units.muohio.edu/led*), your academic adviser, or the Transfer Credit Evaluation Office (in the Office of the Registrar), request the chair of the appropriate Miami department to evaluate your transfer course, and then present the petition to the Office of Liberal Education. A syllabus of the course must be attached to the petition.

Capstones are designed to culminate your baccalaureate study and are rarely taken off-campus or transferred from another institution. Students who plan to transfer any course to meet the Capstone requirement must obtain permission from the Office of Liberal Education before they take the course.

If the English composition requirement (Foundation I) was waived for you by another school, Miami's English department will evaluate your eligibility for a similar waiver. In most cases, students are asked to submit a portfolio of their writing. Contact the English department for detailed instructions on preparing your portfolio. The department will notify the Office of the Registrar and the Office of Liberal Education of its decision. No petition is required for this procedure.

Housing Requirement

If you are a freshman or sophomore transfer student who has registered for nine or more credit hours, you are required to live in university housing.

You are not *required* to live on campus if you will commute from your parents' or legal guardian's home; if you are married; or if you are at least 21 years of age before the first day of classes.

Credit Evaluations

Undergraduate evaluations are done by the Office of the Registrar.

Transfer credit is granted for grades of C or better from non-Ohio regionally accredited institutions. Upon a student's first matriculation to the university, transfer credit earned at Ohio institutions will be accepted for all passing grades for courses taken in fall 2005 or after. Credit received on a pass/fail or credit/no-credit basis may also be accepted if it can be verified that the equivalent letter grade earned was a "C" or better. Transfer credit is posted without grades on your Miami record and grades earned elsewhere are disregarded in the computation of your g.p.a.

If you attended an institution not fully accredited by a regional accrediting agency, you must validate your course work by earning 32 semester hours at Miami with a 2.00 cumulative g.p.a. and you must satisfy any divisional and departmental requirements.

Students who earn credit at institutions outside the United States must provide (in addition to their academic records) course descriptions or course syllabi that include a list of required reading for the course, number of class hours required in each course, and the length of the academic term(s) when enrolled. Provide course description or syllabi in the English language at least 1 month before the semester begins, if offered admission. Credit can be transferred only for studies completed at a recognized degree-granting institution. These credits are evaluated by the Office of the Registrar in consultation with the Office of Admission and Academic Divisions.

Students who intend to study abroad are expected to consult with the Office of International Programs in advance of their departure to make certain that the credits earned will transfer to Miami University.

Acceptance of extra-institutional or nontraditional credit, such as credit by examination, extension credit, correspondence credit, and armed forces credit, is limited to 32 semester hours. Only 20 of the 32 hours may be in correspondence work and in extension work from other institutions.

You can receive credit for courses sponsored by the Defense Activity for Non-Traditional Educational Support (DANTES) program that are college level and completed with satisfactory final examinations. Credit earned through non-collegiate sponsored instruction, evaluated by the American Council on Education (listed in *National Guide to Education Credit for Training Programs*), may be accepted only with approval of the appropriate academic department.

Whenever possible, transfer credits are assigned corresponding Miami course numbers. The appropriate Miami department determines where credit applies. Courses that do not fulfill the Miami Plan for Liberal Education, divisional requirements, or major requirements transfer as free electives.

Servicemembers Opportunity Colleges (SOC)

Miami University will be reviewing membership in SOC and at press time was in the process. Please contact the Office of the Registrar for more information.

Quarter-Semester Conversion

A quarter hour is two-thirds (0.6667) of a semester hour. To figure semester hours, multiply the quarter hours by 0.6667.

Graduation with Latin Honors

Students pursuing a bachelor's degree can graduate with distinction by achieving a cumulative g.p.a. of 3.50 *(cum laude),* 3.75 *(magna cum laude),* or 3.90 *(summa cum laude),* provided they earn at least 64 credit hours from Miami.

Students pursuing an associate's degree can graduate with distinction by achieving a cumulative g.p.a. of 3.50 *(cum laude)*, 3.75 *(magna cum laude)*, or 3.90 *(summa cum laude)*, provided they earn at least 32 credit hours from Miami.

For students who earn fewer than 64 credit hours from Miami toward a bachelor's degree or fewer than 32 credit hours from Miami toward an associate's degree, the cumulative g.p.a. to determine eligibility for distinction at graduation is the lower of the following averages: (1) average for all courses taken from Miami or (2) combined average using grades from all college-level courses.

Two-Year Colleges

Credits earned at two-year colleges transfer only as freshman and sophomore level credits. Those courses are considered equivalent when validated by the appropriate Miami department and/or division.

If you attended an institution not yet fully accredited by a regional accrediting agency, you must validate your previous course work by earning 32 semester hours at Miami with a 2.00 cumulative average.

Armed Forces Credit

Some training courses provided by the Armed Forces may be equivalent to college courses. Courses that are college level and are completed with satisfactory final examinations are transferable. To receive transfer credit, you must present certificates, or form DD295, or DD214 describing your training to the Registrar's office. If you were in the U.S. Army, you should request a transcript through the AARTS program. Also, see "Credit Evaluations" earlier in this chapter.

Recipients of VA education benefits should note that sprint courses are not considered full semester courses for VA entitlement (pay) purposes.

Nursing Credit

Graduates of diploma and non-NLNAC accredited associate's degree programs are required to complete 32 Miami hours and pass NSG 301, 311, and 313 before their 28 hours of transfer credit will be validated. Graduates of accredited associate's degree programs can transfer 28 semester hours of nursing from a regionally accredited two year college. Additional transfer hours may be used as elective credit. Licensed practical nurses (LPNs) wishing to pursue the LPN-to-RN program must contact their adviser for information on validating credit from their LPN program.

If you are a registered nurse with credits from a college nursing program, your credits are evaluated on the same basis as other transfer students' credits, described earlier.

See the School of Engineering and Applied Science chapter for information about degrees in nursing.

Second Semester and Summer Admission

Freshmen may be admitted for second (spring) semester or for summer session. Admission to some programs in the School of Fine Arts is available only in the first semester except by special permission.

Notification and Acceptance

Dates for notification of admission and your confirmation of acceptance are listed online (*www.muohio.edu/admission/*) and in your admission application packet.

As a member of the National Association of College Admission Counselors, Miami University supports the *Statement of Principles of Good Practice* and "permits candidates to choose, without penalty, among offers of admission and financial aid until May 1. Candidates admitted under an early decision program are recognized exceptions to this provision." (Section II, B, 3).

Summer Orientation

All first-year students and their families are invited to a one-and-a-half day orientation program. Held during June, the program provides an opportunity to learn more about the university and to register for classes.

Orientation program information is mailed to all incoming first-year students after they have confirmed their intention to enroll. Students register online for the program through their myMiami portal at http://mymiami.muohio.edu.

If you cannot attend a Summer Orientation session in June, you must attend August Orientation and participate in advising and registration at that time. If you have questions about Orientation, please call 513-529-9771 or email orientation@muohio.edu. Also, visit our website for complete dates and details about all Orientation programs (www.muohio.edu/orientation).

Hamilton and Middletown Campuses

The regional campuses in Hamilton and Middletown are commuter campuses and have an open admission policy for freshmen. To be admitted, you must have graduated from a state-chartered high school or have a General Educational Development (GED) certificate. Alternatively educated students without a GED certificate can demonstrate academic achievement by submitting a description of curriculum and educational resources used during the last four years and other information necessary to assess ability. ACT or SAT Reasoning Test scores must be within at least one standard deviation of the average national norm for the previous three years of test administration for alternatively educated students without GED certificates.

A beginning freshman or transfer student admitted to a regional campus is required to earn at least 20 semester hours and be in good academic standing at a regional campus before continuing at the Oxford campus. A transfer student enrolling at a regional campus who is also eligible for admission to the Oxford campus may be exempt from the 20-hour regional residency requirement. Please see your regional campus admission office for details of this exemption.

More information is in the chapter about the Hamilton and Middletown campuses and online. To receive an application packet for admission to Miami Hamilton or Miami Middletown, contact:

Office of
Admission and Financial Aid
Miami University Hamilton
1601 University Blvd.
Hamilton, Ohio 45011
Phone: 513-785-3111 (Admission),
513-785-3123 (Financial Aid),
513-785-3211
www.ham.muohio.edu

Office of
Admission and Financial Aid
Miami University Middletown
4200 E. University Blvd.
Middletown, Ohio 45042
Phone: 513-727-3216 (Admission)
866-426-4643,
513-727-3308
www.mid.muohio.edu

Non-degree Student Admission

High school enrollment students (post-secondary enrollment option): This state program provides opportunity for high school students (grades 9-12) to earn high school and college graduation credit through successful completion of college courses. Courses are open on a space-available basis. Questions regarding eligibility and admission should be directed to the appropriate admission office (Hamilton, Middletown, or Oxford). University housing is not available to students in this program. Prospective students should consult with their high school guidance counselors.

Senior citizens: Individuals who are 60 years of age or older and have resided in the state of Ohio for at least one year can audit any course without charge if permission is granted by the instructor and facilities are available. Any special course requirements or fees are the responsibility of the student. Formal admission and registration are not required.

Transient students: Students who attend another college or university, have been in attendance at the school during the past 12 months, are in good academic standing, and have permission from their schools to attend Miami for one semester may enroll at Miami. Students may not attend for two consecutive semesters as transient students.

Unclassified students: Students who have bachelor's degrees from other colleges or universities and do not want to get an additional degree from Miami may apply as unclassified students. Admission is granted as facilities are available.

Liberal Education at Miami

Office of Liberal Education
229 Culler Hall
Phone: 513-529-7135
www.muohio.edu/led/

The Global Miami Plan for Liberal Education

Liberal education complements specialized studies in your major and provides a broadened context for exploring social, academic, political and professional choices. Most students beginning in Fall 2010, regardless of major, are required to participate in the Global Miami Plan for Liberal Education. Liberal education course work and co-curricular programming emphasize four basic goals:

- **Thinking Critically**. Students learn how to develop critical thinking skills that enable them to carefully identify problems worth studying; to examine pros and cons about issues; to develop skills for examining evidence and counter-arguments; to analyze research and other information; to explore underlying assumptions about multiple positions and arguments; and to draw solid conclusions after examining all sides of an issue or problem.
- **Understanding Contexts**. Students learn how to understand contexts that inform how we make meaning out of issues and events. They may explore political, social, economic, historical, or other contexts that surround problems or issues confronted. They learn that contextual analysis and understanding opens up new ways of knowing not only about the world in which one lives, but also about oneself.
- **Engaging with Other Learners**. The Global Miami Plan is based on the firm belief that we learn from one another, from people different than ourselves, and from a wide variety of others. A healthy exchange of different ideas and viewpoints encourages rethinking of accepted perspectives. Thus, students learn to think critically and to understand contexts through in- and out-of-class activities designed to engage them with other learners: other students, other faculty or staff, and other learners outside of the university. Students learn how to work effectively in group settings, how to listen actively to the ideas of others, and how to negotiate a shared understanding of complex issues and tasks.
- **Reflecting and Acting**. Finally, the Global Miami Plan encourages students to both reflect upon and act on the new knowledge, understanding, and commitments made. Students learn how to make decisions about complex intellectual, ethical and personal issues; to think about the meaning of coursework for themselves, and to commit to informed action as global citizens.

Requirements of the Global Miami Plan

All students must complete liberal education requirements as well as courses in the major. The Global Miami Plan has three parts: Foundation Courses, a Thematic Sequence, and a Capstone Course.

The **Foundation (MPF)** requirement is met by taking a minimum of 36 semester hours (33 hours with Study Abroad) of Foundation courses across five specific areas:

I. English Composition (6 hours)
II. Fine Arts, Humanities, Social Science (9 hours)
  A. Fine Arts (3 hours minimum)
  B. Humanities (3 hours minimum)
  C. Social Science (3 hours minimum)
III. Global Perspectives (6 to 9 hours)
  A. Study Abroad (6 hours fulfills requirement), or
  B. G-Courses (9 hours), or
  C. G-Cluster (9 hours)
IV. Natural Science (9 hours, must include one laboratory course)
  A. Biological Science (3 hours minimum)
  B. Physical Science (3 hours minimum)
V. Mathematics, Formal Reasoning, Technology (3 hours)

Additionally, to complete the Foundation area requirements, students must complete the following:

Cultures (Cul) requirement - All students must take at least one Foundation course that presents a cultural perspective. Students satisfy this requirement by taking an appropriately designated course in any foundation area. The same course may meet both a Foundation areas requirement and the cultural and/or historical perspective requirement.

Historical (H) requirement - All students must take at least one Foundation course that presents a historical perspective (H). Students satisfy this requirement by taking an appropriately designated course in any Foundation area. The same course may meet both a Foundation area requirement and the historical and/or the cultural perspective requirement.

The **Thematic Sequence (MPT)** requirement is met by completing three related courses (usually nine hours) in an approved Thematic Sequence outside the student's department of major.

The **Capstone Course (MPC)** requirement is met by completing three hours in an approved Capstone course during a student's senior year.

Extended Study and Service-Learning in Global Miami Plan Courses

Students may gain an extra credit hour in any Foundation course, Thematic Sequence course, or Capstone for academic work and/or service-learning activities directly connected to the content and objectives of these courses. Students are responsible for initiating the extra-hour proposals. Instructors will determine whether the proposed work represents an extra credit hour and if their teaching schedules and related professional activities will permit them to sponsor and monitor these projects. The maximum number of hours of extended study or service-learning that can be applied to graduation is four; students may propose and enroll in such courses no more than once each semester.

An instructor should write a memo of understanding-preferably with the student-outlining expectations that must be fulfilled either by the end of the current semester or the semester immediately succeeding for the extra hour to be awarded. The academic department approves this memo before the project begins. Two grades are assigned: one for the primary course and one for the extended study and/or service-learning project. Credit/no-credit may be used for extended study and/or service-learning projects in Foundation courses and Thematic Sequence courses; credit/no-credit cannot be used in required Capstones in the student's department of major.

Extended study and/or service-learning permits, which must be completed by students and endorsed by sponsoring instructors and department chairs, are available from the Office of Community Engagement and Service. For more information,

consult the Office of Liberal Education or the Office of Community Engagement and Service.

Course Descriptions and Abbreviations

Foundation courses are listed below according to the area they satisfy (English composition; fine arts, humanities; etc.). Some Foundation courses will appear in two or more Foundation areas. For example, ARC 188 is classified as a course in the fine arts as well as one in the humanities; it appears, then, in Foundation IIA (fine arts) and Foundation IIB (humanities). Students who take such courses may use them to fulfill **one** Foundation area requirement only.

I, II, III, IV, V: (Refers to Foundation courses outline.) Course fulfills a part of one of the five major Foundation area requirements (for example, I. English Composition).

A, B, or C: (Refers to Foundation courses outline.) Course fulfills a part of a sub-area of one of the Foundation requirements (for example: IIA. Fine Arts; IIB. Humanities; IIC. Social Science).

H: Fulfills the historical perspective requirement.

Cul: Fulfills the cultural perspective requirement.

LAB: (all uppercase letters): Fulfills the laboratory course requirement for the Global Miami Plan.

Note: Other abbreviations and terms are explained in the Registering for Courses and Courses of Instruction chapters.

Foundation Courses

Foundation I. English Composition (6 hours minimum)

ENG 109 English for International Students (4)
ENG 111 College Composition (3)
ENG 112 Composition and Literature (3)
ENG 113 Advanced College Composition (3)

Foundation II. Fine Arts, Humanities, Social Science (9 semester hours)

IIA. Fine Arts (3 hours minimum)

ARC 107 Global Design (3) IIIB, Cul
ARC 188 Ideas in Western Architecture (3) IIB, H
ARC 221,222 History and Philosophy of Environmental Design (3, 3) IIB, H
ART 107 Art in a Global Context (3) IIB, Cul, H
ART 181 Concepts in Art (3)
ART/AMS 183 Images of America (3) IIB, Cul
ART 185 India and Southeast Asia (3) IIB, Cul, H
ART 187 History of Western Art: Prehistoric-Gothic (3) IIB, H
ART 188 History of Western Art: Renaissance-Modern (3) IIB, H
ART 189 History of Western Dress (3) IIB, H
ART 233 Global Perspectives on Dress (3) Cul
ART 256 Design, Perception, and Audience (3)
ART/WMS 282 Art and Politics (3) IIB, H
ART 286 China, Korea, and Japan (3) IIB, Cul, H
MUS/AMS 135 Understanding Jazz: Its History and Context (3) Cul, H
MUS 185 Diverse Worlds of Music (3) IIB, IIIB, Cul, H
MUS 188 The Music of Russia (3)
MUS 189 Great Ideas in Western Music (3) H
MUS 287 Enter the Diva: Women in Music (3) IIB, Cul
THE 101 Introduction to Theatre: Drama and Analysis (3) *
THE 103 Introduction to Theatre: Production and Performance (1)*
THE 191 Theatre Appreciation (3) H

* must be taken concurrently Language and Culture I

IIB. Humanities (3 hours minimum)

AAA 201 Introduction to Asian/Asian American Studies (3) IIC, IIIB, Cul, H
AAA/REL 203 Religions of India (3) IIC, IIIB, Cul, H
AMS 205 Introduction to American Studies (3) Cul, H
AMS/ENG 247 Appalachian Literature (3) Cul
AMS/ENG 248 Asian American Literature (3) Cul
ARC 188 Ideas in Western Architecture (3) IIA, H
ARC 221, 222 History and Philosophy of Environmental Design (3, 3) IIA, H
ART 107 Art in a Global Context (3) IIA, Cul, H
ART/AMS 183 Images of America (3) IIA, Cul
ART 185 India and Southeast Asia (3) IIA, Cul, H
ART 187 History of Western Art: Prehistoric-Gothic (3) IIA, H
ART 188 History of Western Art: Renaissance-Modern (3) IIA, H
ART 189 History of Western Dress (3) IIA, H
ART/JPN 279 Buddhism and Culture: China and Japan (3) Cul, H
ART/WMS 282 Art and Politics (3) IIA, H
ART 286 China, Korea, and Japan (3) IIA, IIB, Cul, H
ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3) Cul, H
CHI 251 Chinese Literature to 1800 in English Translation (3) Cul
CHI 252 Modern Chinese Literature in English Translation (3) Cul
CHI/JPN 255 Drama in China and Japan in English Translation (3) Cul
CIT/CSE 262 Technology, Ethics, and Global Society (3) IIC
CLS 101 Greek Civilization in its Mediterranean Context (3) Cul, H
CLS 102 Roman Civilization (3) Cul, H
CLS 121 Introduction to Classical Mythology (3) H
COM 135 Public Expression and Critical Inquiry (3)
COM/FST/IDS 206 Diversity and Culture in American Film (3) Cul
COM/DST 247 Rhetoric of Disability Rights (3) Cul
COM/FST 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3) Cul
EDL 204 Sociocultural Studies in Education (3)
ENG 122 Popular Literature (3)
ENG 123 Introduction to Poetry (3)
ENG 124 Introduction to Fiction (3)
ENG 125 Introduction to Drama (3) H
ENG 131, 132, 133 Life and Thought in English Literature (3, 3, 3) H
ENG 134 Introduction to Shakespeare (3)
ENG 141, 142, 143 Life and Thought in American Literature (3, 3, 3) H
ENG 144 Major American Writers (3)
ENG 161 Literature and Politics (3)
ENG 162 Literature and Identity (3) Cul
ENG 163 Literature and Travel (3) H
ENG 165 Literature and Sexuality (3) H
ENG/DST 169 Disability Identity and the American Imagination (3) Cul
ENG/IMS 171 Humanities and Technology (3)
ENG 202 Varieties of American English: Dialect Diversity & Language Change (3) Cul
ENG/IMS 238 Narrative & Digital Technology (3)
ENG/AMS 246 Native American Literature (3) Cul
ENG 251, 252 Life and Thought in European Literature (3, 3) H
ENG/LAS 254 Latino/a Literature and the Americas (3) IIIB, Cul
ENG 271 Cultures and Literature of the American South (3) Cul, H
FRE 131 Masterpieces of French Literature in Translation (3) Cul, H
FRE 202 Critical Analysis of French Culture (3) IIIB, Cul
FRE/GER/RUS 212; HST 211 Secular Jewish Culture From the Enlightenment to Zionism (3) Cul, H
FRE/FST/GER 255 Visual Representations of the Holocaust (3) Cul, H
FST 201 Introduction to Film Criticism and History (3)
GEO 101 Global Forces, Local Diversity (3) IIC, IIIB, Cul
GER 151 The German-American Experience (3) Cul, H
GER 231 Folk Fairy Tales and Literary Fairy Tales (3) Cul, H
GER 251 German Literature in Translation: Changing Concepts of the Self (3) Cul, H
GER 252 The German-Jewish Experience (3) Cul, H
GER 321 Cultural Topics in German-Speaking Europe Since 1870 (3) Cul, H
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S.A. (3) Cul, H
HST 111, 112 Survey of American History (3, 3) Cul, H
HST 121, 122 Western Civilization (3, 3) Cul, H
HST 197 World History To 1500 (3) IIIB, Cul, H
HST 198 World History Since 1500 (3) IIIB, Cul, H
HST/BWS 224 Africa in History (3) Cul, H
HST/BWS 225 The Making of Modern Africa (3) Cul, H
HST 245 Making of Modern Europe, 1450-1750 (3) IIB, Cul, H
HST/LAS 260 Latin America in the United States (3) IIIB, Cul, H

HST 296 World History Since 1945 (3) Cul, H
ITL 221 Italy, Matrix of Civilization (3) Cul, H
ITL/AMS/FST 222 Italian American Culture (3) Cul
ITS 201 Introduction to International Studies (3) IIC, IIIB, Cul, H
JPN 231 Tales of the Supernatural in English Translation (3) Cul, H
JRN 101 Introduction to Journalism (3)
KNH/BWS 292 Dance, Culture, and Contexts (3)
MUS/AMS 135 Understanding Jazz, Its History and Context (3) Cul, H
MUS 185 Diverse Worlds of Music (3) IIA, IIIB, Cul, H
MUS 287 Enter the Diva: Women in Music (3) IIA, Cul
PHL 101 Knowledge of World, God, and Morality (3)
PHL 103 Society and the Individual (3)
PHL 104 Purpose or Chance in the Universe (3) H
PHL 105 Theories of Human Nature (3)
PHL 106 Thought and Culture of India (4) Cul, H
PHL 131 Problems of Moral and Social Values (3)
POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIIB, Cul
REL 101 American Religious Encounters (3)
REL 102 Religion and Modern Culture (3) H
REL 103 Themes in the History of Religion (3) H
REL/RUS 133 Imagining Russia (3) IIIB, Cul, H
REL 175 Introduction to the Critical Study of Biblical Literature (3) H
REL 186 Global Jewish Civilization (3) IIIB, Cul, H
REL 213 Religious and Social History of the Jewish People (3) H
RUS 137 Russian Folklore (3) IIB, Cul
RUS/ENG 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3)
SPN 315 Introduction to Hispanic Literature (3)
WMS 202 Introduction to GLBT Studies (3) Cul

IIC. Social Science (3 hours minimum)
AAA 201 Introduction to Asian/ Asian American Studies (3) IIB, IIIB, Cul, H
AAA/SOC 207 China and Globalization (3) IIIB, Cul
ATH 155 Introduction to Anthropology (4)
ATH 175 People of the World (3) Cul
ATH 185 Cultural Diversity in the U.S. (3) Cul
ATH/GEO/REL 207 Civilization of the Middle East (3) Cul, H
ATH/BWS/GEO/HST/REL 209 Civilization of Africa (3) IIC, IIIB, Cul, H
BWS 151 Introduction to Black World Studies (4) Cul, H
CIT/CSE 262 Technology, Ethics, and Global Society (3) IIB
COM 134 Introduction to Speech Communications (3)
COM 136 Introduction to Interpersonal Communication (3)
COM 143 Introduction to Mass Communication Theory and Issues (3)
ECO 131 Economic Perspectives on Inequality in America (3)
ECO 201 Principles of Microeconomics (3)*
ECO 202 Principles of Macroeconomics (3)*
EDP 101 Critical Issues in the Psychology of the Learner (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3)
ENG/COM 201 Language Awareness (3)
FSW 206 Social Welfare: Impact on Diverse Groups (3)
FSW 261 Diverse Family Systems Across the Life Cycle (3)
GEO 101 Global Forces, Local Diversity (3) IIB, IIIB, Cul
GEO 111 World Regional Geography: Patterns and Issues (3) Cul
GEO 201 Geography of Urban Diversity (3) Cul
GEO/HST/ITS/SOC 208 The Rise of Industrialism in East Asia (3) Cul, H
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S.A. (3) Cul, H
GTY 154 Aging in American Society (3)
ITS 201 Introduction to International Studies (3) IIB, IIIB, Cul, H
KNH 188 Exercise and Health (3)
KNH 206 AIDS: Etiology, Prevalence, and Prevention (3)
KNH 242 Personal Health (3)
KNH 276 The Meaning of Leisure (3) H
KNH/BWS 279 African Americans in Sport (3)
LAS 207 Latin America before 1910 (3) Cul, H
LAS 208/ATH 206 Introduction to Latin America (3) IIIB, Cul, H
MGT 111 Introduction to Business (3)
POL 101 Politics and National Issues (3)
POL 102 Politics and Global Issues (3)
POL 142 American Politics and Diversity (3) Cul
POL 159 U.S. Identity Politics (3) Cul
PSY 111 Introduction to Psychology (4)
PSY 210 Psychology Across Cultures (3) Cul
SOC 141 Multiculturalism in the U.S. (3) Cul
SOC 151 Social Relations (4)
SOC 152 Social Relations and U.S. Cultures (4) Cul
SPA 127 Introduction to Communication Disorders (3)
SPA 211 Deaf Culture and Community (3) Cul
SPA/DST 212 Deaf Culture: Global, National and Local Issues (3) Cul
SPA 223 Theories of Language Development (3)
WMS 201 Introduction to Women's Studies (3) Cul

* ECO 201 and 202 are a year course; the recommended sequence is 201, 202. This course sequence ordinarily should not be taken during the freshman year.

Foundation III. Global Perspectives (6-9 hours)

IIIA. Study Abroad (6 hours)
Six hours of Foundation credit from any Miami-approved Study Abroad program.

OR

IIIB. Global Courses (9 hours minimum)
G-Courses are specially designed to have a global perspective and help students develop the ability to communicate and act respectfully across linguistic and cultural differences.

AAA 201 Introduction to Asian/Asian American Studies (3) IIB, IIC, Cul, H
AAA/REL 203 Religions of India (3) IIB, Cul, H
AAA/SOC 207 China and Globalization (3) IIB, Cul
ARC 107 Global Design (3) IIA, Cul
ENG/LAS 254 Latino/a Literature and the Americas (3) IIB, Cul
FRE 131 Masterpieces of French Culture in Translation (3) IIB, Cul, H
FRE 202 Critical Analysis of French Culture (3) IIB, Cul
GEO 101 Global Forces, Local Diversity (3) IIB, IIC, Cul
HST 197 World History to 1500 (3) IIB, Cul, H
HST 198 World History Since 1500 (3) IIB, Cul, H
HST 245 Making of Modern Europe, 1450-1750 (3) IIB, Cul, H
HST/LAS 260 Latin America in the United States (3) IIB, H
ITS 201 Introduction to International Studies (3) IIC, Cul, H
LAS 208/ATH 206 Latin American Civilization (3) IIC, Cul, H
MUS 185 Diverse Worlds of Music (3) IIA, IIB, Cul, H
POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIB, Cul
REL/RUS 133 Imagining Russia (3) IIB, Cul, H
REL 186 Global Jewish Civilization (3) IIB, Cul, H

See the Office of Liberal Education website *http://www.units.muohio.edu/led* for updates on courses meeting this requirement.

OR

IIIC. Global Clusters (9 hours minimum)
G-Clusters are predesigned groups of courses focused on a particular global issue or theme. Thematic Sequences (see below), G-Clusters only fulfill Foundation requirements; they do not meet Thematic Sequence requirements.

See the Office of Liberal Education website *http://www.units.muohio.edu/led* for updates on courses meeting this requirement.

Foundation IV. Natural Science (9 hours, must include one laboratory course)

IVA. Biological Science (3 hours minimum)
BOT 101 Biotechnology: Coming of Age in the 21st Century (3)
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) LAB
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) LAB
BOT 121 Evolution: Just a theory? (3)
BOT 131 Plants, Humanity, and Environment (3)
BOT 155 Field Botany (3) LAB
BOT 171 Ecology of North America (3)
BOT 181 Medicinal and Therapeutic Plants (3)
BOT 191 Plant Biology (4) LAB
MBI 111 Microorganisms and Human Diseases (3)

MBI 121 The Microbial World (3)
MBI 123 Experimenting with Microbes (1) LAB
MBI 131 Community Health Perspectives (2)
MBI 143 Laboratory Diagnosis of Disease (1) LAB
MBI 161 Elementary Medical Microbiology (4) LAB
ZOO 113 Animal Diversity (4) LAB
ZOO 114 Principles of Biology (4) LAB
ZOO 121 Environmental Biology (3)
ZOO 161 Human Physiology (4) LAB
ZOO 171 Human Anatomy and Physiology (4) LAB

IVB. Physical Science (3 hours minimum)
AER 101 Introduction to Aeronautics (3)
AER/PHY 118 Introduction to Atmospheric Science (3)
CHM 111 Chemistry in Modern Society (4) LAB
CHM 131 Chemistry of Life Processes (4) LAB
CHM 137 College Chemistry (4)
CHM 141, 144 College Chemistry, College Chemistry Lab (3, 2) LAB
CHM 141M General Chemistry (3)
CHM 153 General Chemistry Laboratory (2) LAB
EDT 181, 182 Physical Science (4, 4) LAB
GEO 121 Earth's Physical Environment (4) LAB
GLG 111 The Dynamic Earth (3) H
GLG 115L Understanding the Earth (1) LAB
GLG 121 Environmental Geology (3)
GLG 141 Geology of U.S. National Parks (3)
PHY 101 Physics and Society (3)
PHY 103 Concepts in Physics Laboratory (1) LAB
PHY 111 Astronomy and Space Physics (3) H
PHY 121 Energy and Environment (3)
PHY 131 Physics for Music (3)
PHY 141 Physics in Sports (3)
PHY 181,182 The Physical World (4, 4)
PHY 183,184 Physics Laboratory (1, 1) LAB

Foundation V. Mathematics, Formal Reasoning, Technology (3 hours minimum)

ARC 212 Principles of Environmental Systems (3)
ATH 309/ENG 303/GER 309/SPN 303 Introduction to Linguistics (3)
CSE 151 Computers, Computer Science, and Society (3)
CSE 163 Introduction to Computer Concepts and Programming (3)
MTH 115 Mathematics for Teachers of Grades P-6 (4)
MTH 121 Finite Mathematical Models (3)
MTH 151 Calculus I (5)
MTH 153 Calculus I (4)
MTH 249 Calculus II (5)
PHL 273 Formal Logic (4)
STA 261 Statistics (4)

Foundation Courses That Meet the Cultures (Cul) Requirement

AAA 201 Introduction to Asian/Asian American Studies (3) IIB, IIC, IIIB, H
AAA/REL 203 Religions of India (3) IIB, IIIB, H
AAA/SOC 207 China and Globalization (3) IIB, IIIB
AMS 205 Introduction to American Studies (3) IIB, H
ARC 107 Global Design (3) IIA, IIIB
ART 107 Art in a Global Context (3) IIA, IIB, H
ART/AMS 183 Images of America (3) IIA, IIB
ART 185 India and Southeast Asia (3) IIA, IIB, H
ART 233 Global Perspectives on Dress (3) IIA
ART/JPN 279 Buddhism and Culture: China and Japan (4) IIB, H
ATH 175 Peoples of the World (3) IIC
ATH 185 Cultural Diversity in the U.S. (3) IIC
ATH/GEO/HST/REL 207 Civilization of the Middle East (3) IIC, H
ATH/BWS/GEO/HST/REL 209 Civilization of Africa (3) IIC, H
ATH/HST/POL/REL/RUS/ 254 Introduction to Russian and Eurasian Studies (3) IIB, H
BWS 151 Introduction to Black World Studies (4) IIC, H
CHI 251 Chinese Literature in English Translation (3) IIB
CHI 252 Modern Chinese Literature in English Translation (3) IIB
CHI/JPN 255 Drama in China and Japan in Translation (3) IIB
CLS 101 Greek Civilization (3) IIB
CLS 102 Roman Civilization (3) IIB
COM/DST 247 Rhetoric of Disability Rights (3) IIB
COM/FST 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3) IIB
COM/FST/IDS 206 Diversity and Culture in American Film (3) IIB
ENG 162 Literature and Identity (3) IIB
ENG/DST 169 Disability Identity (3) IIB
ENG 202 Varieties of English: Dialect Diversity and Language Change (3) IIB
ENG 271 Cultures and Literature of the American South (3) IIB, H
ENG/AMS 246 Native American Literature (3) IIB
ENG/AMS 247 Appalachian Literature (3) IIB
ENG/AMS 248 Asian American Literature (3) IIB
ENG/LAS 254 Latino/a Literature and the Americas (3) IIB, IIIB
FRE 131 Masterpieces of French Literature in Translation (3) IIB, IIIB
FRE 202 Critical Analysis of French Culture (3) IIB, IIIB
FRE/GER/RUS 212; HST 211 Secular Jewish Culture From the Enlightenment to Zionism (3) IIB, H
FRE/FST/GER 255 Visual Representations of the Holocaust (3) IIB, H
GEO 101 Global Forces, Local Diversity (3) IIB, IIC, IIIB
GEO 111 World Regional Geography: Patterns and Issues (3) IIC
GEO 201 Geography of Urban Diversity (3) IIC
GEO/HST/ITS/SOC 208 The Rise of Industrialism in East Asia (3) IIC, H
GER 151 The German-American Experience (3) IIB, H
GER 231 Folk Fairy Tales and Literary Fairy Tales (3) IIB, H
GER 251 German Literature in Translation: Changing Concepts of the Self (3) IIB, H
GER 252 Jews and German Culture (3) IIB, H
GER 321 Cultural Topics in German-Speaking Europe: 1870 to Present (3) IIB, H
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S. (3) IIB, H
HST 111, 112 Survey of American History (3, 3) IIB, H
HST 121, 122 Western Civilization (3, 3) IIB, H
HST 197 World History to 1500 (3) IIB, IIIB, H
HST 198 World History Since 1500 (3) IIB, IIIB, H
HST/BWS 224 Africa in History (3) IIB, H
HST/BWS 225 The Making of Modern Africa (3) IIB, H
HST 245 The Making of Modern Europe (3) IIB, IIIB, H
HST/LAS 260 Latin America in the United States (3) IIB, IIIB, H
HST 296 World History Since 1945 (3) IIB, H
ITL 221 Italy, Matrix of Civilization (3) IIB, H
ITL/AMS/FST 222 Italian American Culture (3) IIB
ITS 201 Introduction to International Studies (3) IIB, IIC, IIIB, H
JPN 231 Tales of the Supernatural in English Translation (3) IIB, H
LAS 207 Latin America before 1910 (3) IIC, H
LAS 208/ATH 206 Introduction to Latin America (3) IIC, IIIB, H
MUS/AMS 135 Understanding Jazz: Its History and Context (3) IIA, IIB, IIIB, H
MUS 185 The Diverse Worlds of Music (3) IIA, IIB, IIIB, H
MUS 287 Enter the Diva: Women in Music (3) IIA, IIB
PHL 106 Thought and Culture of India and South Asia (3) IIB, H
POL 142 American Politics and Diversity (4) IIC
POL 159 U.S. Identity Politics (3) IIC
POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIB, IIIB
PSY 210 Psychology Across Cultures (3) IIC
REL/RUS 133 Imagining Russia (3) IIB, IIIB, H
RUS 137 Russian Folklore (3) IIB, IIIB
REL 186 Global Judaism (3) IIB, IIIB, H
SOC 141 Multiculturalism in the U.S. (3) IIC
SOC 152 Social Relations and U.S. Cultures (4) IIC
SPA 211 Deaf Culture and Community (3) IIC
SPA/DST 212 Deaf Culture: Global, National and Local Issues (3) IIC
WMS 201 Introduction to Women's Studies (3) IIC
WMS 202 Introduction to GLBT Studies (3) IIB

Foundation Courses That Meet the Historical Perspective (H) Requirement

AAA 201 Introduction to Asian/ Asian American Studies (3) IIB, IIC, IIIB, CuI
AAA/REL 203 Religions of India (3) IIB, IIIB, CuI
AMS 205 Introduction to American Studies (3) IIB, CuI
ARC 188 Ideas in Western Architecture (3) IIA, IIB
ARC 221, 222 History and Philosophy of Environmental Design (3, 3) IIA, IIB
ART 107 Art in a Global Context (3) IIA, IIB, CuI
ART 185 India and Southeast Asia (3) IIA, IIB, CuI
ART 187 History of Western Art: Prehistoric-Gothic (3) IIA, IIB
ART 188 History of Western Art: Renaissance-Modern (3) IIA, IIB
ART 189 History of Western Dress (3) IIA, IIB
ART/JPN 279 Buddhism and Culture: China and Japan (4) IIB, CuI
ART 282 Art and Politics (3) IIA, IIB
ART 286 China, Korea, and Japan (3) IIA, IIB, CuI
ATH/GEO/REL 207 Civilization of the Middle East (3) IIC, CuI
ATH/BWS/GEO/REL 209 Civilization of Africa (3) IIC, CuI
ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3) IIB, CuI
BWS 151 Introduction to Black World Studies (4) IIC, CuI
CLS 101 Greek Civilization (3) IIB
CLS 102 Roman Civilization (3) IIB
CLS 121 Introduction to Classical Mythology (3) IIB
ENG 125 Introduction to Drama (3) IIB
ENG 131, 132, 133 Life and Thought in English Literature (3, 3, 3) IIB
ENG 141, 142, 143 Life and Thought in American Literature (3, 3, 3) IIB
ENG 163 Literature and Travel (3) IIB
ENG 165 Literature and Sexuality (3) IIB
ENG 251, 252 Life and Thought in European Literature (3, 3) IIB
ENG 271 Cultures and Literature of the American South (3) IIB, CuI
FRE 131 Masterpieces of French Literature in Translation (3) IIB, IIIB, CuI
FRE/GER/RUS 212; HST 211 Secular Jewish Culture From the Enlightenment to Zionism (3) IIB, CuI
FRE/FST/GER 255 Visual Representations of the Holocaust (3) IIB, CuI
GEO/HST/ITS/SOC 208 The Rise of Industrialism in East Asia (3) IIC, CuI
GER 151 The German-American Experience (3) II, CuI
GER 231 Folk Fairy Tales and Literary Fairy Tales (3) IIB, CuI
GER 251 German Literature in Translation: Changing Concepts of the Self (3) IIB, CuI
GER 252 Jews and German Culture (3) IIB, CuI
GER 321 Cultural Topics in German-Speaking Europe: 1870 to Present (3) IIB, CuI
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S. (3) IIB, CuI
GLG 111 The Dynamic Earth (3) IVB
HST 111, 112 Survey of American History (3, 3) IIB, CuI
HST 121, 122 Western Civilization (3, 3) IIB, CuI
HST 197 World History to 1500 (3) IIB, IIIB, CuI
HST 198 World History Since 1500 (3) IIB, IIIB, CuI
HST/BWS 224 Africa in History (3) IIB, CuI
HST/BWS 225 The Making of Modern Africa (3) IIB, CuI
HST 245 The Making of Modern Europe, 1450-1780 (3) IIB, IIIB, CuI
HST/LAS 260 Latin America in the United States (3) IIB, IIIB, CuI
HST 296 World History Since 1945 (3) IIB, CuI
ITL 221 Italy, Matrix of Civilization (3) IIB, CuI
ITS 201 Introduction to International Studies (3) IIB, IIC, IIB, CuI
JPN 231 Tales of the Supernatural in English Translation (3) IIB, CuI
KNH 276 The Meaning of Leisure (3) IIC
KNH 292 Dance, Culture, and Contexts (3) IIB
LAS 207 Latin America before 1910 (3) IIC, CuI
LAS 208/ATH 206 Introduction to Latin America (3) IIC, IIIB, CuI
MUS/AMS 135 Understanding Jazz: Its History and Context (3) IIA, CuI
MUS 185 The Diverse Worlds of Music (3) IIA, IIB, IIIB, CuI
MUS 189 Great Ideas in Western Music (3) IIA
PHL 104 Purpose or Chance in the Universe (3) IIB
PHL 106 Thought and Culture of India and South Asia (3) IIB, CuI
PHY 111 Astronomy and Space Physics (3) IVB
REL 102 Religion and Modern Culture (3) IIB
REL 103 Religion, History, and Society (3) IIB
REL/RUS 133 Imagining Russia (3) IIB, IIIB, CuI
REL 175 Introduction to the Critical Study of Biblical Literature (3) IIB
REL 186 Global Judaism (3) IIB, IIIB, CuI
REL 213 Religious and Social History of the Jewish People (3) IIB
THE 191 Experiencing Theatre (3) IIA

Thematic Sequence (9 hours minimum)

A Thematic Sequence is a series of related courses (usually three) that focuses on a theme or subject in a developmental way. Each course builds or expands upon knowledge or perspective gained from preceding courses, and some sequences prepare students for Capstone experiences. The first course may be a Foundation course and may count as hours in both Foundation and Thematic Sequence requirements. (Should the Thematic Sequence contain more than one Foundation course, only one of those courses can be counted for both requirements.) In interdepartmental Thematic Sequences, students must select those courses that are offered outside their department of major. For example, English majors who enroll in a Thematic Sequence comprised of English and history courses must sign up for the history courses.

Students must complete at least one Thematic Sequence outside the department of their major. Exceptions to this requirement include either students with majors in two different academic departments or students with minors outside their department of major. Students should consult divisional requirements for further restrictions on Thematic Sequences.

Students who wish to meet the Thematic Sequence requirement through a double major or a minor must complete the second major or minor outside their department of major. A student who uses a minor to complete the thematic sequence requirement must have 9 hours in the minor outside the department/program of his/her major, and at least 6 hours of these courses at the 200 level or above.

Typically, you are expected to complete most of your Foundation courses before beginning a Thematic Sequence. To **enroll in a sequence,** contact the department listed in the *Course Schedule* or the *Course Planning Guide***.**

The Office of Liberal Education website (*www.muohio.edu/led*) provides a current listing of Thematic Sequences. Students may propose their own Thematic Sequences. See the office of Liberal Education website for details.

Thematic Sequences

ACC 1 A Language of Accounting
ACC 2 Financial Accounting and Reporting
AES 1 Air Power and National Security
ART 2 Ceramics Studio
ART 3 Metals Studio
ART 4 Sculpture Studio
ART 5 Three-Dimensional Art Studio
ATH 1 Earth, Ecology, and Human Culture
ATH 2 Museum Studies
ATH 3 World Cultures
ATH 4 World Cultures, Policy, and Ecology
ATH 5 World Cultures and Social Relations
BLS 1 Law and Commerce
BOT 1 Conservation and the Environment
BOT 2 Molecular Processes: From Cells to Whole Plants
BOT 3 Plant Ecology
BOT 4 Plant Structure and Development
CHI 1 Developing Language Skills in Chinese
CHM 1 Chemistry of Environmental Measurements
CHM 2 Chemistry of Life Processes
CLS 1 Classical Civilization
CLS 2 Classical Literature
COM 1 Relational Communication and Development in Modern Society
COM 3 Contexts of Mass Media
COM 4 Communication in Business and Society (offered Summer only)

CSE 2 Computer Systems
CSE 3 Mathematical and Computer Modeling
CSE 4 Website and Game Technology
DSC 1 Quantitative Concepts for Managerial Decision Making
DSC 2 Applied Business Statistics
ECO 1 Economics of Labor Markets
ECO 2 Markets, Institutions, and the Role of Government
ECO 3 Business Cycles, Economic Welfare, and Macroeconomic Policy
ECO 4 Exchange, Growth, and Development in the Global Economy
ECO 5 Sustainable Systems
ECO 6 Microeconomic Perspectives
EDL 1 Cultural Studies and Public Life
EDP 1 Developmental, Social, and Educational Patterns in Individuals with Exceptionalities
ENG 1 Victorian Literature and Culture
ENG 2 Women and Literature
ENG 3 American Life and Culture Since World War II
ENG 4 Film in Popular Culture
ENG 5 Language and Literacy
ENG 6 Modernism
ENG 7 The Romantic Era
ENG 8 African American History and Literature
ENG 9 Writing for Specialized Audiences: Print and Online Design and Composition
ESP 1 Entrepreneurship in Different Contexts
FRE 1 French Cultural Studies (with FRE Capstone)
FRE 2 French Cultural Studies (without FRE Capstone)
FRE 3 European Cinema
FSW 1 Services and Supports for Children, Youth, and Families
FSW 3 Families and Sexuality Across the Life Course
FSW 4 Children in Families
GEO 1 Urban Geography
GEO 2 Earth's Physical Environment: Geographic Patterns and Processes
GEO 3 Geographic Change
GEO 4 Global Forces in Regional Contexts
GER 1 Culture, Literature, and Language of German Speaking Europe
GER 3 Developing Language Skills in German
GLG 1 Oceanography
GLG 2 The Water Planet
GLG 3 Plate Tectonics
GTY 1 Sociological Perspectives on Aging
GTY 2 Aging in Diverse Contexts
GTY 3 Health and Aging
HST 1 Medieval Studies
HST 2 Women and Gender in History
HST 3 Russian, East European and Eurasian Studies (cross-listed with POL 7)
IMS 4 Perspectives on Interactive Media
ITL 1 Italy in the Renaissance
JPN 1 Developing Language Skills in Japanese
JST 1 Jewish Studies
KNH 1 Biophysical Health Across the Lifespan
LAS 1 Modern Latin American Development
LAS 2 People and Power in the Americas
LED 1 Urban Culture and Service Learning
MBI 1 Biomedical Science
MBI 2 Molecular Genetics
MGT 1 Dynamics of Human Behavior in Organizations
MIS 1 Information Management, Technology, and the Role of Electronic Commerce
MIS 2 Applications Integration With Enterprise Systems
MIS 3 Web Mining and Knowledge Management
MKT 5 Creating Customer Value Through Marketing
MTH 1 Axioms, Theorems, and Proof in Geometry and Algebra
MTH 2 Basic Mathematical Tools for Science
MTH 3 Almost Linear Structures: Models for Physical Science
MUS 1 The Performance of Music
MUS 2 Music Composition
MUS 3 African and African-Derived Music in the Western World
NSC 1 Naval Science: History of Warfare
NSC 2 Naval Science: War-An Extension of Politics
NSC 3 The Naval Sciences-An Integrated Study of Naval Engineering, Navigation, and Piloting
PCE 1 Chemical Engineering Principles
PHL 1 Ethics (temporarily unavailable on Oxford campus)
PHL 4 Metaphysics and Epistemology
PHL 5 Reasoning
PHY 1 The Physical World: Contemporary Physics
PHY 2 Your Place in the Universe
POL 1 Comparative Analysis of Foreign Policy
POL 3 National Political Institutions
POL 7 Russian, East European and Eurasian Studies (crosslisted with HST 3)
PSY 1 Perspectives on Psychopathology
PSY 2 Patterns in Human Development
PSY 4 Developmental Patterns in Adulthood
PSY 5 Cognition: Understanding and Improving Thought
REL 1 Religion and American Life
REL 2 Historical and Comparative Study of Religion
REL 3 Religion and Philosophy of Buddhist Asia
REL 5 Jewish Civilization Through History
RUS 1 Russia and the Soviet Union
RUS 2 Russian Culture
RUS 3 Developing Language Skills in Russian
SBI 1 Business Institute for Non-Business Students
SDT 1 Self Designed Thematic Sequence
SOC 2 Applied Social Science Methods
SOC 3 Sociological Perspectives on Inequality
SOC 4 Sociological Perspectives on Criminality and Deviance
SOC 5 Gender and Family Issues
SPA 2 Exploring Social, Emotional, and Communication Consequences in Special Populations
SPN 1 Literature and Culture in Spain
SPN 2 Literature and Culture in Spanish America
SPN 3 Spanish Language and Culture
STA 1 Quality Issues in Contemporary Business and Industry
STA 2 Applied Statistics
THE 1 Modern Theatre and Drama
WMS 1 Women and the World
WMS 2 Scholarly Studies of Gender and Sexuality
ZOO 1 Concepts in Physiology
ZOO 2 Animal Diversity

Thematic Sequences Available at Dolibois European Campus in Luxembourg

For information, contact the Oxford campus coordinator (513-529-5050).
LUX 1 The Development of Contemporary Europe -Social Science Emphasis
LUX 2 The European Cultural Heritage
LUX 3 European Culture and Society
LUX 4 The Development of Contemporary Europe - Business Emphasis

Descriptions of Thematic Sequences

ACC 1 A Language of Accounting.
Develops in non-business majors an ability to read and understand general-purpose external financial statements and internal managerial accounting reports for businesses and not-for-profit organizations. As such financial data are widely disseminated across all contexts in our society, a knowledge of the language of accounting is useful in a professional career and personal life. The focus is on using and interpreting, rather than preparing, financial statements and internal accounting reports.

1. ACC 221 Introduction to Financial Accounting (3); and
2. ACC 222 Introduction to Managerial Accounting (3); and
3. ACC 468 Accounting for Governmental Operations (2); and
4. ACC 469 Accounting for Non-Governmental Not-For-Profit Organizations (1)

Note: Not open to business majors.

ACC 2 Financial Accounting and Reporting.
Develops in business majors as well as non-business majors an ability to read and understand general-purpose financial statements of businesses, ranging from large publicly traded corporations to small privately held companies. As such financial information is widely disseminated, an understanding of financial statements is useful in a professional career and personal life. The sequence progresses from an introductory level, which focuses on using and interpreting financial statements, through intermediate and

advanced levels, which examine the impact of more complex transactions and events on financial statements.

1. ACC 221 Introduction to Financial Accounting (3); and
2. ACC 321 Intermediate Financial Accounting (3); and
3. ACC 422 Financial Accounting Research (3)

Note: Not open to business majors.

AES 1 Air Power and National Security.
Provides students opportunity to examine critically the definitions of national security and how national security policies affect-and are affected by-the context of international politics. The sequence examines, in particular, how the United States Air Force plays a major role in formulating national security policies.

1. POL 271 International Politics (MPF) (4); and
2. AES 221, 222 The Development of Air Power (1, 1); and
3. POL 376 U.S. National Security Policy (3); and
4. AES 431 National Security Forces in Contemporary American Society (3)

Note: Not open to majors in the Department of Political Science.

ART 2 Ceramics Studio
Explores and develops concepts, techniques, materials, methods, and critical aesthetic thinking as applied to the process of making utilitarian or sculptural ceramics. Ceramics as a nonverbal visual language is taught through research, production, viewing, interaction, and verbal critique with a focus on further development toward a significant personal expression at the 300 level. Prerequisite: ART 171 Visual Fundamentals 3-D (3), or ARC 101, 102 Environmental Design Studio (5, 5).

1. ART 261 Ceramics I (3); and
2. ART 361 Ceramics II (3); and
3. ART 362 Ceramics III (3)

Note: Not open to majors in the Department of Art.

ART 3 Metals Studio.
Explores and develops concepts, critical aesthetic thinking, methods, techniques, and materials as applied to the process of designing and making of jewelry, holloware, as well as functional and nonfunctional objects in non-precious and precious metals. Metals as a visual language is taught through research, interaction, production, and verbal critique with a focus on further development toward a more significant personal expression at the 300 level. Prerequisite: ART 171 Visual Fundamentals 3-D (3), or ARC 101, 102 Environmental Design Studio (5, 5).

1. ART 264 Jewelry Design and Metals I (3); and
2. ART 364 Jewelry Design and Metals II (3); and
3. ART 365 Jewelry Design and Metals III (3)

Note: Not open to majors in the Department of Art.

ART 4 Sculpture Studio.
Explores concepts and develops critical aesthetic thinking, methods, techniques, and materials as applied to the process of making sculpture. Sculpture, as a visual language, is taught through viewing, research, interaction, production, and verbal critique with focus on further development toward significant personal expression at the 300 level. Prerequisite: ART 171 Visual Fundamentals 3-D (3), or ARC 101, 102 Environmental Design Studio (5, 5).

1. ART 271 Introduction to Sculpture I (3); and
2. ART 371 Sculpture II (3); and
3. ART 372 Sculpture III (3)

Note: Not open to majors in the Department of Art.

ART 5 Three-Dimensional Art Studio.
Explores and develops concepts, techniques, materials, methods, and critical aesthetic thinking as applied to the process of making three-dimensional objects. Three-dimensional art as a nonverbal language is taught through research, production, viewing, interaction, and verbal critique with a focus on further development toward a significant personal expression. Begins with the departmental core course then provides a broad experience of working in three disciplines: metals, ceramics, and sculpture. Prerequisite: ART 171 Visual Fundamentals 3-D (3), or ARC 101, 102 Environmental Design Studio (5, 5).

Courses may be taken in any order:

ART 261 Ceramics I (3); and

ART 264 Jewelry Design & Metals I (3); and

ART 271 Sculpture I (3)

Note: Not open to majors in the Department of Art.

ATH 1 Earth, Ecology, and Human Culture.
Examines some of the complex interrelationships of human culture with the earth. Because cultural assumptions have roots in religion, philosophy, politics, and economics, the sequence explores ways in which basic ideas in these fields influence our understanding of our relation to the earth, its biosphere, history, and resources.

1. PHL 376 Environmental Philosophy (4); and
2. Two from the following:

ATH 371 Anthropology of Parks and Protected Areas (3)

ATH 471 Ecological Anthropology (3)

GEO 271 Humans and Natural Resources (3)

Note: Not open to majors in the Department of Philosophy. Majors in anthropology or in the departments of Geography or Geology must select a minimum of nine hours outside their department of major.

ATH 2 Museum Studies.
Provides an understanding of museum functions, their cultural and historical context, cultural processes of granting significance and value to the tangible world, and opportunity to participate in solving problems and making decisions in museum work. Work with museum collections, conservation techniques, information management, interpretation, communication, and exhibition. With great diversity in museum responsibilities and activities, this sequence provides opportunity to apply knowledge within a practical context.

1. ATH 441 Museum Development, Philosophy, and Social Context (3); and
2. ATH 444 Museum Collections Management and Conservation (3); and
3. ATH 443 The Museum Exhibit (3)

Note: Not open to anthropology majors.

ATH 3 World Cultures.
Provides an appreciation of human cultural diversity and how anthropologists interpret that diversity in marriage and family patterns, political and economic organizations, and symbol systems. Acquaints you with various perspectives anthropologists use to understand human cultural variability. The final course allows you to pursue cultural diversity in one of the world's major culture areas or in the relations between culture and one specific aspect of life for all people, such as personality, environment, or cognition.

1. ATH 175 Peoples of the World (MPF) (3); and
2. ATH 231 Perspectives on Culture (3); and
3. ATH 303 Native American Culture (4), or
   ATH 304 Contemporary Issues in Native American Life (3), or
   ATH 305 Peoples and Cultures of Latin America (3), or
   ATH 307 Peoples and Cultures of the Middle East (3), or
   ATH/BWS/LAS/WMS 325 Identity: Race, Gender, Class (3), or ATH 331 Social Anthropology (3), or
   ATH/BWS 366 African Oral Traditions (3), or
   ATH 471 Ecological Anthropology (3)

Note: Not open to anthropology majors.

ATH 4 World Cultures, Policy, and Ecology.
Provides an appreciation of human cultural diversity and envelops anthropological approaches to understanding diversity in political, economic and environmental organization and practice.

1. ATH 175 Peoples of the World (3); and
2. One of the following courses on a World Area:
   ATH 303 Native American Cultures (4); or
   ATH 304 Contemporary Issues in Native American Life (3); or
   ATH 305 Peoples and Cultures of Latin America (3); or
   ATH/GEO 306 Peoples and Cultures of Russia and

Eurasia (3); or
ATH 307 Peoples and Cultures of the Middle East (3); or
ATH 329 Religions of Africa (3); or
ATH 364 Language and Cultures in Native North America (3); or
ATH/BWS 366 African Oral Traditions (3); and

3. Take one of the following courses on anthropological topics in world cultures:
ATH 411 Applied Anthropology (3); or
ATH 431 Origins of the State (3); or
ATH 471 Ecological Anthropology (3).

Note: Not open to anthropology majors.

ATH 5 World Cultures and Social Relations.
Provides an appreciation of human cultural diversity and develops anthropological approaches to understanding diversity in social and economic organization, marriage and family patterns, and other facets and forums for social relations.

1. ATH 175 Peoples of the World (3); and

2. One of the following courses on a World Area:
ATH 303 Native American Cultures (4); or
ATH 304 Contemporary Issues in Native American Life (3); or
ATH 305 Peoples and Cultures of Latin America (3); or
ATH/GEO 306 Peoples and Cultures of Russia and Eurasia (3); or
ATH 307 Peoples and Cultures of the Middle East (3); or
ATH 329 Religions of Africa (3); or
ATH 364 Language and Cultures in Native North America (3); or
ATH/BWS 366 African Oral Traditions (3); and

3. One of the following courses on anthropological topics in world cultures:
ATH/ITS 301 Intercultural Relations (3); or
ATH/BWS/LAS/WMS 325 Identity: Race, Gender, Class, Sexuality (3);
ATH 331 Social Anthropology (3), or
ATH 384 Anthropology of Capitalism (3)

Note: Not open to anthropology majors.

BLS 1 Law and Commerce.
Examines legal theory, history, and institutions as they relate to American culture, society and business. Focuses on why and how "American law" developed, how and why it is applied, how and why the law is evolving, and how and why it impacts commerce. Applies legal principles to analyze, identify and solve legal problems arising in common business activity. Emphasizes in-depth study of legal rules, rationale, and application in substantive areas of law and commerce. Acquaints potential law students with legal thinking and application in substantive areas of law and commerce. Acquaints potential law students with legal thinking and concepts.

1. BLS 342 Legal Environment of Business (3)*; and

2. BLS 442 Business Associations and Commercial Law (3); and

3. ECO 385 Government and Business (3), or
BLS 437 Cyberlaw (3)
BLS 443 Property Law (3), or
BLS 462 Estates, Wills, and Trusts (3), or
BLS 464 International Business Law (3), or
MGT 402 Employment Law (3)

* Certain sections of BLS 342 have seats designated for non-business majors who wish to enroll in the sequence. Please contact Dr. Daniel Herron, 14 Upham (513-529-1574) for admission to these sections.

Note: Not open to majors in business.

BOT 1 Conservation and the Environment.
Focuses on the challenge of reconciling increasing demands on resources with limitations on resource availability, and explores conservation as it pertains to the environment from a biological and social science perspective, including a historical overview. The first course, chosen from three options, is also a Foundation course in the biological science area. The second course integrates ecological, socioeconomic, and policy perspectives on the use and management of natural resources. The third course focuses on applied problem solving.

1. BOT 131 Plants, Humanity, and Environment (MPF) (3), or
BOT 171 Ecology of North America (MPF) (3), or
ZOO 121 Environmental Biology (MPF) (3); and

2. GEO 271 Human Dimensions of Natural Resource Conservation (3); and

3. IES 431 Principles and Applications of Environmental Science (3)

Note: Not open to majors in the Department of Geography. Majors in the Department of Botany must select ZOO 121 at the first level; majors in the Department of Zoology must select a botany course at the first level.

BOT 2 Molecular Processes: From Cells to Whole Plants.
A contemporary consideration of how plants work mechanistically. Combines molecular and subcellular structure and function with physical and chemical measurements of underlying genetic and physiological controls. Deals with establishment, replication, maintenance, coordination, and adaptive responses of plants at organizational levels ranging from molecules to whole plants.

1. BOT 191 General Botany (MPF) (4), or

BOT/MBI/ZOO 116 Biological Concepts: Structure, Function,

Cellular, and Molecular Biology (MPF) (4); and

2. BOT 203 Introduction to Plant Cell and Molecular Biology (4); and

3. BOT/ZOO 342 Genetics (3), or

BOT 425 Plant Physiology (4)

Note: Not open to majors in the Department of Botany. Majors in the Department of Zoology must take BOT 342 or BOT 425 at the third level.

BOT 3 Plant Ecology.
Provides an understanding of how plants interact with the environment, other plants, and other organisms. Included is study of the evolution of plant traits that are important in these interactions and factors that influence plant distributions at global and local scales. Several levels of organization are covered, including individuals, populations, communities, ecosystems, and landscapes.

1. BOT/MBI/ZOO 115 Biological Concepts (MPF) (4), or
BOT 191 General Botany (MPF) (4); and

2. BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4); and

3. BOT 401 Plant Ecology (3), or
BOT/GEO 431 Global Plant Diversity (3), or
BOT/GEO 432 Ecoregions of North America (3)

Note: Not open to majors in the Department of Botany.

BOT 4 Plant Structure and Development.
In order to appreciate the unique role that plants play in the world's ecosystems, it is important to understand plant structure and development. This sequence allows students to consider plants from the molecular and cellular level to the tissue and organ level. It illustrates how evolutionary forces have resulted in exquisite adaptations in plant form and function.

1. BOT/MBI/ZOO 116 Biological Concepts: Structure, Function (MPF) (4), or
BOT 191 General Botany (MPF) (4); and

2. BOT 203 Introduction to Plant Cell and Molecular Biology (4); and

3. BOT 312 Plant and Fungal Diversity (3); or
BOT 402 Plant Anatomy (3)

Note: Not open to majors in the Department of Botany.

CHI 1 Developing Language Skills in Chinese.
For students who have completed the first two semesters of college-level Chinese language or the equivalent. This sequence develops speaking, listening, reading and writing ability using a variety of materials drawn from textbooks as well as multimedia. The courses are characterized by small sections and in-class and out-of-class interaction. Courses may not be taken credit/no credit and must be taken in order.

1. CHI 201 Intermediate Chinese I (3)

2. CHI 202 Intermediate Chinese II (3)

3. CHI 301 Chinese Conversation, Composition, Reading (3)

CHM 1 Chemistry of Environmental Measurements.
Enhances theoretical knowledge toward understanding environmental chemical issues and provides a foundation for learning followed by systematic investigation of advanced concepts in chemistry. Allows accomplished students to take alternative courses.

1. CHM 142, 145 College Chemistry/College Chemistry Laboratory (3, 2), or
   CHM 142M, 161 Inorganic Chemistry, Quantitative Analysis (4, 2); and

2. CHM 231 Fundamentals of Organic Chemistry (4), or
   CHM 241, 244 Organic Chemistry, Organic Chemistry Laboratory (3, 2), or
   CHM 251, 254 Organic Chemistry for Chemistry Majors, Laboratory (3, 3); and

3. CHM 363, 364 Analytical Chemistry, Analytical Chemistry Laboratory (3, 2)

Note: Not open to majors in the Department of Chemistry and Biochemistry.

CHM 2 Chemistry of Life Processes.
Enhances theoretical knowledge toward understanding biochemistry and provides a foundation for learning followed by the systematic investigation of advanced concepts in chemistry. Allows accomplished students to take alternative courses. Prerequisite: CHM 141, 144 or 151, 153 (all Foundation courses); alternative courses require additional prerequisites.

1. CHM 142, 145 College Chemistry/College Chemistry Laboratory (3, 2), or
   CHM 142M, 161 Inorganic Chemistry,

   Quantitative Analysis (4, 2); and

2. CHM 231 Fundamentals of Organic Chemistry (4), or
   CHM 241, 244 Organic Chemistry, Organic Chemistry Laboratory (3, 2), or
   CHM 251, 254 Organic Chemistry for Chemistry Majors, Laboratory (3, 3); and

3. CHM 332 Outlines in Biochemistry (4), or
   CHM 432 Fundamentals of Biochemistry (4), or
   CHM 433 Biochemistry (4)

Note: Not open to majors in the Department of Chemistry and Biochemistry.

CLS 1 Classical Civilization.
Combines a general introduction to classical civilization and an in-depth encounter with Greco-Roman civilization, focusing on elements that provide opportunities for observing differences between modern and ancient civilization. Uses literature, monuments, legal documents, art, and sculpture to examine key examples of social organization, including the status of women, legal structures, and urban organization.

1. CLS 101 Greek Civilization in its Mediterranean Context (MPF)(3), or
   CLS 102 Roman Civilization (MPF) (3), or
   CLS 121 Introduction to Classical Mythology (MPF) (3); and

2. ART 381 Greek and Roman Architecture (3); or
   CLS 210C Roman Cities (3), or
   CLS 210E Eureka: Monumental Discoveries in the Attics of Antiquity (3), or
   CLS 210J Art and Archaeology of Egypt (3); or
   CLS 210R Race and Ethnicity (3), or
   CLS 235 Women in Antiquity (3), and

3. ART 382 Greek and Roman Painting (3), or
   ART 383 Greek and Roman Sculpture (3), or
   CLS 310D Democracy and Identity in Ancient Athens (3), or
   CLS 310E Conflict in Greco-Roman Egypt (3), or
   CLS 310I Ancient Imperialism (3), or
   CLS 310T Arts and Empire in the Classical World and Russia (3), or
   CLS 321 Justice and the Law (3), or
   CLS 322 Growing Old in Greece and Rome (3), or
   REL 334 Women's Religious Experiences in the Ancient Mediterranean World (3)

Note: Not open to majors in the Department of Classics. Majors in the departments of Art and Comparative Religion must select a minimum of nine hours outside their department of major.

CLS 2 Classical Literature.
Provides an overview of Greek or Roman literature, then examines in detail the historical evolution of specific genres, such as tragedy, drama, and epic. Attention to historical forces that brought these genres into existence and those forces that affected their growth and development.

1. CLS 101 Greek Civilization in its Mediterranean Context (MPF) (3), or
   CLS 102 Roman Civilization (MPF) (3), or
   CLS 121 Introduction to Classical Mythology (MPF) (3); and

2. CLS 210/RUS 250 Classical Tradition in Russian Poetry (3); or
   CLS 211 Greek and Roman Epic (3), or
   CLS 212 Greek Tragedy (3), or
   CLS 213 Greek and Roman Comedy (3); or
   CLS 215 Roman Historians (3); and

3. CLS 310P From the Lair of the Cyclops to the Surface of the Moon: Travel and Self-Definition in Antiquity (3), or
   CLS 310S Egypt in Greco-Roman History and Fiction (3)
   CLS 310T Arts and Empire in the Classical World and Russia (3)
   CLS 316 Greek and Roman Lyric Poetry (3), or
   CLS 317 Greek and Roman Philosophical Writers (3), or
   CLS 331 From Epic to Romance (3)

Note: Not open to majors in the Department of Classics.

COM 1 Relational Communication and Development in Modern Society.
Explores how people use verbal and nonverbal communication to define, negotiate, and change their interpersonal relationships. Seeks to enhance an appreciation of the importance of context and diversity by exploring cultural and individual difference variables, employing a transactional perspective, and examining diverse relational situations.

1. COM 136 Introduction to Interpersonal Communication (MPF) (3); and

2. COM 336 Advanced Interpersonal Communication (3); and

3. COM 428 Communication in Conflict Management (3), or
   COM 434 Nonverbal Communication (3), or
   FSW/WMS 361 Couple Relationships: Diversity and Change (3)

Note: Not open to majors in the Department of Communication. Majors in the Department of Family Studies and Social Work must select a minimum of nine hours outside their department of major.

COM 3 Contexts of Mass Media.
Focuses on ways the mass media have developed and the ways scholars have sought to explain the impact of media on society and society's impact on media. Explores how the media are historically situated and how political, economic, social and cultural structures, and decisions have led to the type of media that have developed in this country and around the world.

1. COM 143 Introduction to Mass Communication Theory and Issues (MPF) (3); and

2. COM 215 Electronic Media History (3); and

3. COM 354 Media and Society (3)

Note: Not open to majors in the Department of Communication.

COM 4 Communication in Business and Society.
This unique and intense program is designed to allow students to gain an understanding of the role of communication in business contexts, how it establishes relationships, and the influence on society that evolves from business communication. Communication is explored in multiple contexts ranging from interpersonal and small group, to communication within organizations, and communication with publics outside the organization. Ethics and diversity issues are considered throughout the sequence of classes.

1. COM 136 Introduction to Interpersonal Communication (MPF) (3); and
2. COM 259 Introduction to Strategic Communication and Public Relations; and
3. COM 339 Introduction to Organizational Communication

Note: Not open to majors in the Department of Communication.

CSE 2 Computer Programming.
Because computer information systems usually are not developed by single individuals, it is likely that you will participate on a development team during your professional life. With this sequence, you are in a unique position to understand, assist, and contribute to the development of information systems that improve your own and your colleagues' way of work. Prerequisite: Ability to program.

1. CSE 174 Fundamentals of Programming and Problem Solving (3); and
2. CSE 271 Object-Oriented Programming (3); and
3. CSE 252 Web Application Programming (3) **or**

CSE 274 Data Abstraction and Data Structures (3)

Note: Not open to majors in the Department of Computer Science and Software Engineering.

CSE 3 Mathematical and Computer Modeling.
Enhances your ability to approach applied problems in a quantitative way. Use your knowledge of calculus, probability, statistics, and computing to develop quantitative models of problem situations from a variety of areas. The first course provides an introduction to quantitative modeling, using calculus. All elements of the problem situation are represented as constants. The second course uses probability and statistics to create stochastic models in which some elements of the problem are represented as random variables. The third course introduces the use of computers to create simulation models of the problem situation.

1. CSE 273 Optimization Modeling (3); and
2. CSE 372 Stochastic Modeling (3); and
3. CSE 471 Simulation (3)

Note: Not open to majors in the Department of Computer Science and Software Engineering.

CSE 4 Website and Game Technology.
Given the prevalence on computing devices, it is important that we understand what they do and how they do it. The web site and computer game technology thematic sequence is designed to provide students with an intuitive understanding of how computer software is created and designed and how it functions to make possible common applications such as computer games and the World Wide Web. After learning the concepts and skills of computer programming, students will apply this knowledge to design and create a variety of computer games and web applications.

1. Any one of the following introductory courses

CSE 153 Introduction to C/C++ Programming, or

CSE 163 Introduction to Computer Concepts and Programming, or

CSE 174 Fundamentals of Programming and Problem Solving; and

2. CSE 251 Computational Modeling and Simulation (3); and
3. CSE 252 Web Application Programming (3)

DSC 1 Quantitative Concepts for Managerial Decision Making.
Enhances analytical capabilities and provides breadth and depth of course work in decision science methodology. While its contextual orientation is business, the techniques and processes discussed and ways of thinking developed are applicable to every field. The underlying aim is improved decision making and action through thought that is informed by statistical and management science methodologies.

1. DSC 205 Business Statistics (4); and
2. DSC 291 Applied Regression Analysis in Business (3); and
3. DSC 321 Quantitative Analysis of Business Problems (3)

Note: Not open to majors in business.

DSC 2 Applied Business Statistics.
Enhances analytical capabilities and teaches fundamental concepts of statistical thinking. Provides breadth and depth of course work in business statistics methodology. While the academic area of business forms its contextual orientation, the techniques and processes discussed and ways of thinking developed are applicable to every field. The underlying aim is improved decision making and action through thought that is informed by statistical analysis.

1. DSC 205 Business Statistics (4); and
2. DSC 291 Applied Regression Analysis in Business (3); and
3. DSC/STA 365 Statistical Quality Control (3), or
   DSC 432 Survey Sampling in Business (3), or
   DSC 444 Business Forecasting (3), or

DSC 491 Introduction to Data Mining in Business (3)

Note: Not open to majors in the Department of Decision Sciences and Management Information Systems.

ECO 1 Economics of Labor Markets.
Provides an understanding of how labor markets work, the impact and/or need for employment related public policies, and why employment outcomes (wages, benefits, hours worked, retirement ages) differ across time and people. Primarily provides understanding from an economic perspective.

1. ECO 201 Principles of Microeconomics (MPF) (3); and

2 ECO 361 Labor Economics (3); and

3. ECO 462 The Economics of Compensation, Discrimination, and Unionization (3)

Note: Not open to majors in business.

ECO 2 Markets, Institutions, and the Role of Government.
In some situations, competitive markets fail to allocate resources efficiently. In some instances, production is concentrated in the hands of a few firms that may restrain output and raise prices. In other cases, market prices fail to fully reflect the costs or benefits associated with the consumption or production of certain goods. This arises in the case of externalities or government in ensuring allocative efficiency.

1. ECO 201 Principles of Microeconomics (MPF) (3); and
2. Two from the following:
   ECO 321 Economic Institutions and the Competitive System (3), or
   ECO 385 Government and Business (3), or
   ECO 331 Public Sector Economics (3)

Note: Not open to majors in business.

ECO 3 Business Cycles, Economic Welfare, and Macroeconomic Policy.
Concern for the material well-being of individuals motivates the study of aggregates since fluctuations in these aggregates and changes in their growth rates significantly affect welfare. Focuses on possible government initiatives to influence the behavior of economic aggregates and enhance welfare. Addresses rationale for government intervention, practical difficulties associated with actual implementation of policy, and evaluation of policy. Macroeconomic history and current policy discussions provide many applications. Provides understanding of motives, pitfalls, and history of macroeconomic policy.

1. ECO 202 Principles of Macroeconomics (MPF) (3); and
2. ECO 317 Intermediate Macroeconomic Theory (3); and
3. ECO 418 Monetary Theory and Policy (3), or
   ECO 419 Business Cycles (3)

Note: Not open to majors in business.

ECO 4 Exchange, Growth, and Development in the Global Economy.
Evolution of the modern world economy has been influenced not only by technical and institutional changes within national economics but also by interactions among them. Substantial international flows of people, goods, capital, and technology, since the beginning of the modern era, have helped to set the terms for development of national patterns of economic growth and specialization. Introduces formal analysis of international economic relations in the areas of trade, financial flows, and government policies, and then encourages examination of international economic developments in various historical and institutional settings.

1. ECO 344 International Economic Relations (3); and

2. Two from the following:
   ECO 341 Economic History of Modern Europe (3), or
   ECO 342 Comparative Economic Systems (3), or
   ECO 347 Economic Development (3)

Note: Not open to majors in business.

ECO 5 Sustainable Systems.
Sustainability requires that business and resource use be conducted in ways that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining, and enhancing human resources and the environment for the future. Provides scientific, philosophic, and economic principles necessary to appreciate a sustainable system. Sequence of four courses.

1. BOT 131 Plants, Humanity, and the Environment (MPF) (3), or
   ZOO 121 Environmental Biology (MPF) (4), or
   GLG 121 Environmental Geology (MPF) (3); and
2. GEO 271 Conservation of Natural Resources (3); and
3. PHL 376 Environmental Philosophy (4); and
4. ECO 434 Environmental Economics (3)

Note: Not open to majors in the departments of Geography or Philosophy, or in the School of Business. Majors in the departments of Botany, Zoology, and Geology must select a course outside the department of their major at the first level.

ECO 6 Microeconomic Perspectives.
Introduces theory and practice of microeconomics and develops, both intuitively and formally, the prevailing paradigm for describing decision-making processes of microeconomics agents. Students see how the "microeconomic way of thinking" can be applied to a wide variety of topical political and social issues and discover how it provides a coherent and consistent structure for understanding, analyzing, and dealing with "real world" problems.

1. ECO 201 Principles of Microeconomics (MPF) (3); and
2. ECO 202 Principles of Macroeconomics (MPF) (3); and
3. ECO 315 Intermediate Microeconomic Theory (3); and
4. One of the following:
   ECO 321 Economic Institutions and the Competitive System (3), or
   ECO 325 Economic Analysis of Law (3), or
   ECO 331 Public Sector Economics (3), or
   ECO 332 Health Economics (3), or
   ECO 356 Poverty and Income Distribution (3), or
   ECO 361 Labor Economics (3), or
   ECO 385 Government and Business (3), or
   ECO 462 Economics of Compensation (3)

Note: Not open to majors in business.

EDL 1 Cultural Studies and Public Life.
Assists in understanding how culture helps construct public life through deliberate and unwitting actions of people; therefore, reveals one way that you can play an active role in public life of your society. Cultural studies is concerned with the struggles over meaning that reshape and define cultures; therefore, this sequence studies contemporary cultural productions and attempts of people to participate in public life. Emphasis on mass and popular cultures, youth subcultures including minority subcultures such as those associated with African American and Latino cultures. Take these tiers in order.

1. EDL 204 Sociocultural Studies in Education (MPF) (3), or
   BWS/KNH 292 Dance, Culture, and Contexts (MPF) (3), or
   COM/FST 205 American Film as Communication (3); and
2. EDL 282 Culture Studies, Power, and Education (3); and
3. EDL 334 Youth Subcultures, Popular Culture, and the Non-formal Education (3), or
   ARC/BWS 427 The American City Since 1940 (3), or
   SOC/WMS 272 Women and Popular Culture (3), or
   COM/WMS 461 Gender and Media (3)

Note: Open to all majors. Students must select a minimum of nine hours outside their department of major.

EDP 1 Developmental, Social, and Educational Patterns in Individuals with Exceptionalities.
Enhances critical understanding of issues surrounding individuals who fall outside the "norm." Issues include societal values and moral practices related to development, identification, socialization, education, and treatment of these individuals. Explores exceptionality among individuals from the perspectives of psychological "disorder," developmental or educational "difference," and/or "deviance" from socially defined norms. Prerequisite: EDP 101 Psychology of the Learner (MPF) (3), or PSY 111 Introduction to Psychology (MPF) (4), or EDP 201 Human Development and Learning (MPF) (3).

1. EDP 256 Psychology of the Exceptional Learner (3); and
2. Two from the following:
   EDP 402 Individuals with Special Gifts and/or Talents: Social, Educational, and Legal Issues (3), or
   EDP 457 Individuals with Mental Retardation (3), or
   EDP 492 Individuals with Severe Behavior Disorders and/or
   Emotional Disturbance: Social, Educational, and Legal Issues (3), or
   EDP 493 Individuals with Specific Learning Disabilities: Social, Educational, and Legal Issues (3)

Note: Not open to majors in the Department of Educational Psychology.

ENG 1 Victorian Literature and Culture.
Introduces the culture broadly defined as "Victorian" and focuses on the responses of artists, political leaders, and writers to various historical events and movements that have helped shape the 20th and 21st centuries: ideas of progress, democracy, nationalism and imperialism, religious doubt, theories of evolution and natural selection, impressionism and post-impressionism.

1. ENG 132 Life and Thought in English Literature, 1660-1900 (MPF) (3); and
2. Two courses in any order from the following:
   ENG 343 Victorian Literature, 1830-1860 (3), or
   ENG 344 Victorian Literature, 1860-1900 (3), or
   ART 486 Art of the Late 19th Century (3)

Note: Not open to majors in the Department of English. Majors in the Department of Art must select a minimum of nine hours outside their department of major.

ENG 2 Women and Literature.
Assumes the importance of gender as a category for analyzing authors and texts. Attention to how various literatures that constitute "English literature" represent women and the feminine, how these representations differ, and the various agendas pursued through these representations. Most important, emphasizes women as themselves authors and readers. Builds new knowledge of non-canonical writers and texts; reconsiders canonical writers and texts by focusing on depictions of women or your relation to women's writings.

1. WMS 201 Introduction to Women's Studies (MPF) (3), or
   ENG/WMS 368 Feminist Literary Theory and Practice (3); and
2. ENG/WMS 232 American Women Writers (3), or
   ENG/WMS 233 British Women Writers (3); and
3. ENG/AMS 390 Studies in American Regionalism: Women's Local Color Fiction (3), or
   ENG/WMS 468 Gender and Genre (3), or
   ENG 490 Special Topics in Literary Study (3)*, or
   FRE 350B The Woman-Centered Text (3), or
   SPN/WMS 180 Minority Women Writers in the U.S. (3), or
   WMS 370A Black Women Writers (3), or
   WMS 370C Lesbian Fiction (3), or
   WMS 370D Gender, Class, and Culture in 20th Century U.S. (3)

* ENG 490 topics may vary from semester to semester. Consult the sequence coordinator to see if the topic can be applied.

Note: Open to all majors. English majors must enroll in WMS for courses cross-listed with ENG.

ENG 3 American Life and Culture Since World War II.
A cross-disciplinary study of the changing forms of American culture since World War II.

1. ENG 143 Life and Thought in American Literature, 1945 to Present (MPF) (3), or
   MUS 135 Understanding Jazz, Its History and Context (MPF) (3); and
2. Two courses from the following:
   ART 489 Contemporary Art (3)
   BWS/ARC 427 The American City Since 1940 (3)
   ENG 293 Contemporary American Fiction (3)
   ENG 355 American Literature, 1945-Present (3)
   ENG/BWS 338 African American Writing, 1946-Present (3)
   HST 223 Assassinations in U.S. History (3)
   HST/AMS 367 The U.S. in the 1960s (3)
   HST 369 U.S. in the Modern Era (3)

Note: Nine hours minimum must be taken outside your department of major.

ENG 4 Film in Popular Culture.
Introduces cultural studies, specifically the analysis of contemporary popular culture. One of the central objectives is to develop analytical tools to examine how film, popular literature, and other mass media (ordinarily "taken for granted" elements of everyday life) have shaped our modern sensibility. In its very nature, the study of popular culture is interdisciplinary, examining both the text and the context of such cultural creations as mass-market literature and film.

1. FST 201 Introduction to Film History and Criticism (MPF) (3); and
2. Two courses from among the following:
   ENG/FST 220 Literature and Film (3), or
   ENG/FST 221 Shakespeare and Film (3), or
   ENG/FST 236 Alternative Traditions in Film (3), or
   ENG/FST 350A Topics in Film (3),or
   ENG/FST/WMS 350B Topics in Film (3), or
   ENG/FST 350D The Satiric Film (3), or
   ENG/FST 350I The Art Film in Italy (3), or

Note: Not open to majors in the Department of English.

ENG 5 Language and Literacy.
Uses formal reasoning skills, research and writing, and ethnographic case studies to develop a sense of the synchronic structure and diachronic background of the English language so that you understand how concepts of literacy have changed through the ages, how literacy functions in contemporary society, and how societies, schools, and communication technologies interact to shape our concepts of literacy, rhetoric, and language standards. Studies grammatical structure of modern English, social and cultural history of the language, and either rhetorical theory (COM 239) or contemporary notions of teaching writing (ENG 304). Although ENG 301 and 302 are recommended to be taken before ENG 304 or COM 239, three courses may be taken in any order.

1. ENG 301 History of the English Language (4); and
2. ENG 302 Structure of Modern English (4); and
3. ENG 304 Backgrounds to Composition Theory and Research (3), or
   COM 239 Theories of Communication (3)

Note: Not open to majors in the Department of English. Majors in the Department of Communication must select ENG 304.

ENG 6 Modernism.
Examines the intellectual and cultural movement of the late 19th and early 20th centuries commonly called modernism. In the visual arts, modernism marks the progression from natural representation to abstraction, best shown in the transition from the French impressionists to the cubists. In the literary arts, especially poetry and fiction, modernism moves from the realists and naturalists to the symbolists and imagists, and on to the fugitives and ironists. By taking these courses, you observe the significance of changes in attitude toward experience that are revealed in the transition from an external and objective outlook and expression to a more internal and subjective outlook and expression.

1. ENG 142 Life and Thought in American Literature: Civil War to World War II (MPF) (3), or
   ENG 133 Life and Thought in English Literature: 20th Century (MPF) (3); and
2. ENG 283 Modern Poetry (3), or
   ENG 345 British Modernism (3), or
   ENG 354 American Literature, 1914-1945 (3); and
3. ART 486 Art of the Late 19th Century (3), or
   ART 487 Art of the Early 20th Century (3), or
   HST 332 Age of Dictators: Europe 1914-1945 (3), or
   RUS/ENG 256 Russian Literature in Translation: From Tolstoy to Nabokov (3)

Note: Not open to majors in the Department of English. Majors in the departments of Art, History, or Russian must select a course outside their department of major at the third level.

ENG 7 The Romantic Era.
Through methods and perspectives of at least two disciplines, introduces the culture characterized as "romantic," which emerged in the later 18th century, flourished in the early 19th century, became domesticated in the Victorian era, was repressed by the modernists, revived by the counterculture of the 1960s, and newly historicized by post-modernists. Focuses on the response of artists and writers to economic, political, and social change (particularly change resulting from industrialism and revolution) and the role of artists and writers in shaping that change. Begin with ENG 132 or RUS 255, and then take two of the remaining courses from at least two disciplines.

1. ENG 132 Life and Thought in English Literature, 1660-1901 (MPF) (3), or
   ENG/RUS 255 Russian Literature from Pushkin to Dostoevsky in English Translation (MPF) (3); and
2. Two courses from at least two disciplines from the following:
   ENG 339 Writers: Early Romantic Period (3), or
   ENG 342 Writers: Later Romantic Period (3), or
   ART 485 Art of the Early 19th Century (3), or
   POL 303 Modern Political Philosophy (4)

Note: Nine hours minimum must be taken outside your department of major.

ENG 8 African American History and Literature.
Provides a sustained encounter with the African American experience from the arrival of African Americans to North America through their contemporary cultural and literary accomplishments.

1. BWS 151 Introduction to Black World Studies (MPF) (4); and
2. Two from the following:
   BWS/ENG 336 African American Writing, 1746-1877 (3)
   BWS/ENG 337 African American Writing, 1878-1945 (3)
   BWS/ENG 338 African American Writing, 1945 to Present (3)
   BWS/HST 221 African American History (3)
   ENG 355 American Literature, 1945-Present (3)

Note: Not open to majors in black world studies. English and history majors must complete courses outside their department of major.

ENG 9 Writing for Specialized Audiences: Print and Online Design and Composition.
Provides an introduction to theory, principles, genres, tools, and practices for those who wish to increase their expertise in professional writing. Through practice and community-based projects, the sequence develops the student's ability to analyze audiences, design communications to achieve specific goals, test these communications with users, and produce the documents in digital or print media. The first two courses stress visual design and preparing texts for production; students may then choose 413/513 or 414/514, depending on whether they are interested in genres that report on past activities, request resources, or document processes.

Take one course from each tier.

1. English 411/511 Visual Rhetoric for Technical and Scientific Communicators (3); and
2. ENG 412/512 Editing for Technical and Scientific Communicators (3); and
3. ENG 413/513 Writing Reports and Proposals (3), or

ENG 414/514 Designing and Testing User Documents for Technical and Scientific Communicators (3)

ESP 1 Entrepreneurship in Different Contexts.
Emphasizes the application of entrepreneurial attitudes and behaviors in organizations of all sizes and types. Students explore the underlying nature of entrepreneurship and the entrepreneurial process and develop an appreciation for the unique aspects of entrepreneurship depending upon the context within which one is operating. The first course examines the role of creative thinking in coming up with new, entrepreneurial ideas and solving business problems; the second explores the interface between entrepreneurship and a particular functional area; the third is concerned with entrepreneurship in a larger, established organizational context.

1. ESP 311 Entrepreneurial Marketing (3); and
2. ESP 366 Imagination and Entrepreneurship (3); and
3. ESP 469 Entrepreneurship in Complex Organizations (3)

Note: Not open to majors in business.

FRE 1 French Cultural Studies.
Explores cultural questions in a French context and how cultural productions can preserve or change social institutions. Provides a continuing analysis of how cultural productions interconnect with specific contexts: historical, aesthetic, social, political, economic, ethnic, racial, gender-related. Prerequisite: FRE 202 Intermediate French (MPF) (3). For students planning to take the French Capstone.

1. FRE 310 Texts in Context (3); and
2. FRE 411 or FRE 411W French Civilization (4); and
3. FRE 341 or FRE 341W French Conversation and Current Events (3), or
   FRE 350 Topics in French Literature in Translation (3), or
   FRE 366 French Cinema in Translation (3), or
   FRE 431 Studies in Contemporary French Thought in Translation (3), or
   FRE 460 Topics in French Cinema Study (3)

Note: Not open to majors in the Department of French and Italian.

FRE 2 French Cultural Studies.
Students planning to take a Capstone in another department may take any three of these courses, although FRE 310 (or FRE 301 or the equivalent) is a prerequisite for FRE 411.

FRE 310 Texts in Context (3), or

FRE 341 or FRE 341W French Conversation and Current Events (3), or

FRE 350 Topics in French Literature in Translation (3), or

FRE 366 French Cinema in Translation (3), or

FRE 411 or FRE 411W French Civilization (4), or

FRE 431 Studies in Contemporary French Thought in Translation (3), or

FRE/FST 460 Topics in French Cinema Study (3)

Note: Not open to majors in the Department of French and Italian.

FRE 3 European Cinema.
Explores, questions, and seeks to provide a cross-cultural understanding of the historical, ideological, artistic, and social issues that inform European culture through a critical analysis of the major films of countries that have played an important role both in the birth and development of cinematic art and in shaping the modern world: France, Germany, Italy, and the Soviet Union.

1. FST 201 Introduction to Film Criticism and History (MPF) (3), or
   ITS 201 Introduction to International Studies (MPF) (3)
2. Two from the following:
   FRE/FST/GER 265 European Jewish Cinema (3)
   FRE/FST 366 French Cinema in Translation (3)
   FRE/FST 460 Topics in French Cinema Study (3)
   FST/ITL 262 Italian Cinema (3)
   FST/RUS 272 Cultures and Identities of Eastern Europe: An Introduction through Literature and Film (3)
   GER/FST 261 German Cinema (3)
   RUS/FST 263 Soviet and Post-Soviet Russian Cinema (3)

Note: Nine hours minimum must be taken outside your department of major.

FSW 1 Services and Supports for Children, Youth, and Families.
Diversity is increasing among children, youth, families, and their community contexts. A growing number of people, especially African American and Hispanic children and their families, are experiencing the challenges of poverty. Increasing numbers of children and youth are deemed "at risk" for health, social, or educational problems. Amidst increasing diversity and confronted by rapid sociocultural change, existing services and supports are often ineffective; sometimes they may harm the people they intend to serve. Sequence provides experiences and opportunities that facilitate your understanding of children, youth, and families, including their needs, problems, aspirations, and strengths. Learn about and evaluate two kinds of services and supports: (1) educative, promotive, and preventive; and (2) need and problem-oriented, as well as crisis-responsive. Experiences in social service, education, and health organizations where you "shadow" helping professionals are required. As a citizen or future helping professional, prepares you for informed advocacy on the behalf of children, youth, and families.

1. FSW/KNH 207 Services and Supports for Children, Youth, and Families I (4); and
2. FSW/KNH 208 Services and Supports for Children, Youth, and Families II (5)

Note: Open to all majors. A minimum of nine semester hours must be taken outside your department of major.

FSW 3 Families and Sexuality Across the Life Course.
Provides an overview of family functioning, from the basis of family systems across the life cycle, human sexuality issues, and family relationships in later life. Objectives are: (a) to provide basic concepts and theoretical understandings of families as systems; (b) to provide a sound background in human sexuality that may be used as a base to think about underlying issues related to human sexuality; and (c) to define and describe the family relationships of older persons and review research focusing on family relationships in later life.

1. FSW 261 Diverse Family Systems Across the Life Cycle (MPF) (3); and
2. FSW 365 Family Life Sexuality Education Across Cultures (3); and
3. FSW/GTY 466 Later Life Families (3)

Note: Not open to majors in the Department of Family Studies and Social Work.

FSW 4 Children in Families.
Explores the historical and comparative roots of families with particular attention to gender, race, and socioeconomic issues. Examines family differences and family changes over the life course within contemporary U.S. society. Provides an in-depth understanding of at least one important area of individual development (childhood or adolescent development) that affects children in contemporary families.

1. FSW 261 Diverse Family Systems Across the Life Cycle (MPF) (3); and
2. FSW 381 Parent-Child Relations in Diverse Families (3); and
3. FSW 281 Child Development in Diverse Families (4), or
   FSW 382 Infant and Toddler Caregiving and Supervision (3), or
   EDP/FSW 481 Adolescent Development in Diverse Families (3)

Note: Not open to majors in the Department of Family Studies and Social Work.

GEO 1 Urban Geography.
Applies geographic concepts to develop an understanding of the patterns, processes, and meanings of change within and among U.S. urban areas. The sequence first examines the changing distribution of economic activities and social groups. Second, the sequence is concerned with underlying processes resulting in distinctive distributions of people and activities observed in U.S. urban areas. The sequence also evaluates the problems and consequences for U.S.

cities resulting from changing economic and social geography and examines practices and policies for the planning of U.S. urban areas.

1. GEO 201 Geography of Urban Diversity (MPF) (3); and

2. Two of the following:
   GEO 451 Urban and Regional Planning (3), or
   GEO 454 Urban Geography (3), or
   GEO/BWS 455 Race, Urban Change, and Conflict in America (3), or
   GEO 459 Advanced Urban and Regional Planning (3)

Note: Not open to majors in the Department of Geography.

GEO 2 Earth's Physical Environment: Patterns and Processes.
Provides an understanding of the geographical patterns that characterize the Earth's physical environment and the processes responsible for these geographical patterns. The objectives are to study Earth's physical environment and their geographical distribution at global, regional, and local scales; to develop an understanding of the processes that connect Earth's physical subsystems, including the lithosphere, hydrosphere, biosphere, and atmosphere; and to apply concepts (e.g., systems and budgets) and geographic tools (e.g., field research, geographic information systems, and remote sensing) to the geographic analysis of a particular environment or set of environments.

1. GEO 121 Earth's Physical Environment (MPF) (4); and

2. GEO 221 Regional Physical Environments (3); and

3. BOT/GEO 431 Global Plant Diversity (3), or
   BOT/GEO 432 Ecoregions of North America (3), or
   GEO 333 Geography of Natural Hazards (3), or
   GEO 421 Climatology (3), or
   GEO 425 Hydrogeography (3), or
   GEO 426 Watershed Management (3), or
   GEO 428 Soil Geography (4)

Note: Not open to majors in the Department of Geography.

GEO 3 Geographic Change.
Applies geographic concepts to understand patterns, processes, and meaning of change in the human landscape at the global scale.

1. GEO 101 Global Forces, Local Diversity (MPF) (3); and

2. GEO 211 Global Change (3); and

3. GEO 401 Sustainable Regions (3)

   GEO/WMS 436 Women, Gender, and the Environment (3), or
   GEO 473 Development and Underdevelopment (3), or
   GEO 475 Global Periphery's Urbanization (3), or

   GEO 476 Global Poverty (3).

Note: Not open to majors in the Department of Geography.

GEO 4 Global Forces in Regional Contexts.
Applies geographic concepts to understanding patterns, processes, and underlying meaning of changes in a region's landscape.

1. GEO 101 Global Forces, Local Diversity (MPF) (3); and

2. GEO 211 Global Change (3); and

3. GEO/BWS 301 Geography of Sub-Saharan Africa (4); or
   GEO 304 Latin American Development (4); or

   GEO 307 Geography of Russia (3); or
   GEO 308 Geography of East Asia (3); or
   GEO 405 The Caribbean in Global Context (3); or

   GEO 408 Geography of the Silk Road (The Heart of Asia) (3)

Note: Not open to majors in the Department of Geography.

GER 1 Culture, Literature, and Language of German-Speaking Europe.
Explores the way in which culture and language work together as related systems of expression. Course material will be taken, wherever possible, from authentic sources. Prerequisite: GER 202.

1. GER 321 Cultural Topics in German-Speaking Europe (MPF) (3), or
   GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and U.S. (MPF) (3); and

2. GER 312 Coming of Age in German Life and Thought (3); or
   GER 311 Passionate Friendships in German Literature, Film, and Culture (MPF) (3); and

3. GER 301 German Language Through the Media (3)

Note: Not open to German majors.

GER 3 Developing Language Skills in German.
For students who have completed the first two semesters of college-level German language or the equivalent. This sequence develops speaking, listening, reading, and writing ability using a variety of materials drawn from fiction, television, film, the Internet, journalism, and memoirs. The courses draw on computer-assisted materials developed by the Miami faculty for Miami students and are characterized by small sections and substantial in-class and out-of-class interaction. Courses may not be taken credit/no-credit and must be taken in order.

1. GER 201 Second Year German (3); and

2. GER 202 Second Year German (3); and

3. GER 301 German Language Through the Media (3)

Note: Not open to German majors.

GLG 1 Oceanography.
Provides an appreciation of the critical importance of the oceans to the functioning of our planet. Oceans dominate the surface area of the Earth, and they are critical to the maintenance of a habitable planet. Examines what we know about the oceans and how the oceans are an integral part of the Earth's ecology. Explores, first hand, the ways that we study the oceans.

1. GLG 111 Dynamic Earth (MPF) (3), or
   GLG 121 Environmental Geology (MPF) (3), or
   GLG 141 Geology of National Parks (MPF) (3); and

2. GLG 244 Oceanography (3); and

3. GLG/LAS/IES 413 Tropical Marine Ecology (5), or
   GLG 414 Coastal Ecology of the Bahamas (5)

Note: Not open to majors in the Department of Geology.

GLG 2 The Water Planet.
Provides an introduction to the essential role water plays in supporting life on Earth, including the origin of water, its physical/chemical characteristics, how these characteristics combine to make life possible on the continents and in the oceans, and details concerning the hydrologic cycle. Introduces the economic, legal, and political ramifications of water use in the U.S.

1. GEO 121 Earth's Physical Environment (MPF) (3), or
   GLG 111 The Dynamic Earth (MPF) (3), or
   GLG 121 Environmental Geology (MPF) (3), or
   GLG 141 Geology of National Parks (3); and

2. GLG 244 Oceanography (3); and

3. GEO 425 Hydrogeography (3), or
   GLG 307 Water and Society (3), or
   GLG 408 Introduction to Hydrogeology (4), or
   ZOO 463 Limnology (3)

Note: Not open to majors in the Department of Geology. Majors in the departments of Geography and Zoology must select a minimum of nine hours outside their department of major.

GLG 3 Plate Tectonics.
Provides an overview of how plate tectonics shapes the Earth, including the creation of landforms, natural hazards, and economic reservoirs. Examines the physical principles underlying movement of the Earth's surface and the impact on rock types, chemistry, fabric, and layering. Also demonstrates how local studies can provide insight into global processes.

1. GLG 111 Dynamic Earth (MPF) (3), or

   GLG 121 Environmental Geology (MPF) (3), or
   GLG 141 Geology of National Parks (MPF); and

2. GLG 261 Geohazards and the Solid Earth (3), or

   GLG 301 Sedimentology and Stratigraphy (4); and

3. GLG 322 Structural Geology (4), or

   GLG 461 Geophysics (3), or

   GLG 467 Seismology (3), or

   GLG 492 Global Tectonics (4)

Note: Not open to majors in the Department of Geology.

GTY 2 Aging in Diverse Contexts.
A significant paradigm shift has occurred within gerontology. The accumulation of research findings suggests that age alone predicts very little about the human experience. Instead, the impact of age and aging is mediated by a range of social and cultural factors. Social characteristics such as gender, race, and ethnicity, and societal factors such as economic development and cultural traditions combine to produce a diverse range of experience and patterns of aging. This thematic sequence begins with an overview of the social, cultural, and personal experiences of aging. The second course provides students with grounding in sociocultural analyses of the contexts of aging, and the third, an in-depth exploration of the sources of variation in the aging experience. Students completing this sequence will understand the ways in which meanings and experiences of aging are shaped by social and physical location, and the ways in which diversity among the older population is produced.

1. GTY 154 Aging in American Society (MPF) (3); and
2. GTY 260 Global Aging (3), or
   SOC/GTY 318 Sociology of Aging (3); and
3. ATH/GTY 476 Environment and Aging (3)
   FSW/GTY 466 Later Life Families
   GTY/SOC/WMS 463 Gender and Aging (3), or
   GTY 472 Minority Aging (3), or

Note: Not open to majors in Sociology or Gerontology.

GTY 3 Health and Aging.
This thematic sequence explores health and aging. The tier 1 course provides students with an overview of the process of aging, especially in the United States. In tier 2, students select one of two courses, each examining health and aging from a different position along a continuum that ranges from micro- to macro/meso-level contexts. The tier 3 courses offer students the opportunity to integrate academic and applied aspects of health and aging, either through exploration of moral issues in health care, secondary data analysis, or a field experience in a health care setting.

1. GTY 154 Aging in American Society (MPF) (3), and
2. GTY 356 Biopsychosocial Aspects of Health and Aging (3), or
   GTY/SOC 357 Medical Sociology (3), or
   GTY 335 Disability and Aging (3), and
3. GTY 430 Field Experience in Gerontology (3), or
   GTY 478 Racial/Ethnic Disparities in Chronic Illness (3), or
   PHL 375 Moral Issues in Health Care (3)

Note: Not open to majors in sociology and gerontology. Philosophy majors may not enroll in PHL 375.

HST 1 Medieval Studies.
Seeks to enhance your knowledge of and appreciation for the history, art, and literature of the medieval period, as well as establish a full cultural context on which you can build an understanding of more recent history.

Select two courses from the following:

ART 313 Early Christian, Byzantine, and Islamic Art (3), or

ENG 327 Medieval Literature (3), or

HST 345 Survey of Medieval History from 1000 (3)

And one course from the following:

ART 480M Special Topics in Medieval Art (3), or

ART 480W Feminist Art Histories (3), or

ARC 405G Seminar on Gothic Architecture (3), or

HST 346 Medieval Jewish History (3); or

HST 451 Social History of Medieval Europe (3), or

ENG 440 Major English and American Authors (3)*

* ENG 440 topics may vary from semester to semester. Consult with the sequence coordinator or the Office of Liberal Education to see if the topic can be applied.

Note: Majors in architecture, German, art, English, history, and Spanish must select a minimum of nine hours of courses outside their department of major.

HST 2 Women and Gender in History.
Studies the construction and nature of gender roles with particular emphasis on women, in a variety of historical contexts, places, cultures, and socioeconomic and political conditions. Encourages thought about whether there are any universal themes and questions regarding gender roles that transcend particular circumstances. Select three courses from these options:

ART 480M Special Topics in Medieval Art (3)

ART 480W Feminist Art Histories (3)

CLS 235 Women in Antiquity (3)

HST/WMS 381 Women in Pre-industrial Europe (3)

HST/AMS/WMS 382 Women in American History (3)

HST 383 Women in Chinese History (3)

HST/AMS 392 Sex and Gender in American Culture (3)

HST/WMS 450 Topics in Women's History (3)

REL 334 Women's Religious Experiences in the Mediterranean World (3)

Note: Not open to majors in the Department of History. Majors in the departments of Art, Classics, and Comparative Religion must select a minimum of nine hours outside their department of major.

HST 3 Russian, East European and Eurasian Studies (cross-listed with POL 7).
This Thematic Sequence examines Russian, East European and Eurasian history and politics from a multidisciplinary perspective. The Sequence allows students to study the history and politics of Russia and the former Soviet republics, from medieval times to today. Drawing from a range of disciplines and approaches, students have the opportunity to explore historical patterns, and political movements and parties from the 10th century to present. By considering this interaction, students gain meaningful insights into the development of this region as well as acquiring useful perspectives on western society. Because many of these courses are cross-listed, students from many different majors will be able to take the sequence by enrolling in the course through a department other than their major. Take one course from each tier.

1. REL/HST/RUS 133 Imagining Russia (2), or
   ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3); and
2. ATH/GEO/RUS 306 Peoples & Cultures of Russia (3), or
   HST 324 Eurasian Nomads and History (3), or
   HST 374 Russia to 1855 (3), or
   HST 375 Russia and the U.S.S.R. from 1855 to the Present (3), or
   HST 428/528 Russia's War and Peace (3), or
   REL 235 Religions of Russia and Eurasia (3), or
   POL 331 Development of the Russian Polity (3); and
3. ATH 384 Anthropology of Capitalism: Russia (3), or
   GEO 307 Geography of Russia (3), or
   POL 328 Politics of Central Asia (3), or
   POL 332 Post-Soviet Russian Politics (3), or
   POL 334 Politics of Eastern Europe (3), or
   ITS 402O Transition to Democracy (3), or
   GEO 408/508 Geography of the Silk Road (The Heart of Asia) (3), or
   HST 470G/

IMS 4 Perspectives on Interactive Media.
This sequence will develop the student's theoretical and hands-on understanding of the nature of digital development. Interactive media expertise requires a broad understanding of the perspective brought by a variety of disciplines. The courses included in the sequence are designed to supplement a traditional disciplinary major for a student interested in how Interactive Media informs their chosen field.
This sequence allows the student to broaden their Interactive Media expertise, developing a particular interest and then applying it through a choice of one of three course "buckets" or tracks.

1. Take one of the following courses:

IMS 201 Information Studies in the Digital Age; or
CSE 251 Game Programming for Non-Majors; or
CSE 252 Introduction to Web Programming;
ENG/IMS 238 Narrative and Digital Technology; or
ENG/IMS 224 Digital Writing and Rhetoric; or
ART 256 Design, Perception and Audience; and

2. Take two courses in any one of the following Specialization Tracks:

A. Commercialization
IMS 333 e-Enterprising; or
MKT 419 eCommerce, Marketing, and the Internet; or
IMS 310 Usability and Digital Media Design; or
COM 211 Introduction to Electronic Media; or
MGT 311 Project Management; or
BLS 437 Cyberlaw; or
IMS 390.C Topics in IMS: Implementation

B. Interpretation
ENG/IMS 171 Humanities and Technology; or
ENG/IMS 238 Narrative and Digital Technology; or
ENG/IMS 224 Digital Writing and Rhetoric; or
ENG 411 Visual Rhetoric; or
IMS 390.I Topics in IMS: Interpretation

C. Simulation
IMS 319 3D Modeling and Animation; or
IMS 445 Game Design; or
ARC 404.Y Mind and Medium; or
IMS 390.S Topics in IMS: Simulation

D. Visualization
IMS 356 Flash Animation; or
IMS/ART 259 Aesthetics and Computation; or
IMS/ART 359 Actionscripting; or
MIS 245 Database Systems; or
IMS 390.V Topics in IMS: Visualization

Note: IMS-4 is open to all majors, but students must complete 9 hours of coursework outside their department of major.

ITL 1 Italy in the Renaissance.
Analyzes the vital role Italy has played in the birth and evolution of modern Western culture in the humanities, arts, sciences, and political thought. Develops analytical skills by viewing Italian culture from a variety of disciplinary angles and over a broad span of time. Promotes a critical understanding of the rich artistic, literary, and intellectual heritage of the culture that laid the foundation for the European Renaissance and the modern period.
Select three of the following courses in any order:

ART 314 Italian Renaissance (3)

ENG/ITL 364 From Marco Polo to Machiavelli (3)

ENG/ITL 401 Dante's Divine Comedy (3)

HST 315 The Renaissance (3)

HST 452 Florence in the Time of the Republic 1250-1550 (3)

Note: Nine hours minimum must be taken outside your department of major.

JPN 1 Developing Language Skills in Japanese.
For students who have completed the first two semesters of college-level Japanese language or the equivalent. This sequence develops speaking, listening, reading, and writing ability using a variety of materials drawn from fiction, television, film, the Internet, journalism, and memoirs. The courses draw on computer-assisted materials developed by Miami faculty for Miami students and are characterized by small sections and substantial in-class and out-of-class interaction. Courses may not be taken credit/no-credit and must be taken in order.

1. JPN 201 Second Year Japanese (3)

2. JPN 202 Second Year Japanese (3)

3. JPN 301 Third Year Japanese (3)

JST 1 Jewish Studies
Emerging in the ancient Middle East, the Jewish people developed a distinctive culture and tradition, first as an independent body-politic and later as a minority population in the Diaspora. Throughout history, the Jewish people have utilized their ancestral customs – i.e. Judaism – to maintain a living identity. This Thematic Sequence focuses on the history of Jewish communities in a variety of contexts in order to discern how Jews maintained their identity while partaking of and contributing to the non-Jewish world. These classes examine secular and religious Jewish cultures in Europe, America, north Africa and Asia from ca. 600 B.C.E. until today.

This sequence is open to all majors, but students must take only courses outside their department of major.

A student may take only one of the Foundation course for credit in the sequence. Thus, only one of the following courses may be taken: REL175; REL211; GER252 and FRE/GER/RUS212/HST211.

1. Ancient and Medieval: One of the following courses:
CLS310.J Jews Among the Greeks and Romans; or
HST346 Medieval Jewish History; or
HST442 Ancient Jewish History, 539 BCE-200CE; or
REL175* Critical Study of Biblical Literature; or
REL211* Introduction to the Religion of Ancient Israel; or
REL311 Archaeology and Biblical Studies; and

2. Modern: One of the following courses:
ENG234 Jewish American Fiction; or
ENG/FST/GER265 European Jewish Cinema; or
ENG/FRE/GER 356 Contemporary Jewish Fiction in Europe; or
FRE/GER/RUS212/HST211* Secular Jewish Culture from Enlightenment to Zionism; or
FRE/HST339 Jews, "Jews," and Modern French Culture; or
FST/RUS272 Cultures and Identities of Eastern Europe: An Introduction Through Literature and Film; or
GER252* The German-Jewish Experience; or
HST472 Germany 1918-1945; and

3. Take one additional course from either 1 or 2.

KNH 1 Biophysical Health Across the Life Span.
As one ages, the body changes in physical appearance, health, and ability to perform, usually in a negative way. Certain aspects of the aging body are regulated by factors beyond our control (e.g., genetics); however, lifestyle (e.g., nutrition, exercise) from birth to adulthood influences biophysical health to a large extent. Learn how biophysical health can be improved, maintained, or impaired by factors beyond and within one's control over time. Explore reasons for the systematic patterns of the unequal distribution of health and health services among persons of different age, gender, socioeconomic status, and culture.

1. KNH 188/188L Exercise and Health (MPF) (3,1); and

2. KNH 297 Children's Exercise and Fitness (3), or
KNH 407 Food and Nutrition for the Aging (3), or
KNH 408 Perinatal and Child Nutrition (3); and

3. NSG 441 Health and Aging: Current Perspectives and Issues (3)

Note: Not open to majors in the Departments of Kinesiology and Health or Nursing.

LAS 1 Modern Latin American Development.
Focuses on broadly defined development in Latin America from the 19th century forward from a central socio-political perspective, and allows students to assess the dynamic nature of political and economic institutions from historical, political, and geographic perspectives. LAS 208, a broad survey course, is recommended to be taken first; however, these courses may be taken in any order as long as nine or more credit hours are completed.

GEO 304 Latin American Development (4)

LAS 208 Latin American Civilization (MPF) (3)

LAS 410 Current Latin American Issues (1)

LAS/IES 414 Latin American Environmental Affairs (3)

POL 337 Politics of Latin America (4)

Note: Nine hours minimum must be taken outside your department of major.

LAS 2 People and Power in the Americas.
Provides an interdisciplinary treatment of some of the major social and political issues confronting the Americas now and in the 21st

century. Examines the relations and differences between the U.S. and Latin American and Caribbean societies, characterizes and contrasts world views from various social groups across the Americas, explores social conflict within and between countries of the Americas, and addresses such critical issues as human migration and economic integration. Courses are recommended to be taken as listed below; however, three courses may be taken in any order.

ATH 305 Peoples and Cultures of Latin America (3)

GEO 405 The Caribbean in Global Context (3)

LAS 208 Latin American Civilization After 1825 (MPF) (3)

POL 326 Comparative Ethnic Policy (3)

POL 378 Latin America: The Region and the World (3)

Note: Not open to majors in the Department of Political Science. Majors in anthropology or the Department of Geography must select a minimum of nine hours outside their department of major.

LED 1 Urban Culture and Service Learning.
Courses selected for the Xavier University/Miami University collaboration are determined each time it is offered. Courses will emphasize urban study, drawing from political science, sociology, economics, geography, architecture, history, education, and programs in black world studies, urban studies, American studies, and women's studies. The sequence will have courses grouped in three interrelated tiers: (1) practical experience based in service learning; (2) theoretical investigation of urban issues and policy; and (3) special topics that allow for deeper investigations of issues pertaining to Cincinnati and Over-The-Rhine. Contact: Tom Dutton in the Department of Architecture.

MBI 1 Biomedical Science.
Examines principles and examples of diseases caused by microbial infections so that the role of microorganisms in the development of disease in a human host can be understood. Studies the host at genetic or cell and tissue level to gain an overview of infectious and noninfectious diseases in populations. Fosters understanding of the effects of diseases on human communities and provides a perspective to help evaluate health dilemmas and develop strategies to solve them.

1. MBI 161 Elementary Medical Microbiology (MPF) (4); and
2. BOT/ZOO 232 Human Heredity (3), or
   ZOO 325 Pathophysiology (4); and
3. MBI 361 Epidemiology (3)

Note: Offered only on the Hamilton and Middletown campuses. Not open to majors in the Departments of Microbiology or Zoology.

MBI 2 Molecular Genetics.
Provides an understanding of the basic microbiology principles that have provided the foundation for the development of the science of molecular genetics. Shows how the application of molecular genetics has had a significant impact on health, bioremediation, and agriculture, to name a few examples.

1. MBI/BOT/ZOO 116 Biological Concepts: Structure, Function Cellular and Molecular Biology (MPF) (4); and
2. MBI 201 General Microbiology I (4); and
3. MBI 365 Molecular and Cell Biology (3)

Note: Not open to majors in the Department of Microbiology.

MGT 1 Dynamics of Human Behavior in Organizations.
Regardless of major, most students apply the knowledge and skills they acquire at Miami University within an organizational setting. Organizations form to benefit from collective efforts of individuals who are striving to accomplish a set of common goals. This sequence examines ideas, models, and theories that explain human behavior in organizations. Builds competence in critically analyzing factors that influence both human behavior and the capacity for the organization to achieve its objectives; then you are able to influence work behavior and effectively exercise a leadership role in the organizations you join.

1. MGT 291 Organizational Behavior and Theory (3); and

Both of the following, in any order:

2. MGT 414 Motivation and Work (3); and
3. MGT 415 Leadership and Learning (3)

Note: Not open to majors in business.

MIS 1 Information Management, Technology, and the Role of Electronic Commerce.
Emphasizes the critical role of information and decision-making within a distributed Internet environment and enables students to develop a proficiency in the management evaluation and development of information systems that promote and implement electronic commerce technology. The sequence provides depth of course work in management information systems emerging applications and technology and focuses on technology management and adoption issues by organizations in order to gain a competitive advantage in the new Internet society. While the academic area of business forms the sequence's contextual orientation, technology and the applications discussed and ways of thinking and analyzing presented are applicable to a variety of organizational contexts.

1. MIS 235 Technology and the Intelligent Enterprise (3); and
2. MIS 303 Enterprise Systems (3); and
3. MIS 385 Applications of Electronic Commerce Technology (3)

Note: Not open to majors in business.

MIS 2 Applications Integration with Enterprise Systems.
Emphasizes the critical role of information resources planning, management, and/or implementation in the electronic commerce era. In specific, this sequences enables students to develop a proficiency in the management of enterprise resources planning tools, concepts, and/or techniques to increase corporations' productivity, operational efficiency, and effectiveness. Please take these courses in order.

1. MIS 235 Technology and the Intelligent Enterprise (3)
2. MIS 245 Database Systems and Data Warehousing (3)
3. MIS 303 Enterprise Systems (3)

Note: Not open to majors in business.

MIS 3 Web Mining and Knowledge Management.
Emphasizes the critical role of information management and decision-making within a wireless, distributed Internet environment and enables students to develop a proficiency in knowledge management, Internet access/retrieval, and web searching/mining of information and data that promotes and enhances the e-commerce opportunity and the digital economy. The sequence focuses on technology management, strategic evaluation, and systems adoption issues by organizations in order to gain a competitive advantage in the new Internet society and associated wireless environment. Please take these courses in order.

1. MIS 235 Technology and the Intelligent Enterprise (3)
2. MIS 245 Database Systems and Data Warehousing (3)
3. MIS 404 Knowledge Management (3)

Note: Not open to majors in business.

MKT 5 Creating Customer Value Through Marketing.
The objectives of this sequence are to: 1. Introduce students to the behavioral, sociological, psychological, and economic foundations behind marketing; 2. Create an understanding of how marketing can improve the quality of life through enlightened personal selling; and 3. Assist non-marketing majors to apply marketing concepts to a broad spectrum of personal and professional careers.

1. MKT 291 Principles of Marketing (3); and
2. MKT 325 Consumer Behavior (3); and
3. MKT 405 Creating Customer Value Through Marketing (3)

Note: Not open to majors in business.

MTH 1 Axioms, Theorems, and Proof in Geometry and Algebra.
Considers algebras and geometries defined by axiomatic systems, two very active fields in modern mathematics. Surprises are here: geometrics without parallel lines, geometrics with parallel lines and no rectangles, and new algebraic operations that can describe the structure of Rubik's cube and molecules. Develops the roles of definition, proof, and abstraction gradually until, at the 400 level, a full scale axiomatic treatment is given. At this level students provide many of the proofs. You rediscover results from the masters: Gauss, Hilbert, Galois, Abel, and others. Not an easy sequence, but you learn about how to read mathematics and solve problems on your own. Prerequisite: MTH 151 (5) (MPF) or MTH 153 (4) (MPF) Calculus I.

1. MTH 222 Introduction to Linear Algebra (3); and

2. MTH 331 Discrete Mathematics (3); and
3. MTH 411 Foundations of Geometry (3), or
   MTH 421 Introduction to Abstract Algebra (4)

Note: Not open to majors in the Department of Mathematics and Statistics.

MTH 2 Basic Mathematical Tools for Science.
Scientists today use a variety of mathematical tools, including calculus, discrete mathematics, and statistics to describe physical, biological, and social systems. This sequence helps students analyze problems from several perspectives with increasing sophistication as they progress from Calculus I through the other courses. The discrete mathematics, linear algebra, and statistics courses can be taken in any order, but all have Calculus I as prerequisite.

1. MTH 151 Calculus I (MPF) (5), or
   MTH 153 Calculus I (MPF) (4); and
2. MTH 222 Introduction to Linear Algebra (3); or
   MTH 231 Elements of Discrete Mathematics (3); or
   MTH 222T/331T Linear Algebra/Discrete Mathematics (Honors) (5); and
3. STA 301 Applied Statistics (3), or
   STA 368 Introduction to Statistics (4)

Note: Not open to majors in the Department of Mathematics and Statistics. Business majors will not receive credit for this sequence.

MTH 3 Almost Linear Structures-Models for Physical Science.
The goal is to extend the derivative and anti-derivative ideas from Calculus I and II by building on the linear function concept from MTH 222. Scientists use linear functions to model the economy, atomic structure, chemical reactions, and other phenomena. MTH 252 develops the derivative of a multivariable function as an approximating linear function, just as the graph of a function of one variable looks like a line segment near a point where the derivative exists. This allows the extension of important optimization techniques to multivariable functions. MTH 347 uses all available tools to generalize and solve antiderivative problems crucial to science. This sequence combines theory and practice and is the traditional path to upper division mathematics. MTH 222 and 252 may be taken in either order or concurrently. Prerequisite: Calculus I (MPF) and Calculus II.

1. MTH 222 Introduction to Linear Algebra (3); or
   MTH 222T/331T Introduction to Linear Algebra/Discrete Mathematics (Honors) (3); and
2. MTH 252 Calculus III (4); and
3. MTH 347 Differential Equations (3)

Note: Not open to majors in Mathematics and Statistics.

MUS 1 Performance of Music.
Study and apply music performance in solo and ensemble settings in order to examine and evaluate musical style, emotional and programmatic aspects of composition in performance, the interrelationship of instruments in larger contexts, and the involvement of personal technique, style, and emotional context. Prerequisite: Not for beginning performers. Admission only to students granted "sophomore standing" by the music department after an audition or semester-end jury following enrollment in MUS 142 or 144.

1. Three semesters minimum of private study, including at least one semester at 300-level with a prerequisite of "junior standing" granted by the music department after a semester-end jury following enrollment in MUS 242 or 244.
   Courses available:
   MUS 242, 342 (2)
   MUS 244, 344 (3-4)
2. Four hours minimum of ensemble. No more than two hours per semester may be applied. MUS 100E Marching Band cannot fulfill this requirement. You are encouraged to be involved in more than one ensemble for the duration of the sequence.
3. Juried half-recital (20 minutes of music minimum) given in your junior or senior year (0). The recital must be a lecture-recital or must have program notes written by you.

Note: Not open to majors in the Department of Music.

MUS 2 Music Composition.
Focuses on composing from selected perspectives: (1) strict models of the receding past (early 19th century), (2) traditions in the electronic music of the recent past, (3) conventional forms from the current mass media, and (4) personal models developed by the student. Students study primarily the music of Western culture and write their own compositions. Designed for students already having both experience in performance on an instrument or voice and an understanding of a basic musical language through conventional music theory studies.

1. Take two of the following:
2. MUS 301 Counterpoint (3), or
   MUS 303 Electronic Music (3), or
   MUS 304 Commercial Applications in Composing/Arranging (3), and
3. MUS 371 Composition (3)

Note: Not open to majors in the Department of Music.

MUS 3 African and African-Derived Music in the Western World.
Focuses on the development and influence of African-derived music in the western world, which includes not only North America but also the Caribbean and South America. The subject is examined from several historical as well as musical perspectives: (1) African music in the traditional context and its defining factors on the lives and culture of Western African societies and people; (2) The Atlantic slave trade and the development of African-influenced genres in the West; (3) The impact of the development of and changes in Western societies (i.e., emancipation, segregation, unemployment, etc.) and the music that results. At the conclusion of this sequence, students should be able to integrate the material covered into their knowledge of American musical and social history and have a deeper understanding of how societal structures and racial identity have affected music.

1. MUS/AMS 285 Survey of African Music in the Diaspora (3); and
2. MUS/AMS 385 The Roots of Black Music: Blues, Gospel, and Soul (3); and
3. MUS/AMS 386 History and Development of Hip-Hop Culture in America (3)

Note: Not open to majors in the Department of Music.

NSC 1 Naval Science: History of Warfare.
Examines the evolution of strategic principles and the influence of economic, psychological, moral, political, and technological factors on strategic thought. Covers the evolution of warfare from 600 B.C. to present, naval warfare from 1500 to present, and amphibious warfare from 1800 to present. Through literature, you are exposed to differing perspectives, including official records of the event, personal experiences of participants, and post-event analysis by researchers. Engage in a critical analysis of great captains, military organizations, and military theorists of history.

1. NSC 311 The Evolution of Warfare (3); and
2. NSC 202 Seapower and Maritime Affairs Seminar (3); and
3. NSC 411 Amphibious Warfare (3)

Note: Open to all majors.

NSC 2 War: An Extension of Politics.
Examines world politics, historical role played by the military in the outcome of those politics, and possible political methods to avoid future military action. Explores the complexity of world politics driven by differences in economics, population, culture, and philosophy, and studies the historical outcome of incidents where military action occurred as well as those incidents resolved without military involvement.

1. POL 271 World Politics (MPF) (4), or
   POL 387 Comparative Security Issues (3), or
   HST 219 U.S. Diplomatic History to 1914 (3), or
   HST 222 U.S. Diplomatic History Since 1914 (3); and
2. NSC 202 Seapower and Maritime Affairs Seminar (3), or
   NSC 311 The Evolution of Warfare (3), or
   NSC 411 Amphibious Warfare (3); and
3. POL 373 American Foreign Policy (3), or
   POL 374 Comparative Foreign Policies (3), or

POL 381 Global Governance (3), or
POL 382 International Law (3), or
HST 275 20th Century European Diplomacy (3), or
HST/ENG/PSY 360C Interdisciplinary Special Topics: Alternatives to War (4), or
HST 431 The U.S.-Vietnam War (3)

Note: Students must select a minimum of nine hours outside their department of major.

NSC 3 The Naval Sciences:
An Integrated Study of Naval Engineering, Navigation, and Piloting. Going to sea and surviving for extended periods of time require unique and diverse knowledge in the subject areas. Engages in a critical examination of naval engineering systems, celestial and electronic navigation, and the practice of safely piloting a waterborne vessel.

1. NSC 102 Naval Ship's Systems (3); and
2. NSC 301 Navigation I (4); and
3. NSC 302 Naval Operations and Seamanship (3)

Note: Open to all majors.

PCE 1 Chemical Engineering Principles.
Provides an understanding of basic chemical engineering principles, concepts, and methodologies and how they are applied to the design and performance analysis of industrial processes. Prerequisite: (PCE 204) grade of C- or better in CHM 141, 142; MTH 151, 251; and CSE 141 or competence in spreadsheets. (MME/PCE 313) grade of C- or better in PHY 182, and PCE 204. (PCE 403) grade of C- or better in MME/PCE 313, MTH 245, and MME/PCE 314.

1. PCE 204 Material and Energy Balances (3); and
2. EGR/PCE 313 Fluid Mechanics (3); and
3. PCE /MME 403 Heat Transfer (3)

Note: Not open to majors in the Department of Chemical and Paper Engineering. Majors in the Department Manufacturing Engineering must take PCE 313 at the second level.

PHL 1 Ethics.
Develops insight and expertise in dealing with ethical matters that you are likely to confront in your personal and professional life beyond the university.

1. PHL 131 Problems of Moral and Social Values (MPF) (3); and
2. Select two of the following:
   PHL 312 Contemporary Moral Problems (4); or
   PHL/WMS 355 Feminist Theory (4), or
   PHL/ENG/PSY/REL 360A Confronting Death (4), or
   PHL 375 Moral Issues in Health Care (4), or
   PHL 376 Environmental Philosophy (4)

Note: Not open to majors in the Department of Philosophy. Students must select nine hours outside the department of major.

PHL 4 Metaphysics and Epistemology.
Presents a range of philosophical outlooks and methods regarding the fundamental questions: what is real and how do we know it? Explores these questions as they are manifested in the history of philosophy.

1. PHL 101 Knowledge of World, God, and Morality (MPF) (3), or
   PHL 104 Purpose or Chance in the Universe (MPF) (3), or
   PHL 105 Theories of Human Nature (MPF) (3); and
2. PHL 221 Problems of Metaphysics and Knowledge (3); and
3. PHL 301 Ancient Philosophy (4), or
   PHL 302 Modern Philosophy (4)

Note: Not open to majors in the Department of Philosophy.

PHL 5 Reasoning.
Focuses on the fundamental aspects of logic, as manifested in thought and language. Shows that reasoning occurs in both formal and interpretive modes and that principles exist for the analysis and evaluation of reasoning in these modes. The emphasis is on developing skill in the application of such principles and on an appreciation of the overall scope of logic.

1. PHL 273 Formal Logic (MPF) (4); and
2. PHL 263 Informal Logic (4); and
3. PHL 373 Symbolic Logic (4)

Note: Not open to majors in the Department of Philosophy.

PHY 1 The Physical World: Contemporary Physics.
Option One-experimental emphasis, stresses experimental, hands-on experience in the laboratory. Option Two-theoretical emphasis, stresses modeling and simulation approaches to problem solving. Extends the basic foundation in the broad area of physics developed in "The Physical World." Provides in-depth developments of topics in modern and contemporary physical science. The goal is to provide a level of understanding and skills in contemporary scientific methodology to enable further study in the sciences or to provide a substantial technical background for a future career.

1. PHY 182, 184 The Physical World II and Laboratory (MPF) (4,1); and
2. PHY 291, 293 Contemporary Physics and Laboratory (4, 2); and
3. Experimental Option: PHY 292, 294 Electronic Instrumentation (3, 2), or
   Theoretical Option: PHY 286 Introduction to Computational Physics (3)

Note: Although laboratory sections are listed as separate courses in this Bulletin, they are integral co-requisites to the companion courses. Not open to majors in the Department of Physics.

PHY 2 Your Place In the Universe.
For untold generations, humans have gazed at the stars, planets, and cosmos, and asked what is it all, and how do I fit in? This sequence attempts to address this timeless, universal, and totally human question from the viewpoint of modern science. The Foundation course provides an overview of our present understanding of the universe and some insight as to how we came to such an understanding. The second course addresses the crucial question, how do we know what we claim to know? Here, the observational foundation of our theories is examined in detail. The final course addresses several topics from astronomy that currently are without explanation.

1. PHY 111 Astronomy and Space Physics (MPF) (3); and
2. PHY 211 Observational Foundations of Astronomy (3); and
3. PHY 311 Contemporary Astronomy (3)

Note: Not open to majors in the Department of Physics.

POL 1 Comparative Analysis of Foreign Policy.
Explores the study and substance of foreign policy. The sequence begins by analyzing the broader international and theoretical contexts of foreign policy, then moves into finer analysis of particular issues confronting national governments in the construction and pursuit of their foreign policy objectives. Completes the sequence with a country or region-specific course that examines in greater detail theories, contexts, and issues explored in earlier courses.

1. POL 271 International Politics (MPF) (4); and
2. POL 374 Comparative Foreign Policies (3), or
   POL 387 Comparative Security Issues (3); and
3. POL 373 American Foreign Policy (3), or
   POL 375 International Relations of East Asia (3), or
   POL 376 U.S. National Security Policy (3), or
   POL 378 Latin America: The Region and the World (3)

Note: Not open to majors in the Department of Political Science.

POL 3 National Political Institutions.
Enables you to understand the political system in which you live, how it operates or fails to do so, where and how citizen influence is applied, and how to assess proposals for reform. Take POL 141 first, then select three additional courses from the options listed. Sequence of four courses.

1. POL 141 The American Political System (MPF) (4); and
2. Select three from these:
   POL 343 American Presidency (3)
   POL 344 U.S. Congress (3)
   POL 352 Constitutional Law and Politics (4)
   POL 356 Mass Media and Politics (3)

Note: Not open to majors in the Department of Political Science.

PSY 1 Perspectives on Psychopathology.
Uses a psychological perspective to consider the personal and interpersonal experience of psychopathology and to analyze the impact of psychopathology on society as a whole. Begins with a general examination of individual and social psychopathology and builds toward in-depth exploration of selected specific individual or social issues related to psychopathology. Prerequisite: PSY 111 Introduction to Psychology (MPF) (4).

1. PSY 242 Abnormal Psychology (3); and
2. PSY 343 Psychopathology (3); and
3. PSY 345 Childhood Psychopathology & Developmental Disabilities (3)

Note: Not open to majors in the Department of Psychology.

PSY 2 Patterns in Human Development.
Throughout life, our thoughts, feelings, and behaviors change. How does our biological makeup interact with our physical and social surroundings to contribute to our actions and abilities? A scientific approach to developmental psychology requires us to think critically in examining theories and research and to understand the contexts in which we develop and the contexts in which theories and research are conducted. Engage with other learners as you reflect on ideas about why we develop the way we do. Such reflection provides an informed basis for acting on issues affecting children, youth, families, and elders. Prerequisite: PSY 111 Introduction to Psychology (MPF) (4), or EDP 101 Critical Issues in the Psychology of the Learner (MPF) (3).

1. PSY 231 Developmental Psychology (3); and
   The second and third courses must be selected in order of their position in the life span, as follows:
2. PSY 332 Child Development (3), or
   FSW 281 Child Development in Diverse Families (3); and
3. PSY 333 Adolescent Development (3), or
   FSW/EDP 481 Adolescent Development in Diverse Families (3) **OR**

1. PSY 231 Developmental Psychology (3); and
2. PSY 333 Adolescent Development (3), or
   FSW/EDP 481 Adolescent Development in Diverse Families (3); and
3. PSY 334 Adulthood and Aging (3)

Note: Not open to majors in the Department of Psychology. Majors in the Department of Educational Psychology and Department of Family Studies and Social Work must choose a minimum of nine hours outside their department of major.

PSY 4 Developmental Patterns in Adulthood.
Throughout life, our thoughts, feelings, and behaviors change. Adulthood and aging are a culmination of lifespan development. How does our biological makeup interact with our physical and social surroundings to contribute to our actions and abilities? A scientific approach to the study of aging requires us to think critically in examining theories and research and to understand the contexts in which we develop and the contexts in which theories and research are conducted. *Prerequisite:* PSY 111 Introduction to Psychology (MPF) (4), or EDP 101 Critical Issues in the Psychology of the Learner (MPF) (3).

1. PSY 231 Developmental Psychology (3); and
2. PSY 334 Adulthood and Aging (3); and
3. BWS/GTY 472 Minority Aging (3), or
   GTY/FSW 466 The Family in Later Life (3), or
   KNH 471 Sport, Leisure, and Aging (4), or
   SOC/GTY/WMS 463 Gender and Aging (3)

Note: Not open to majors in the Department of Psychology. Majors in the Departments of Educational Psychology, Kinesiology and Health, and Sociology and Gerontology must select a minimum of nine hours outside their department of major.

PSY 5 Cognition: Understanding and Improving Thought.
Offers opportunity to reflect upon reasoning, those processes used to create, maintain, modify, and evaluate beliefs about the world. Begins by introducing the study of cognition within the discipline of psychology; the second course emphasizes specific cognitive processes (e.g., language) and methods and theories associated with their study; the third course offers an in-depth analysis of current theories and methods of studying cognition within a circumscribed topic area.

1. PSY 271 Cognition (3); and
2. PSY 372 Learning and Cognition (4), or
   PSY 374 Psychology of Language and Thought (3); and
3. PSY 470 Seminar in Cognition (3); or
   PSY 471 Spatial Cognition (3)

Note: Not open to majors in the Department of Psychology.

REL 1 Religion and American Life.
Acquaints you with fundamental themes in the relationship between religion and society, as exemplified in the development of American religious pluralism in theory and practice, as well as in the impact of religious themes in the development of an American cultural identity.

1. REL 101 American Religious Encounters (MPF) (3), or
   REL 102 Religion and Modern Culture (MPF) (3), or
   REL 103 Religion, History and Society (MPF) (3); and
2. AMS/REL 241 Religions of the American Peoples (4), or
   AMS/REL 242 Religious Pluralism in Modern America (4); or
   AMS/REL 245 Women, Religion, and Social Change in America (4); and
3. AMS/REL 341 Protestantism and the Development of American Culture (4), or
   AMS/REL 442 Religion, Society, and Culture in New England (4), or
   REL/BWS 343 African American Religions (4); or
   REL/AMS 445 Issues in the Study of Native American Religions (4)

Note: Not open to majors in the Department of Comparative Religion.

REL 2 The Historical and Comparative Study of Religion.
Uses the approach of the history of religions to provide perspective continuity and depends heavily on the study and interpretation of classical foreign-language texts in English translation, while using case studies, surveys, and field reports. Unlike some sequences in the humanities that concentrate on religious ideas and doctrines, this sequence utilizes categories developed from the field of comparative religion to acquaint students with the diversity of religious phenomena. Emphasizes the importance of studying religion in a comparative and global context; allows a choice of emphasis of either major Eastern or Western religious traditions, at the second level.

1. REL 101 American Religious Encounters (MPF) (3); and
2. REL 202 Religions of Asia (3), or
   REL 211 Religions of the Hebrew Bible (3); and
3. REL 302 Methods for the Study of Religion (4)

Note: Not open to majors in the Department of Comparative Religion.

REL 3 Religion and Philosophy of Buddhist Asia.
Seeks to give students a firm grounding in the patterns of thought, symbolism, and behavior originating in and associated with Buddhism. Students follow the path of Buddhism from its birth in Upanishadic India to its function as a bridge culture knitting together much of Asia.

1. PHL 106 Thought and Culture of India and South Asia (MPF) (3); and
2. REL 323 Buddhism in India and South Asia (3); and
3. REL 324 Buddhism in China, Korea, and Japan (3)

Note: Not open to majors in the departments of Philosophy or Comparative Religion.

REL 5 Jewish Civilization Through History.
Acquaints students with the history of the Jewish people through their religious culture, social ideas, and political institutions; helps students understand the distinctive forms of Jewish ethnic self-identity as they have developed through history; and helps students appreciate both the positive and negative aspects of the interaction of Jews with Christians and Muslims in a variety of geographical and cultural settings.

1. HST 346 Medieval Jewish History (3); or
   REL 211 Religions of the Hebrew Bible (3), or
   REL 213 Social and Religious History of the Jewish People (MPF) (3); and
2. Two of the following:
   REL 385 The Religious Roots of Anti-Semitism (3), or
   REL 388 Jerusalem: The Meeting of Jews, Christians, and Muslims in the Holy City (3), or
   REL 465 The Holocaust (4), or
   REL 475 Judaism in Modern Israel (4)

Note: Not open to majors in the Department of Comparative Religion.

RUS 1 Russia and the Soviet Union.
Examines Russian culture, society, and politics from an interdisciplinary perspective, including major Russian literary works, historical patterns, and political leaders and parties from the 10th century to the present. By considering this interaction, you gain meaningful insights into the development of Russia as well as acquire useful perspectives on Western society.

1. RUS/ENG 255 Russian Literature from Pushkin to Dostoevsky in English Translation (MPF) (3), or
   RUS/ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3); and
2. HST 374 Russia to 1855 (3), or
   HST 375 Russia and the USSR from 1855 to the Present (3); or
   HST 470 Topics in Russian History (3); or
   HST 475 Images of Russia At Home and Abroad: 16th Century to Present (3); and
3. POL/RUS/HST 230 Topics in Russian Culture and Civilization (3); or
   POL 331 Development of the Soviet Polity (3), or
   POL 332 Post-Soviet Russian Politics (3), or
   POL 430B Political Systems of Russia and Eastern Europe (4)

Note: Not open to Russian majors or majors in the Departments of History or Political Science.

RUS 2 Russian Culture.
Examines Russian culture from the point of view of artistic media, including major literary works, films, and varieties of folkloric expression. Russian folklore, film, and literature often explore some of the same issues, central to the society they reflect, like rebellion and revolution, alienation and the creation of a community, and the intricacies of social and sexual relationships. Through the study of diverse elite and popular approaches to these topics, you gain an appreciation of some pervasive Russian attitudes and concerns.

1. RUS 137 Russian Folklore (MPF) (3), or
   RUS/ENG 255 Russian Literature from Pushkin to Dostoevsky in English Translation (MPF) (3); and
2. RUS/ENG 256 Russian Literature in English Translation: Tolstoy to Nabokov (3), or
   RUS 257/ENG 267 Russian Literature in English Translation: Pasternak to Present (3); and
3. FST/RUS 263 Soviet and Post-Soviet Russian Cinema (3)

Note: Not open to Russian majors.

RUS 3 Developing Language Skills in Russian.
For students who have completed the first two semesters of college-level Russian language or the equivalent. This sequence develops speaking, listening, reading, and writing ability using a variety of materials drawn from textbooks, fiction, the Internet and journalism as well as multimedia. The courses are characterized by small sections and in-class and out-of-class interaction. Courses may not be taken credit/no-credit and must be taken in order.

1. RUS 201 Intermediate Russian (3); and
2. RUS 202 Intermediate Russian (3); and
3. RUS 301 Advanced Russian (3).

Note: Not open to Russian majors.

SBI 1 Summer Business Institute for Non-Business Majors/Minors.
Students will acquire a basic understanding of how businesses and people work together, providing synergy with the student's chosen major. Six-week program is designed to help talented non-business students develop a clear advantage in the competitive job market. The sequence assumes that you have no prior knowledge of business topics and is intended to make business learning interesting, accessible, and valuable to students in all majors. *Prerequisite:* Students must have 60 hours of college credit and permission of the instructor.
Take these three courses:

BUS 301 Macro Concepts in Contemporary Business (3)

BUS 302 Micro Concepts in Contemporary Business (3)

BUS 303 Business Process Integration (3)

Note: Not open to students with majors or minors in business.

SDT 1 Self-Designed Thematic Sequence.
The purpose of the self-designed thematic sequence is to provide students with the opportunity to design a specialized thematic sequence beyond those that are currently offered. This sequence should be based on the student's interests, career, goals, and intellectual interests. A proposal must be submitted to the Office of Liberal Education for approval (229 Culler Hall or visit *www.muohio.edu/led*) before the last 6 hours have been completed. This is a preapproval process.

SOC 2 Applied Social Science Methods.
Emphasizes the applied dimensions of social research, and reviews the basic methodologies social scientists employ in their research. Although you receive exposure to the techniques involved, emphasis is on the thinking processes involved in doing social research and in applying research findings. Learn how to frame questions, link them to basic concepts in sociology and anthropology, how to decide on appropriate methodologies, how to examine data, and how to link the results of research to theoretical and applied issues. Prerequisite: Either SOC 151 (MPF) (3) or SOC 152 (MPF) (4) or ATH 155 (MPF) (3).

1. SOC 262 Research Methods (4); and
2. ATH 265 Language and Culture (3); and
3. ATH 411 Applied Anthropology (3)

Note: Not open to majors in the Department of Sociology and Gerontology or the Department of Anthropology.

SOC 3 Sociological Perspectives on Inequality.
Uses a sociological perspective to approach the issues of social, political, and economic inequality in contemporary society, paying particular attention to inequality as it is determined by class, race, and gender. Begins with an examination of theories of social stratification; then follows a sequence of courses that allows you to develop an in-depth understanding of the major dimensions of social inequality. Prerequisite: SOC 151 Social Relations (MPF) (3) or SOC 152 (MPF) (4) or BWS 151 Introduction to Black World Studies (MPF) (4).

1. SOC/WMS 203 Sociology of Gender (3); and
2. BWS/SOC 348 Race and Ethnic Relations (3), or
   BWS/SOC 448 The African American Experience (3); and
3. SOC 372 Social Stratification (3), or
   SOC 411 Social Conflict (3), or
   SOC 417 Economy and Society (3)

Note: Not open to sociology or gerontology majors.

SOC 4 Sociological Perspectives on Criminality and Deviance.
Students will use the social dynamics of history and a sociological perspective to understand and critique conformity, crime, deviance, and the justice system in contemporary society, paying particular attention to the social construction of legality, normality, and crime as influenced by various cultural contexts. The sequence begins with an examination of the basic theories and components of deviance/conformity, then follows a sequence of courses that allows them to examine and develop an understanding of the criminology field and concludes with an advanced course. Students must apply for this Thematic Sequence; enrollment is limited.

1. SOC 201 Social Problems (4), or
   SOC 202 Social Deviance (4); and
2. SOC 352 Criminology (3); and
3. SOC 409 Systems of Justice (3), or
   SOC 410 Topics in Criminology (3), or
   SOC 413 Juvenile Delinquency (3)

Note: Not open to sociology or gerontology majors.

SOC 5 Gender and Family Studies.
Sequence exposes students to the major sociological contributions to gender and family issues and gives them experience in connecting the substantive content in the courses. Objectives include: 1) demonstrating how various sociological theories differentially contribute to our understanding of gender, sexuality, and families; 2) linking the core concepts sociologists employ across three levels of courses; 3) highlighting how definitional issues and current research in gender, sexuality, and family intersect, and 4) deriving personal insights for reflecting and acting regarding one's position in the social structure as to gender, sexuality, and family.

1. SOC/WMS 203 Sociology of Gender (3); and
2. SOC/WMS/FSW 221 Human Sexuality (3); and
3. SOC 361/FSW 363 Sociology of Families (3), or FSW/GTY 466 Later Life Families (3)

Note: Not open to sociology and gerontology majors.

SPA 2 Exploring Social Emotional and Communication Consequences in Special Populations.
Offers students the opportunity to develop insight into: (1) the problems facing physically, mentally, communicatively, culturally, or socially challenged individuals in our society; (2) the development of structures and environments needed for such individuals to communicate effectively, and (3) how these environmental modifications can be implemented. Provides specific information on recognizing and treating physical and communicative disorders, with emphasis placed on those problems that impact the normal development of speech, hearing, and language.

1. SPA 127 Introduction to Communication Disorders (3); and
2. EDP 256 Psychology of Learners with Exceptionalities (3); and
3. SPA 427/SPA 427L Alternative Communication Systems for the Severely Handicapped and Lab (2, 1); or EDP 491 Teaching Students with Mild and Moderate Disabilities (3).

Note: Not open to speech pathology and audiology majors. Special education majors must take all SPA courses (nine hours minimum outside department of major).

SPN 1 Literature and Culture in Spain.
Focuses on the literature of Spain, exploring the interrelationships among texts, history, and culture. SPN 313, a Foundation course, emphasizes skills in the analysis and interpretation of Spanish texts; SPN 413 explores social and historical circumstances (Christian reconquest, rise of monarchy, colonialism, tradition, and modernity) as represented in Spanish literature; SPN 420 engages in an in-depth exploration of an important cultural theme in Spanish literature, such as explorations of national identity, medieval and Golden Age views of love, urban versus rural culture, and the literature of the Spanish civil war. Prerequisite: SPN 311. Courses must be taken in order.

1. SPN 315 Intro to Hispanic Literatures (3); and
2. SPN 351 Cultural History of Spain I (3); and
3. SPN 352 Cultural History of Spain II (3)

Note: Not open to majors in the Department of Spanish and Portuguese.

SPN 2 Literature and Culture in Spanish America.
Focuses on the literature of Spanish America, exploring the interrelationships among texts, history, and culture. SPN 315, a Foundation course, emphasizes skills in the analysis and interpretation of Spanish American texts; SPN 361 explores social and historical circumstances (colonialism through national independence, issues of national development) as represented in Spanish American literature; SPN 362 continues to focus on cultural and historical circumstances in Spanish American literature from the nineteenth to the twenty-first century. **All courses taught in Spanish, and all work is completed in Spanish**. Prerequisite: SPN 311. Courses must be taken in order.

1. SPN 315 Introduction to Hispanic Literature (3)
2. SPN 361 Cultural History of Spanish America I (3)
3. SPN 362 Cultural History of Spanish America II (3)

SPN 3 Spanish Linguistics and Culture.
Focuses on the study of language as a sign of cultural identity and as a social marker. Although the focus is on Spanish, the general goal is to develop the students' ability to think critically about the connection between language and the social and cultural contexts in which it develops and exists. Students will learn to collect and interpret linguistic data, discuss historical events and conditions that have determined the evolution of Spanish dialects and the establishment of a standard, and evaluate current linguistic conflicts in the Spanish-speaking world.

1. SPN 312 Introduction to Spanish Language and Linguistics (3), and
2. SPN 381 Spanish Language and Hispanic Culture I (3); and
3. SPN 382 Spanish Language and Hispanic Culture II (3)

Note: Not open to majors in the Department of Spanish and Portuguese.

STA 1 Quality Issues in Contemporary Business and Industry.
Provides sufficient understanding of the factors influencing quality and organizational productivity. Upon completion, you should be able to critically examine work systems and play a leading role in the improvement of any work process in which you are involved. Key themes include: data based decision-making, use of statistical tools for process analysis and quality improvement, measurement of quality, Total Quality Management, quality leadership, employee involvement, and the relationship between work processes and quality improvement systems.

1. DSC 205 Business Statistics (4), or STA 301 Applied Statistics (3), or STA 368 Introduction to Statistics (4); and
2. MGT 302 Introduction to Operations and Supply Chain Management (3); and
3. DSC/STA 365 Statistical Quality Control (3), or MME 334 Quality Planning and Control (3); and
4. MGT 453 Productivity Improvement (3)

Note: Not open to majors in the Department of Management. Majors in the departments of Decision Sciences and Management Information Systems; Manufacturing and Mechanical Engineering; and Mathematics and Statistics must select a minimum of nine hours from outside their department of major.

STA 2 Applied Statistics.
Provides a basic understanding of the statistical data analysis procedures of estimation and hypothesis testing and their use in data-based decision making. Based primarily on the "classical" assumptions of random sampling and normal distributions, data analysis applications range from one and two population problems to more complex problems of regression and design of experiments. The first course, chosen from three options, introduces additional statistical procedures that go beyond the "classical" assumptions. Considers examples from a variety of disciplines and life experiences and employs statistical software extensively.

1. STA 261 Statistics (MPF) (4), or STA 301 Applied Statistics (3), or STA 368 Introduction to Statistics (4); and
2. STA 363 Regression and Design of Experiments (3); and
3. STA/DSC 333 Nonparametric Statistics (3), or STA/DSC 365 Statistical Quality Control (3), or STA/DSC 432 Survey Sampling in Business (3)

Note: Not open to majors in the Department of Mathematics and Statistics. Majors in decision science and management information systems must select a statistics course at the third level.

THE 1 Modern Theatre and Drama.
Study of the influences, backgrounds, playwrights, and theatre artists that have brought about contemporary theatre production practice, style, and dramaturgy. The eclecticism of 20th century theatre reflects the shifting realities of science, culture, politics, and aesthetics in a way that mirrors our attempts to understand ourselves and our world. The objective is to reach an integrative knowledge of the connectedness of art and society to understand how in creating an image of our lives, in forging new realities, in exploring new forms and styles, theatre artists have helped define our response to the world and our experience.

1. THE 101 Theatre Production I: Theory and Analysis (MPF) (3); and

THE 103 Theatre Production I Laboratory (MPF) (1); or
THE 191 Theatre Appreciation (MPF) (3); and

2. THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3); and

3. Two from the following:
THE 391 Modern American Theatre (3), or
THE 392 Modern European Theatre (3), or
THE 395 American Musical I: A History to 1950 (3), or
THE 396 The American Musical II: A Contemporary History 1950-2005 (3)

Note: Not open to majors in the Department of Theatre.

WMS 1 Women and the World.
This sequence focuses on understanding women's historical and contemporary socio-cultural and political realities from an international perspective. Students will learn to use gender as a category of analysis, to understand complex issues and processes related to an increasingly interconnected world system and the ways women and gender are implicated in these processes, and to apply this knowledge to the topical issues of either the environment and natural resources or the politics of varied forms of cultural representation and interpretation.

1. WMS 201 Introduction to Women's Studies (MPF) (3); and

2. WMS/POL 346 Global Gender Politics (3); or
WMS/HST 450 Topics in Women's History (3); and

3. WMS/REL 333 Religion, Dress, and Status (3); or
WMS/GEO 436 Women, Gender, and the Environment (3)

Note: Not open to women's studies majors.

WMS 2 Scholarly Studies of Gender and Sexuality.
The thematic sequence in Scholarly Studies of Gender and Sexuality provides an opportunity for investigating and analyzing the historical, social, legal, and cultural forces that shape experiences, expressions, and representations of non-normative genders and sexualities including, but not necessarily limited to Gay, Lesbian, Bisexual, Transgendered, Intersex and Queer individuals and communities. Students will receive a broad, interdisciplinary introduction to scholarship in GLBTIQ studies in the foundation course, then focus more specifically on a disciplinary or topical perspective in tier two, ultimately engaging with the philosophical and theoretical aspects of investigating sexuality and gender as meaning-making cultural and social systems.

1. WMS 202 Introduction to GLBT Studies (3)*; and

2. BWS 492 African & American Sexualities (3), or
COM/FST 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3)*, or
COM/FST 282 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3), or
ENG 165 Literature and Sexuality (3)*, or
ENG 237 Gay and Lesbian Literature (3), or
SOC/WMS 203 Sociology of Gender Roles (3), or
SOC/FSW/WMS 221Human Sexuality (3); and

3. WMS/ENG 435 Queer Theory (3)

*Only one foundation course in any thematic sequence may count toward a student's foundation requirements.

Note: Not open to women's studies majors.

ZOO 1 Concepts in Physiology.
Provides an understanding of cellular and molecular mechanisms involved in physiological systems. Begins with a Foundation course then provides more depth to cellular and molecular mechanisms of action in physiological processes.

1. BOT/MBI/ZOO 116 Biological Concepts (MPF) (4), or
ZOO 114 Principles of Biology (MPF) (4); and

2. ZOO/BOT 203 Introduction to Cell Biology (3); and

3. ZOO 305 Animal Physiology (4)

Note: Not open to majors in the Department of Zoology.

ZOO 2 Animal Diversity.
Illustrates the diversity of organisms within the Kingdom Animalia. This diversity includes variation in body structure and function, life history traits, and ecological roles. Upon completion, students will be able to describe major patterns in variation among animal taxa, understand mechanisms that lead to creation of such variation, and provide detailed examples of animal diversity.

1. ZOO 113 Animal Diversity (MPF) (4); or
BOT/MBI/ZOO 115 Biological Concepts (MPF) (4); and

2. ZOO/BOT 209 Fundamentals of Ecology (3); or
ZOO 206 Evolutionary Biology (3); and

3. ZOO 311 Vertebrate Zoology (4); or
ZOO 312 Invertebrate Zoology (4).

Note: Not open to zoology majors.

Thematic Sequences Available at Dolibois European Center in Luxembourg

For information, contact the Oxford MUDEC Coordinator, 220 MacMillan Hall (513-529-5050).

LUX 3 European Culture and Society.
(Interdisciplinary) Permits you to draw on the variety of European focused courses available at the Dolibois European Campus to develop an in-depth understanding of the complexities of contemporary Europe. Emphasis is on an interdisciplinary perspective which links cultural phenomena and socio-political dynamics. You must take at least one course from each of the three groupings: language, social sciences, and humanities.

LUX 4 The Development of Contemporary Europe.
(Business) As one of the centers of the European Union, Luxembourg is an ideal place to study Europe from a business perspective. This location permits you to gain a clear perspective on the cultural, political, and sociological phenomena in the post World War I period. Take the core lecture course plus two courses from the companion list for a total of nine credit hours. Students whose major is in the same department as the core may only count the core lecture course for this unit.

Capstone Experience (3 hours minimum)

The Capstone Experience, completed near the end of baccalaureate studies, integrates liberal learning with specialized knowledge. Each Capstone emphasizes sharing of ideas, synthesis, and critical, informed reflection as significant precursors to action, and each includes student initiative in defining and investigating problems or projects.

Capstones may be completed in or outside student's majors; in some departments, the Capstone Experience may be a requirement of the major. All Capstones presume a significant scholarly background of specialized study in a major as well as in liberal education course work. In other words, a Capstone does more than culminate years of baccalaureate study: it culminates a student's liberal education.

Ordinarily, a Capstone Experience is taken at Miami and completed in the senior year (minimum of 96 hours registered or earned). Students who plan to transfer any course to meet the Capstone requirement must obtain permission from the Office of Liberal Education **before** they take the course.

The Office of Liberal Education website (*www.muohio.edu/led*) provides a complete listing of Capstone Experiences. **Please refer to the Courses of Instruction chapter for course descriptions of the Capstones.**

Students may propose their own Senior Capstone Experience. See the Office of Liberal Education website (*www.muohio.edu/led*) for details.

Capstone Experience Courses

AES 432 National Security Forces in Contemporary American Society (3)
AMS 401 Senior Capstone in American Studies (4)
ARC 402C Senior Studio Capstone Experience (6)
ARC 405U/GEO 493 Urban Field Experience (3)
ARC 408 Senior Interior Design Studio Capstone Experience (6)
ARC 426 Architecture and Society (3)
ART 419 Supervised Teaching in Art (16)
ART 452 Senior Degree Project (3)
ART 453 Highwire Brand Studio (4, maximum 8)
ART 492 Professional Artist's Portfolio and Exhibition Experience (3)
ART 497 Museums as Interpreters of Culture (3)
ART 498 Seminar in the History and Methods of Art and Architectural History (3)
ATH 421 Senior Seminar in Anthropology (3)
ATH 426 Ethnographic Field Research (4-16)
ATH 448 Developing Solutions in Global Health (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BIS 401 Senior Integrative Seminar (3)
BLS 465 Ethics, Law, and Business (3)
BOT/ZOO 467 Conservation Biology (3)
BOT 490A Current Advances and Issues in Botany (1) (with concurrent enrollment in BOT 477) (2)
BOT 490B Research/Internship Capstone in Botany (1) (with concurrent enrollment in BOT 400 (2) or
BOT 477 (2) for research option; or concurrent enrollment in BOT 340 (2) for internship option)
BOT 490C Departmental Honors Capstone in Botany (1) (plus concurrent enrollment in BOT 480) (2)
BOT 490D Undergraduate Botany Teaching (1) plus concurrent enrollment in BOT 477 (2)
BOT 3-2 Program in Forestry/Environmental Management
BOT/GLG/ZOO 494 Sustainability Perspectives in Resources and Business (3)
BOT/GEO 496 Biodiversity of Kenya (5)
BOT 499A Tropical Flora of the Bahamas (3)
BWS/FST/LAS 415 Cuba in Revolution (4)
BWS/WMS 370E Feminism and the Diaspora: Women of Color in the U.S. (3)
CHM 491 Chemistry in Societal Issues (3)
CHM 492 Independent Research Capstone in Chemistry (3)
CLS 401 The Age of Pericles (3)
CLS 402 The Age of Augustus (3)
COM 411 Interactive Media Study Practicum (4)
COM 414 Senior Project in Communication (4)
COM/JRN 415 Practicum in Television Journalism (3)
COM 437 Advocacy in Contemporary America (3)
COM 439 Advanced Organizational Communication (3)
COM 440 Practicum: Mass Media Advertising and Public Relations (4)
COM 445 Seminar in Mass Communication Law (3)
COM 459 Advanced Public Relations (3)
CSE 481 Technology for Managing Disease and Disability (3)
DST/ENG/SPA/COM/SOC/EDP 494 Disability in Global and Local Contexts (3)
ECO 405 Managerial Economics (3)
ECO 427 The Great Depression Revisited (3)
EDL 401 Cultural Studies and the Complexity of Empowerment (3)
EDP 460 Action Research/Problem-based Seminar in Exceptional Education/Developmental Differences (3)
EDP 472 Literacy Seminar: Practicum (3)
EDT 422 Studies in Educational Issues (3)
EDT 495 Writing Information Books for Children (3)
EDT 499C Comparing Selected U.S. and European Schools (3)
Engineering 3-2 Program
ENG 405 Advanced Linguistics (3)
ENG 406 Discourse Analysis: Speech Acts in Context (3)
ENG 415 Practicum in Technical and Scientific Communication (3)
ENG 460 Issues in Creative Writing (3)
ENG/WMS 495 Capstone in Literature (3)
ENG 496 English Studies: Reflections on Literature and Language (3)
ENT 497, 498 Senior Design Project (2, 2)
ESP 461 Small/Emerging Enterprise Consulting (3)
ESP 467 Entrepreneurship: New Ventures (3)
FIN 485 Integrative Concepts in Finance (3)
FRE 410 Senior Seminar (3)
FSW 462 Family Policy and Law (3)
FSW 498 Critical Thinking About Family Relationships (4)
GEO 491 Senior Seminar (4)
GEO 492 Geography of the Auto Industry (3)
GER 471 Linguistic Perspectives on Contemporary German (3)
GLG 411 Field Geology (6)
GTY 440G Field Experience in Gerontology (3)
HST 400 Senior Capstone in History (3-6)
IMS 440 Interactive Media Studies Practicum (4)
ITS 402 Senior Capstone in International Studies (3)
JRN 421 Capstone in Journalism (3)
KNH 402 Critical Reflections on Health Care (3)
LAS 410 Current Latin American Issues (3)
MBI 440C Research Problems (2) and MBI 490C Undergraduate Seminar (1)
MBI 477C Independent Study (2) and
MBI 490C Undergraduate Seminar (1)
MBI 480C Departmental Honors (2) and MBI 490C Undergraduate Seminar (1)
MBI 487, 488, 489 Clinical Laboratory Science Practicum (8, 15, 15)
MGT 495 Strategic Management (3)
MIS 495 Managing the Intelligent Enterprise (3)
MKT 442 Highwire Brand Studio (4)
MKT 444H SocietyWise (4)
MKT 495 Marketing Strategy Practicum (4)
MME/ECE/CSE 448, 449 Senior Design Project (2, 1-2)
MTH 407 Mathematical Structures Through Inquiry
MTH 425 Number Theory (3)
MTH 435 Mathematical Modeling Seminar
MTH 482 Great Theorems of Mathematics (3)
MUS 453 Comparisons in the Arts (3)
MUS 475 Senior Practicum in Music Education (3)
MUS 493 Capstone Senior Recital (3)
NSG 435 Challenges in Health Care Delivery (3)
PCE 411 Advanced Paper Manufacturing (3)
PCE 471, 472 Engineering Design I, II (1, 2)

PHL 404 What is Philosophy? (3)
PHL 405 Philosophy for Children (4)
PHY 488A and 488B Research Capstone in Physics (3)
POL 419 Civil Society and Modern Politics (3)
POL 424 Transatlantic Seminar on the European Union (4)
POL 439 North American Politics: Unity and Diversity (3)
POL 459 Capstone Seminar on the American Political System (3)
POL 466 Public Policy Analysis (3)
POL 471 The International System (3)
POL 487 Individual Lives and International Politics (3)
POL 489 Conflict Management in a Divided World (3)
PSY 410 Capstone Seminar in Psychology: Multiple Determinants of Behavior (3)
PSY 490 Research Apprenticeship in Psychology (3)
REL 402 Basic Structures in the History of Religions (4)
RUS 401 St. Petersburg: History, Literature, Culture (3)
SOC 459 Sociology Capstone (3)
SOC 462 Applied Sociological Research (3)
SPA 413 Senior Seminar in Communication Disorders (3)
SPA 499B Intercultural Workshop in Speech Pathology and Audiology (3)
SPN 490 Issues in Hispanic Literature (3)
STA 475 Data Analysis Practicum (3)
THE 490 The Theatre and a Cultural Aesthetic (3)
THE 499K Field Studies in the Czech Republic (8)
WMS 401 The Role of Women in a Transforming Society (3)
WST 444, 445 Senior Workshop and Project (5, 5)
ZOO 400 Capstone Seminar: Contemporary Issues (3)
ZOO 419R Independent Research in Zoology (3)
ZOO 431 Winter Biology (3)
ZOO 444 Molecular Biology (3)
ZOO 452 Nerve and Muscle Physiology (4)
ZOO 453 Animal Physiological Ecology (4)
ZOO 454 Endocrinology (3)
ZOO 459/469 Methods in Neurophysiology/Neurophysiology (1, 3)
ZOO 462 Environmental Toxicology and Risk Assessment (4)
ZOO 465 Animal Behavior (4)
ZOO/BOT 467 Conservation Biology (3)

Beyond their liberal education courses, students must complete work for their major and divisional requirements, and complete additional hours for minors or electives.

Frequency of Course Offerings

Scheduling information is provided for some courses in the Courses of Instruction chapter in this Bulletin. Scheduling patterns are subject to change without notice based, usually, on student demand, faculty availability, and programmatic priorities.

Changes of Course Offerings

Students enrolled under the Miami Plan previous to the fall 2010 semester may opt to fulfill their liberal education requirements. Contact the divisional advising offices for details.

Other Requirements

Divisions, Majors, and Minors

Academic Divisions and Departments

Miami University has six academic divisions: College of Arts and Science, Farmer School of Business, School of Education, Health, and Society, School of Engineering and Applied Science, School of Fine Arts, and Graduate School.

Within the undergraduate divisions are the academic departments, offering major and minor programs. So, for example, if your major is software engineering, you are in the School of Engineering and Applied Science. All majors, minors, degrees, and certificate programs are listed in the General Information chapter.

For a degree, you must fulfill three sets of requirements: the Miami Plan for Liberal Education, the requirements of your academic division, and the requirements of your major. If you have admission prerequisites to be met, those also must be completed. Often these requirements overlap; that is, one course may fulfill several requirements.

Majors

Your major is your primary field of study, such as architecture, geography, etc. Your major program requirements are described in your academic division chapter of this Bulletin. For example, requirements for a degree in geography are listed in the College of Arts and Science chapter. All majors are listed in the General Information chapter.

Although you do not need to choose a major when you enroll, you are required to choose a division. In most cases, if you use your first year to take courses that fulfill a part of the Miami Plan and divisional requirements, you can still complete a major with no delay. To declare your major, after taking classes for a semester or more, request a change/declaration of major form from your divisional office, complete the information, and have your department chair sign. When you return it to your divisional office, your program information is transferred to your academic records.

Minors

A minor is a second field of study taken along with a major. Taking a minor is optional. This is a specific program that may widen your primary area of interest or increase your career opportunities. Most minors require fewer hours than majors—all require at least 18 semester hours in a specified program. Minors may be offered within one department or across several departments.

Minors are offered in many fields of study. A list of minors is in the General Information chapter; requirements for each minor are included in each division's chapter.

To earn a minor, these are the minimum requirements (some minors require more):

- Notify the department or chair of the interdepartmental committee that you will be taking the minor.
- You must have a 2.00 grade point average (g.p.a.) for all courses in a minor. Some minor programs may require a higher g.p.a.
- All courses taken for the minor must be for a grade, not for credit/no-credit, unless exceptions are stated.
- When you apply for graduation, you must indicate on your application that you are receiving a certain minor. A minor can only be awarded with a bachelor's degree.

You may have more than one minor. All minors you complete are noted on your academic record. Courses used to satisfy the requirements for one minor may also be used to satisfy the requirements for another minor or major. Not all major programs allow students to record certain minors, and some minors are open only to certain majors. Check with your adviser for more information.

Students who entered the university in the 1997-98 academic year or later may use a minor to meet the Global Miami Plan Thematic Sequence requirement if the minor is outside their department of major and if it includes a Thematic Sequence. See the Global Miami Plan section for more information.

Changing a Major or Minor

To change your major or minor, go to your divisional dean's office and request a change/declaration of major form, fill in the information, and have your department chair sign it. When you return the form to your divisional office, your program information is transferred to your academic record. If you need to change divisions, go to the new divisional dean's office to request the form.

Additional Major, Minor, or Degree

With careful planning, you can complete requirements for more than one major, minor, and/or more than one degree. Early in your program, notify the Registrar's office, your divisional office(s), and departments involved, so this will be noted on your academic records and you will have advisers for your programs.

You must pay a graduation fee for each degree you earn.

If you have already received a bachelor's degree from another accredited college or university, you can qualify for a degree from Miami by earning an additional 32 semester hours and meeting all requirements for the additional degree.

Miami Plan Thematic Sequence

To enroll in a Thematic Sequence, contact the department in which the sequence is housed which are listed in *Course Schedules* published by the Office of the Registrar or go to the Office of Liberal Education Web site (*www.units.muohio.edu/led*). See the Liberal Education at Miami section in this Bulletin.

Basic Personal Computer Proficiency

Incoming students are expected to demonstrate a minimum proficiency with the use of a personal computer and basic software programs. These minimum proficiencies include:

1. the ability to use the Internet to find and retrieve information including: locating an Internet site given a URL; navigating between information sources; doing basic searches using a major Internet search service; and submitting information via on-line forms.
2. the ability to use electronic mail as a form of communication including: sending an e-mail when given an e-mail address; responding to an e-mail; sending e-mail to a group of individuals; and sending and receiving attachments as part of an e-mail.

3. the ability to use a word processing program to create and edit documents including: creating a new document; editing an existing document; changing the format of text; and changing margins, page orientation, and other elements of page layout.
4. the ability to use an operating system including copying or moving a file to or from removable media; finding files or folders on a local hard drive; and creating a sub-directory (folder).

Students who have not acquired these skills prior to entering the university will be provided with training opportunities during their first semester.

Physical Education

Physical education is optional. No more than 10 semester hours of physical education (kinesiology and health) courses numbered 110-170 can count toward a bachelor's degree; no more than five semester hours can count toward an associate's degree.

Credit More Than 10 Years Old

If your course of study is prolonged beyond 10 years, curricula changes adopted after your entrance date as a degree candidate may be required by the university, division, or department.

Students who have earned credits more than 10 years before their planned graduation date must petition to their divisional committee of advisers to validate these credits. Students are responsible for supplying course descriptions or a college catalog from those colleges previously attended.

Note: This policy is under review at press time.

Requirements for Graduation

All majors, minors, and degrees are listed in the General Information chapter.

Associate's Degree

An associate's degree, generally offered only on the regional campuses, requires:

- At least 64 semester hours, including 16 hours from Hamilton or Middletown campuses (An exception to this is the Associate in Arts; see below.)
- Fulfillment of the Miami Plan for Liberal Education appropriate to your associate's degree
- Six of your last 10 hours must be taken at Miami University
- At least a 2.00 cumulative g.p.a.
- Fulfillment of your program requirements
- Applying for graduation whether or not you plan to attend the ceremony

If you continue your education past 64 semester hours and your g.p.a. falls below 2.00, you can still receive an associate's degree if your g.p.a. was 2.00 at the time you finished 64 semester hours and your degree requirements. Your academic record will show when you have completed the requirements, and your associate's degree will be awarded at the next commencement.

Associate in Arts

The Associate in Arts in general studies is available to any Miami University student. For this degree, 32 of the required 64 semester hours must be from any Miami campus. See the program requirements in the Miami University Hamilton and Middletown section.

Bachelor's Degree

For a bachelor's degree, basic requirements for graduation include:

- Fulfillment of the Miami Plan:

Foundation courses	36 semester hours
Thematic Sequence	9 semester hours
Capstone Experience	3 semester hours
Field (major/ courses, divisional requirements, electives)	80-86 semester
Total	128 semester hours

- Of the total 128 semester hours, at least 32 must be from Miami University (any campus), including 12 of the final 20 hours required for the bachelor's degree.
- At least a 2.00 cumulative g.p.a.
- If you are enrolled in an arts- professional arrangement program, in which you transfer to another university after three years, you must earn 96 Miami hours in the College of Arts and Science. In all cases, 32 of your last 40 hours must be from Miami.
- Applying for graduation whether or not you plan to attend the ceremony.

Application for Graduation

To graduate, whether or not you plan to attend the ceremony, you must submit an application and pay a fee. If you earn more than one degree, you must pay a graduation fee for each. Applications for graduation are available at the Office of the Registrar, 102 Campus Avenue Building. After your application is processed, your account will be assessed the appropriate fee, and you will be billed by the Bursar's office.

You are encouraged to apply for graduation at least a semester in advance. This way, routine checks can be made in time to inform you of any problems in meeting your degree requirements.

Applications should be received no later than 30 working days before commencement.

If you apply for graduation and then do not qualify for the degree, you must pay a re-application fee and notify the Office of the Registrar of the date you intend to finish your requirements. All deadlines applicable to first-time applications apply to re-applications.

Degree Audit Reporting System (DARS)

A DARS shows your completed course work and current registration matched with degree requirements of your declared major; it identifies deficiencies and lists courses to satisfy specific requirements. The report assists you, your adviser, and the university in determining your progress toward completion of your program requirements and serves as a graduation check.

Your DARS is available online (*http://bannerweb.muohio.edu/*). You may also request a DARS at the Office of the Registrar, 102 Campus Avenue Building; a picture I.D. is required.

Student Responsibility

Although all students are offered academic advice throughout their time here—through freshman advisers, academic departments, and deans' offices—please understand that the final responsibility for meeting all graduation requirements rests with you, the student.

Graduation with Distinction and Honors

A student pursuing a bachelor's degree or an associate's degree can graduate with distinction. The current criteria are based upon university-wide grade point averages: 3.50 for *cum laude*, 3.75 for *magna cum laude*, or 3.90 *summa cum laude*. Effective with spring commencement 2011, the criteria are divisionally-based, awarding the distinction of *summa cum laude* to the highest 2 percent, *magna cum laude* to the next 5 percent, and *cum laude* to the next 10 percent, with no more than 17 percent being awarded honors. The College of Arts and Science will calculate separately within the three cognate areas of Humanities, Social Sciences, and Natural Sciences.

For students who earn fewer than 64 credit hours from Miami toward a bachelor's degree or fewer than 32 credit hours from Miami toward an associate's degree, the cumulative g.p.a. to determine eligibility for distinction at graduation is the lower of the following averages: (1) average for all courses taken from Miami or (2) combined average using grades from all college-level courses.

Departmental Honors are achieved by students who complete additional study in their major area through a Departmental Honors program.

University Honors are awarded to students who complete the requirements of the University Honors Program and achieve a cumulative g.p.a. of 3.5 upon completion of the credit hours required for graduation.

Departmental Honors, University Honors, President's List, and Dean's List recognitions are described in the Special Opportunities and Programs chapter.

Academic Planning

Educational Decisions

Advanced Placement Program (AP)

If you took an Advanced Placement (AP) test in high school, you may be able to receive Miami credit for an appropriate score. The State of Ohio, working through the University System of Ohio, has initiated policies to facilitate the ease of transition from high school to college as well as between and among Ohio's Public colleges and universities.

Beginning with students entering Miami University in the Fall term 2009:

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

AP Subject	AP Score	Course Number	Course Title	Hours Awarded
Art History	3	ART 188	History of Western Art: Renaissance-Modern	3
	4 or 5	ART 187, 188	History of Western Art: Prehistoric-Gothic History of Western Art: Renaissance-Modern	6
Biology	3, 4 or 5	BOT/MBI/ZOO 116	Biological Concepts: Structure, Function, Cellular and Molecular Biology	4 (for score of 3: students advised to take course at college level, if biology major)
Calculus AB	3, 4 or 5	MTH 151	Calculus I	5 (for score of 3: students advised to take course at college level if going to Calculus II)
Calculus BC	3, 4 or 5	MTH 151, 251	Calculus I, Calculus II	9
Chemistry	3	CHM 111 (includes lab)	Chemistry in Modern Society	4
	4 or 5	CHM 141,142,144,145	College Chemistry, College Chemistry Lab	10
Chinese Language and Culture	3	CHI 101, 102	Elementary Chinese	8
	4 or 5	CHI 201, 202	Second Year Chinese	6
Computer Science A	3	CSE 153	Introduction to C/C++ Programming	3
	4	CSE 174	Fundamentals of Programming and Problem Solving	3
	5	CSE 174, 271	Fundamentals of Programming and Problem Solving, Object-Oriented Programming	6
Computer Science AB	3	CSE 174	Fundamentals of Programming and Problem Solving	3
	4 or 5	CSE 174, 271, 274	Fundamentals of Programming and Problem Solving, Object-Oriented Programming, Data Abstraction and Data Structures	9
Macroeconomics	3, 4 or 5	ECO 202	Principles of Macroeconomics	3
Microeconomics	3, 4 or 5	ECO 201	Principles of Microeconomics	3
English Language	3	ENG 111	College Composition	3 (students then take ENG 112)
	4	ENG 111	College Composition	3 (students then take ENG 113)
	5	ENG 111, 112	College Composition, Composition and Literature	6
English Literature	3	ENG 112	College Composition and Literature	3 (students then take ENG 111)
	4	ENG 112	College Composition and Literature	3 (students then take ENG 113)
	5	ENG 111, 112	College Composition, Composition and Literature	6
Take both exams:				

English Language & English Literature	3 3	ENG 111 ENG 122	College Composition Popular Literature	6 (student then takes ENG 112)
English Language &English Literature	4 3	ENG 111 ENG 122	College Composition Popular Literature	6 (student then takes ENG 113)
English Language & English Literature	3 4	ENG 111 ENG 122	College Composition Popular Literature	6 (student then takes ENG 113)
English Language & English Literature	4 4	ENG 111 ENG 122	College Composition Popular Literature	6 (student then takes ENG 113)
Any score of 5 with any other score	5 *	ENG 111 ENG 112	College Composition College Composition & Literature	6
Environmental Science	3, 4 or 5	ZOO 121	Environmental Biology	3
European History	3, 4 or 5	HST 122	Western Civilization	3
French Language	3	FRE 101, 102	Introduction to French Language and Culture	8
	4 or 5	FRE 201, 202	Intermediate French, Critical Analysis of French Culture	6
French Literature	3	FRE 101, 102 and 201	Introduction to French Language and Culture, Intermediate French	11
	4 or 5	FRE 102, 201, 202	Introduction to French Language and Culture, Intermediate French, Critical Analysis of French Culture	10
German Language	3	GER 101, 102	Beginning German I, II	8
	4 or 5	GER 201, 202	Second Year German I, II	6
Comp Government & Politics	3, 4 or 5	POL 102	Politics and Global Issues	3
U.S. Government & Politics	3, 4 or 5	POL 101	Politics and National Issues	3
Human Geography	3, 4 or 5	GEO 101	Global Forces, Local Diversity	3
Italian Language and Culture	3	ITL 101, 102	Beginner's Course	8
	4 or 5	ITL 201, 202	Second Year Italian	6
Japanese Language and Culture	3	JPN 101, 102	First Year Japanese	8
	4 or 5	JPN 201, 202	Second Year Japanese	6
Latin Literature	3	LAT 101, 102	Beginning Latin	8
	4 or 5	LAT 201, 202	Intermediate Latin	6
Latin: Vergil	3	LAT 101, 102	Beginning Latin	8
	4 or 5	LAT 201, 202	Intermediate Latin	6
Music Theory	3, 4 or 5	Non Aural Subscore- MUS 101	Music Theory I	2
		Aural Subscore- MUS 151	Sight Singing and Dictation I	1
Physics B	3, 4 or 5	PHY 171, 172, 183, 184	College Physics, Physics Laboratory	8
Physics C: Electricity and Magnetism	3, 4 or 5	PHY 182, 184	The Physical World, Physic Laboratory	5
Physics C: Mechanics	3, 4 or 5	PHY 181, 183	The Physical World, Physic Laboratory	5
Psychology	3, 4 or 5	PSY 111	Introduction to Psychology	4
Spanish Language	3	SPN 101, 102	Beginner's Course	8
	4 or 5	SPN 102, 201, 202, 311	Beginner's Course, Second Year Spanish Grammar Review & Introductory Composition	6
Spanish Literature	3	SPN 101, 102, 201	Beginner's Course, Second Y ear Spanish	11
	4 or 5	SPN 102, 201, 202, 311	Beginner's Course, Second Year Spanish Grammar Review & Introductory Composition	10
Statistics	3, 4 or 5	STA 261	Statistics	4
Studio Art: Drawing	3, 4 or 5	ART 121	Drawing I	3
Studio Art: 2-D Design	3, 4 or 5	ART 111	Visual Fundamentals	3
Studio Art: 3D Design	3, 4 or 5	ART 171	Visual Fundamentals: 3-D	3
U.S. History	3, 4 or 5	HIST 111, 112	Survey of American History	6
World History	3, 4 or 5	HST 197, 198	World History to 1500, World History Since 1500	6

Choosing a Major and Making Career Choices

This is never a simple decision. Many students change majors at least once.

Although you do not need to choose a specific major, you will need to choose a division when you register. If you are undecided, you are assigned to the College of Arts and Science for advising purposes. In most cases, if you use your first year to take courses that fulfill the Miami Plan and divisional requirements, you can still complete a major program with no delay. However, **to complete some majors in a four year time period, you must begin them as a first year student.**

To make academic and career choices, you need to consider your interests and abilities. By now you probably have a strong sense of your academic strengths and weaknesses. Your interests, however, are still developing and, like more specific skills, depend on exposure to various activities and ideas.

Career Services, located at 200 Hoyt Hall on Western Campus, can also help with your major and/or career search. It has an extensive Career Resource Center with numerous career-related books and directories and computer-assisted career guidance programs. The Career Services website www.muohio.edu/careers/ provides useful career information and links to dozens of other career-related sites. Career Services offers standardized career assessments to help you learn about your interests, abilities, and values and to relate them to your academic and career choices. Career Assistants can help you work through the decision-making process and find needed resources. They can also make Career Advising appointments for you with the professional staff to help you make career and/or major-related decisions.

A two-credit-hour course, EDL 100 Career Development and the College Student, provides opportunities to learn more about selecting a career and appropriate major. It is typically offered to first- and second-year students. Juniors and seniors may be allowed in with special permission, call Career Services to inquire about this (513-529-3831).

If you want help with job search skills (e.g. resume help, job or internship search strategies) or need information about specific careers or internships, you can also visit Career Services. This office hosts 300-350 employers each year for on-campus interviews. Career and job-search advising is available by appointment and during specified walk-in hours.

A second two credit hour course, EDL 302 Career Entry Skills/Post-College Planning is designed to assist students in making the transition from college to the world-of-work, service and/or graduate or professional school. This course covers skills related to attaining career goals, and is offered to juniors and seniors.

Finally, don't forget to talk with advisers in any academic division or department; they can advise you on curriculum, career opportunities within fields, and opportunities for advanced study.

Programs with Special Admission Requirements

Some programs have special requirements that call for careful planning. For example, you must be admitted to most majors in the School of Fine Arts or the Department of Nursing (Hamilton & Middletown campuses only) before you declare the major. Also, teacher licensure programs and science and technical major programs require specific courses that are usually taken in order.

It is important to check your major's requirements. Programs are listed in each division's chapter.

At present, majors with limited or restricted entry include mass communication, journalism, technical and scientific communication, nursing, social work, special education, speech communication, speech pathology and audiology, all licensure programs in the Department of Teacher Education, strategic communication, and all programs in the Farmer School of Business and most majors in the School of Fine Arts.

Academic Advising

Academic advisers are available to help you understand academic requirements and to address your concerns. They can provide you with information and resources that will help you make decisions about your class schedule, course of study, and future opportunities.

First year advisers serve as the primary academic adviser for students during their first semester at Miami. First year advisers are full time staff with master's degrees who live and work in the residence halls. First year commuter students are advised by the Commuter Center graduate adviser in the Commuter Center, located in room 100 of Shriver Center.

In addition to the first-year adviser, students in the School of Fine Arts and the School of Engineering and Applied Science are assigned a faculty adviser during their first year to further assist them with academic requirements. .

In the second semester of your first year, or when you transfer to Miami as an upper-class student, you will be assigned a faculty adviser in your major. For example, if you are a botany major, a faculty member in that department will be your adviser. If you change majors, your adviser will also change. Students who are undecided about their major will be advised by an academic adviser in the College of Arts and Science advising office.

Freshman Mid-Semester Grade Reports

Midterm grades are available to first year students online through *BannerWeb* in mid-October. In the spring semester, midterm grades are issued only to continuing students who earned 16 or fewer credit hours in their previous semester(s). Midterm grades provide students the opportunity to assess their academic performance while there is still time to improve before receiving official grades. Midterm grades are not recorded on student's academic records. First year advisers also have access to students' midterm grades, and they meet with students who are struggling to discuss strategies for improving academic performance.

Academic Support

Bernard B. Rinella, Jr. Learning Center
14 Campus Avenue Building, 513-529-8741
www.muohio.edu/learning

Students experiencing academic difficulty can seek assistance at the Rinella Learning Center. One-to-one and small group tutoring is available; tutoring is geared to develop self-confidence and independence. Peer tutors reinforce course material and help students to develop strategies to learn class material, prepare for homework, and take exams. Tutoring is free of charge. Requests for tutoring can be made on-line at *www.muohio.edu/tutoring*. Learning specialists are also available for individual consultations.

Also coordinated in this office are academic support services for student athletes, students with LD/ADD, students on academic probation or returning from suspension, and the scholastic enhancement and supplemental instruction programs.

Office of Disability Resources (ODR)
19 Campus Avenue Building, 513-529-1541 (TTY accessible)

For students with physical disabilities, ODR ensures program accessibility and compliance relative to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. ODR coordinates accommodations through various campus and state agencies to provide services including, but not limited to, alternative formats for textbooks, route training, campus

transportation, sign language interpreters, Realtime captioning, modified housing, testing accommodations, priority scheduling, and access to telecommunications.

Instructors' Office Hours

Most instructors have regularly scheduled office hours to meet with students. These are usually posted outside their office doors and on the course syllabus. To make an appointment for another time, contact the instructor or department secretary.

Options for Receiving Credit

Note: Transfer credit information is in the Admission chapter.

College Level Examination Program (CLEP)

Contact Student Affairs (Warfield Hall, 513-529-4631) or Miami Hamilton Academic Advising and Retention Services (102 Rentschler Hall, 513-785-3129) for information about CLEP.

Credit is given for satisfactory scores on some CLEP Subject Examinations. Tests are scored by the Educational Testing Service, Princeton, New Jersey. Because there is a fee for each test (see the Fees and Expenses section), we encourage you to take them only if you have had the equivalent of a college course in the subject area.

Miami's Oxford campus operates a *closed* CLEP testing center, which means it offers these tests to Miami University students only. Miami's Hamilton campus operates an *open* CLEP testing center, which means tests are offered to university students as well as to members of the community who are not enrolled at Miami University. Miami's Middletown campus does not currently offer CLEP testing.

Score requirements or course credit may change, please contact Student Affairs for current information.

American Government: credit for POL 101 (3 hours) for score of 55.

Calculus with Elementary Functions: credit for MTH 151 (5 hours) for score of 50.

College French, Levels I and II: credit for FRE 201, 202 (6 hours) for score of 50.

College Level Spanish Language: credit for SPN 201, 202 (6 hours) for score of 66. For a score above 75, see the Spanish Department.

General Chemistry: credit for CHM 141, 142, 144, 145 (10 hours) for score of 52.

Introductory Psychology: credit for PSY 111 (4 hours) for score of 54.

Human Growth and Development: credit for PSY 231 (3 hours) for a score of 63.

Introductory Sociology: credit for SOC 151 (4 hours) for score of 55.

International Baccalaureate Program (IB)

Miami awards credit to IB diploma graduates for higher level subjects passed at a satisfactory level (minimum scores vary 5 to 7 by subject area). Standard levels are not awarded credit. Departments make the final determinations on credit.

Anthropology (acceptable score 5 or better)
Credit determined by department.

Biology (acceptable score 5 or better)
Credit for ZOO 116 (4 hours).

Chemistry (acceptable score 5 or better)
Credit for CHM 141, 142 (6 hours) and CHM 144, 145 (4 hours).

Economics (acceptable score 5 or better)
Credit for ECO 201 and 202 (6 hours).

English (acceptable score 6 to 7)
Credit for ENG 111 and 112 (6 hours).

French (acceptable score 5 or better)
Credit for FRE 101 and FRE 102 (8 hours).

Geography (acceptable score 5 or better)
Credit for GEO 121 and GEO 201 (7 hours).

History
Credit for HST 296 (3 hours) for score of 5 or better.
Credit awarded on an individual basis for selected upper-level courses for score of 6 or 7.

Latin (acceptable score 6 to 7)
Credit determined by department.

Mathematics (acceptable score 6 or better)
Credit for MTH 151 (5 hours).

Philosophy (acceptable score 6 or better)
Credit determined by department.

Physics (acceptable score 6 to 7)
Credit for PHY 181,182 (8 hours) and PHY 183, 184 (2 hours).

Psychology (acceptable score 5 or better)
Credit for PSY 111 (4 hours).

Spanish (acceptable score 6 to 7)
Credit for SPN 201 (3 hours).

Theatre Arts (acceptable score 5 or better)
Credit for THE 131, 191, and 200 (7 hours).

Visual Art (no credit awarded)

Department Proficiency Examinations

These exams may be offered each semester. Each department administers its own test, and credit applies toward graduation. You may take a proficiency examination during any semester or term in which you are enrolled. See the Fees and Expenses chapter for test charges.

To be approved for a proficiency examination, you must satisfy the department that you have a reasonable chance of passing it. Normally, these examinations are for courses below the 300 level, but they may be given for advanced courses with approvals of the department chair and the dean of the division in which the course is offered.

You may obtain credit or advanced placement, or both, by examinations in areas in which you have had adequate preparation. Credit earned is traditional credit and is not counted in the admissible 32 semester hours of nontraditional credit. No grades are awarded for proficiency examinations.

See departments listed below for specific information.

Comparative Religion: see department.

English: Submit a writing portfolio to the Composition Program in the department in the summer before your enrollment. For details about eligibility, requirements and deadlines refer to the Composition Program website at *http:www.units.muohio.edu/portfolio/*.

Latin: see department.

Mathematics and Statistics: offered in MTH 151, 222, 251; STA 261. Contact the MTH or STA department office. A group proficiency exam in MTH 151 is usually given during the first week of the first semester.

Placement Guides

Designed to help you choose your first course in the fields below, these guides describe the background necessary to enter courses at a certain level.

If you find that you have chosen a course that is too difficult, you can drop it (before the deadline to drop, listed in the Academic Calendar at www.units.muohio.edu/reg/calendars/index.php) and begin with an easier course in a later semester.

Algebra and Trigonometry

(See Mathematics and Statistics at the end of this chapter.)

MTH 102 Intermediate Algebra (3): not usually taken by business students. Algebra preparation for MTH 123. Students with no trigonometry background should consider following MTH 102 with MTH 104 despite losing duplicated credits.

MTH 104 Precalculus with Algebra (5): covers intermediate algebra and precalculus in one semester. Next course is MTH 151.

MTH 123 Precalculus (3): preparation for MTH 151. Intended for students with three years of college preparatory mathematics including some trigonometry.

Calculus

(See Mathematics and Statistics at the end of this chapter.)

MTH 151 Calculus I (5): for students who have had little or no high school calculus. This is the first semester in calculus sequence MTH 151, 251, 252.

MTH 153 Calculus I (4): for students with at least one semester of high school calculus including transcendental functions and strong precalculus backgrounds. In this case, the calculus sequence is MTH 153, 251, 252.

MTH 249 Calculus II (5): primarily for students who have AP credit for Calculus I. Limited to freshmen. Reviews concepts of limit, derivative, and integrals from Calculus I, then covers same content as MTH 251 Calculus II. This is the first semester of calculus sequence MTH 249, 252 that covers same topics as MTH 151 (or 153), 251, 252.

MTH 249H Honors Calculus II (5): Honors version of MTH 249. Admission requires honors standing or permission of instructor.

Chemistry

If you did not have chemistry in high school (or you have a very weak background), it is possible to take CHM 111 before taking the CHM 140 series, although this is not recommended.

CHM 111: for non-science majors; no previous chemistry necessary.

CHM 141R, 142, 144, 145: for students preparing for careers in health professions and sciences, engineering, or science teaching. No previous chemistry necessary. This is the recommended track for students with little or no chemistry background and/or a weak mathematics background.

CHM 141, 142, 144, 145: for students preparing for careers in health professions and sciences, engineering, or science teaching. Previous high school chemistry necessary.

CHM 141, 153, 142, 161: for students planning careers in chemistry who are considering graduate school. A high school chemistry course is necessary. You cannot receive credit for both CHM 144, 145 and CHM 153. These four courses are the required sequence for B.S. chemistry and biochemistry majors.

Foreign Language

Placement is based on: (1) high school preparation (typically, one year of high school equates to one college semester), and (2) results of placement testing administered by Miami University. You cannot take a foreign language course for credit at a lower level than you are prepared for. After being placed, you cannot skip a course in the sequence leading to 202.

If you intend to continue studying the same foreign language as in high school, you are required to take a placement exam for that language before you enroll. Placement exams for French, German, and Spanish are taken by freshmen during Summer Orientation; transfer students take them during transfer student advising in the summer. Results are immediately available at orientation for placement and advising. Continuing students wishing to enter a language sequence should take the placement exam and then seek advising before enrolling in a course.

For other languages, placement exams are taken at home by entering freshmen prior to Summer Orientation; transfer students in Latin and Russian take them prior to transfer student advising. Examinations are returned to Miami by mail; results are available at orientation for placement and advising.

There is no award of academic credit with placement tests.

101 LEVEL: for those beginning a new language.

102 LEVEL: for those who have successfully completed 101. Also for those whose placement exam scores indicate they are not prepared to enter the second-year level.

111 in German: review course for those whose placement exam scores indicate they are not prepared to enter second-year level. After completing 111, students enter 201.

111 in Spanish: intensive review course for those whose placement exam scores indicate they are not prepared to enter second-year level. After completing 111, students enter 201.

121 LEVEL: intensive review course offered in Latin for those whose placement exam scores indicate they are not prepared to enter second-year level. After completing 121, students enter 202.

201 LEVEL: for those who have successfully completed 102, SPN 111, or equivalent, or achieved an appropriate placement exam score.

202 LEVEL: for those who have successfully completed 121, 201, or equivalent, or achieved an appropriate placement exam score; this course fulfills the language requirement for the College of Arts and Science (CAS-A).

301 LEVEL AND ABOVE: for those who have successfully completed 202 or equivalent, or achieved an appropriate placement exam score. Any foreign language course at 300 level or above fulfills the language requirement for the College of Arts and Science (CAS-A), not including courses in translation.

Physics

PHY 101, 103, 111, 118, 121, 131, 141: general physics course. PHY 103 has a prerequisite; see course descriptions.

PHY 181, 182, 183, 184: calculus co-requisite course recommended for science, computer science, and engineering majors. Freshmen should enroll in PHY 181F, 182F. There is no physics prerequisite for 181, although concurrent registration in, or completion of, laboratory course PHY 183 is required. See course descriptions.

Mathematics and Statistics

Two placement tests are offered to Oxford campus students. (The regional campuses offer other standardized placement tests.) Test One must be taken before Test Two. Test One (precalculus) helps assess your readiness for calculus if you expect to take a mathematics or statistics course. Algebra, trigonometry, functions, and basic geometry are included on the test. Also take Test Two (calculus) if you have taken a semester or more of calculus, even AP calculus, during high school and expect to take a calculus course. Test Two is based on topics covered in Calculus I. More information about these tests is online (www.muohio.edu/mathstat/place.html) or available from a departmental adviser.

In the advising table below, I and II refer to Placement Tests One and Two, and I + II denotes the sum of your scores on I and II.

If you plan to	**and you have passed these high school classes**	**and have these scores on I and/or II**	**then take**
Take a calculus course	(a) a year of calculus, including log, exponential, and trig functions	I + II from 35 to 45	MTH 249 or 249H
	(b) at least one semester of calculus, with strong background in precalculus	I + II from 26 to 34	MTH 153
	(c) three and one-half or four years of math with trig but little or no calculus	I from 16 to 25	MTH 151
	(d) three or four years of math including some trig	I from 12 to 15	MTH 123
	(e) less than three years of math	I from 8 to 11	MTH 104
		I from 0 to 7	MTH 102
Take a noncalculus course, e.g. MTH 121 or STA 261	(a) three years of math, including two years of algebra	I from 12 to 25	MTH 121 or STA 261
	(b) less than three years of math	I from 0 to 11	MTH 102 or 104
Seek middle childhood licensure with a math concentration	(a) a year of calculus, including log, exponential, and trig functions	I + II from 35 to 45	MTH 249 or 249H
	(b) at least one semester of calculus, with strong background in precalculus	I + II from 26 to 34	MTH 153
	(c) three and one-half or four years of math with trig but little or no calculus	I from 16 to 25	MTH 151
	(d) three or four years of math including some trig	I from 12 to 15	MTH 123
Seek licensure in early or middle childhood, not concentrating in math	(a) three years of math, including geometry	I from 12 to 25	MTH 115
	(b) less than three years of math	I from 0 to 11	MTH 102

Since recommendations given above or online may not consider all information relevant to your situation, you should contact a departmental adviser if you have questions. The goal is to place you in a course with students of similar preparations.

To contact a departmental adviser via e-mail: *placement@notch.mathstat.muohio.edu*

Course Registration and Other Regulations

Office of the Registrar
102 Campus Avenue Building
513-529-8703
www.muohio.edu/registrar/

Academic Calendar

Important academic dates and deadlines are published in the Academic Calendar online at *www.muohio.edu/calendar*. Dates are subject to change without notice.

Miami ID Card

University registration includes the issue and validation of your student identification card. ID cards are issued in 119 Campus Avenue Building and in 111 Shriver Center.

Course Offerings

Course offerings and other registration information are available online through myMiami (*www.mymiami.muohio.edu*) (log-in required) and www.muohio.edu/registrar (log-in not required). Course offerings and availability are subject to change without notice.

Registering

New undergraduate students are required to meet with an academic adviser to select their required courses and electives. First year students register during Summer Orientation in June and July. Continuing students are encouraged to contact their advisers for further academic and career counseling before registering.

You register for classes at Miami University online through myMiami/BannerWeb (*www.mymiami.muohio.edu*) and receive immediate confirmation of your schedule. You can register, confirm and change your schedule through BannerWeb only on the assigned days and at the assigned times.

Before you can register, the system will ask you to supply emergency contact information. The university requires that you provide emergency contact information so that we may readily notify a family member or significant other in case of an emergency or should a critical matter arise.

You are required to provide your **local contact information** and the name of a **family member/guardian/spouse or another significant person and their contact information**. You will be delayed in registering for your next semester courses until you enter the requested information.

The deadline to complete registration and payment is the fifth (5th) day of fall or spring semester, and the third (3rd) day of each summer term. Registering late will limit your available choices which may prevent you from getting all the required classes you need.

Registration and Graduate Credit

Before registering for courses, consult your adviser to make sure that you are meeting your degree requirements.

Minimum and Maximum Registration

The maximum number of graduate credit hours that a graduate student can register for in a regular semester is 16. Graduate students are limited to no more than eight credit hours per summer session (except for dissertation and thesis credits) and no more than 12 credit hours in two overlapping summer sessions. Permission of the dean of the Graduate School is required during the first week of classes in order to register for more credits.

It is recommended that a student employed full-time may register for a maximum of six graduate credit hours.

Graduate assistants, doctoral associates, and teaching associates with duties of 18 to 20 hours per week must register for at least 10 graduate semester hours and may register for as many as 14 total (undergraduate and graduate) hours per semester.

Modified graduate assistants with duties of eight hours per week must register for at least 12 graduate credit hours per semester and may register for as many as 16 total (undergraduate and graduate) hours.

Grant-in-aid recipients must register for at least 12 graduate hours during each semester and must register for six graduate hours in a single summer term or 12 graduate hours in more than one summer term.

A student holding a dissertation scholarship must register for 16 hours of graduate credit per semester.

Change of Status or Program

Any change of graduate standing, such as moving from non-degree to degree status, must be approved by your major department or division and the Graduate School. To change from continuing non-degree graduate status to regular or conditional standing, you must reapply to the Graduate School.

Students with a grade point average below 3.00 who wish to change majors and/or degree programs must have approval of the Student Petitions Committee of the Graduate Council.

Transfer Credit

Credit for grades of B or better earned at other accredited graduate schools may be applied toward a graduate degree at Miami University. Transfer credit will not be granted for grades of B- or less. "Credit" or "pass" grades are accepted only if approved by the Student Petitions Committee of Graduate Council.

Extension or correspondence work is not accepted for credit.

Transferred courses may not exceed the age limit of five years for the master's degree and seven years for the doctorate.

To transfer credit, first obtain an official transcript from your other institution (if your adviser does not already have one), and then consult with your adviser. If transfer of credit is recommended, your adviser will send a memorandum of recommendation, with your transcript, to the Graduate School. The dean of the Graduate School will approve your transfer of credit if the above criteria are met, and the Registrar's office will post the transferred credit to your Miami record. Grades of transferred credit are not posted to a Miami record or counted in a grade point average.

Changing Your Courses

You have several opportunities to change your course schedule; days and times are available through BannerWeb. Change of Schedule through BannerWeb ends on the fifth day of the fall and spring semesters, and on the third day of each summer term.

Adding a Course

You can add open courses to your schedule online through BannerWeb during the Change of Schedule period. After Change of Schedule ends, you can only add a course if an exception is made for you by the instructor and the department chair. (Any instructor can refuse to accept a student into a class if, in the instructor's opinion, too much subject matter has already been covered.) You must have signatures from the instructor and the department chair on the Change of Schedule form.

Registration for independent study at the **graduate** level (independent reading, special topics, special studies, special problems, and directed study) should be completed before Change of Schedule ends. Independent study courses may not be added after the completion of 40 percent of the term.

Dropping or Withdrawing From a Course

You must officially drop each unwanted course. Nonattendance does not drop a course. You can drop a course online through BannerWeb during Change of Schedule, which ends the fifth day of each semester and the third day of each summer term. After Change of Schedule ends, you must have the instructor's signature to drop a course. Prior to dropping or withdrawing from a course, you should consult with the instructor and academic advisor.

Dropping or withdrawing from a course is a formal administrative procedure. Merely ceasing to attend class does not constitute formal dropping or withdrawal from the course. When you stop attending a course, but remain formally registered, you will be assigned a final failing grade for that course and held responsible for all associated course tuition and fees.

After Change of Schedule ends, you can still drop a full-semester course without a grade until the third week of the semester (for summer and sprint courses, before 20 percent of the class meetings have elapsed).

If you withdraw from a course between the third and ninth weeks of the semester (or between 20 and 60 percent of the class meetings), you will be given a grade of W. A grade of W is not calculated in your grade point average.

After the ninth week (or 60 percent of the class meetings), you may not withdraw from a course unless a petition is approved by the Interdivisional Committee of Advisers for undergraduate students and the Graduate Council for graduate students. If the petition for withdrawal is approved, you will be withdrawn from the course with a grade of W. If the petition is not approved, you will be expected to remain in the course.

Course Section Change

To change sections online, you must drop the section in which you are currently enrolled, then add the new section. Because many students may be competing for available space in the same course, there is a significant risk that you will lose your place in the course altogether.

Credit Hour Loads for Undergraduate Students

To be considered a full-time student, you must register for at least 12 hours. Permission of the student's divisional dean is required to take more than 20 hours in a semester or more than eight hours in a summer term. This permission must be obtained *before* you register.

Repeating a Course

You can repeat any course for which you have not received credit. You can also repeat a course once for which you have received credit (the hours will count only once toward your graduation requirements, but both grades will be figured into your grade point average).

Some departments offer courses that can be repeated up to a maximum number of hours—courses, for example, in which the content varies from term to term.

For information, on repeating credit/no-credit courses, see the Grades section.

Undergraduate Student Classification

Freshmen: Students who have earned fewer than 30 semester hours.

Sophomores: Students who have earned 30 semester hours.

Juniors: Students who have earned 64 semester hours.

Seniors: Students who have earned 96 semester hours. You need at least 128 semester hours to graduate.

Graduate-Level Courses for Seniors

Seniors at Miami or juniors in the Honors & Scholars program may apply for permission to take 500/600-level courses, normally open only to graduate students, for undergraduate or graduate credit.

To apply for permission, you must have senior status toward a bachelor's degree or be a junior in the Honors & Scholars program, a cumulative grade point average of 2.75, and a grade point average of 3.00 in the concentration area of the graduate course. Approval must be granted by your academic adviser, the instructor for the course, and the Graduate School. Courses at the 700-level are for graduate students only.

You must complete the form "Permission for Undergraduate Students to Enroll in Graduate Courses," available at the Graduate School, and return it no later than Friday of the first week of classes in the semester.

Up to 10 semester hours may count toward a graduate degree if the courses are taken for graduate credit. Courses taken for graduate credit cannot count toward requirements for a bachelor's degree.

Greater Cincinnati Consortium

Full-time Miami students can take courses through the Greater Cincinnati Consortium during the academic year and summer. This association can provide courses that are not generally available at the institution where the student is enrolled.

Members of the Cincinnati Consortium include the Art Academy of Cincinnati, Athenaeum of Ohio, Chatfield College, Cincinnati Bible College and Seminary, Cincinnati State Technical and Community College, College of Mount St. Joseph, Hebrew Union College, Miami University, Northern Kentucky University, Thomas More College, The Union Institute, University of Cincinnati, Wilmington College, and Xavier University.

The Registrar's office can provide you with additional information.

Other Regulations

Application for Graduation

To graduate, whether or not you plan to attend the ceremony, you must submit an application and pay a fee. If you earn more than one degree, you must pay a graduation fee for each. (Applications for graduation are available on Bannerweb.) After your application is processed, your account will be assessed the appropriate fee, and you will be billed by the Bursar's office.

You are encouraged to apply for graduation at least a semester in advance. This way, routine checks can be made in time to inform you of any problems in meeting your degree requirements.

Applications should be received no later than 30 working days before commencement.

If you apply for graduation and then do not qualify for the degree, you must notify the Commencement Office of the date you intend to finish your requirements. All deadlines applicable to first-time applications apply to reapplications.

Changes in Policy

For complete information on changes in any academic policy on student conduct, grievance procedures or petitions consult the *Student Handbook* (*www.muohio.edu/handbook*) updated each year in August or *A Handbook for Graduate Students and Faculty*. You are responsible for knowing about any changes in these policies that may affect you.

Electronic Directory

Miami's electronic directory, like those of other institutions, is accessible worldwide across the Internet. To preserve the privacy of students, faculty, and staff, the following data is **only accessible within the Miami University community:**

- **University-supplied data:**
  Spouse name (staff, faculty; if authorized)
  Division (staff, faculty)
  Office address (staff, faculty)
  Home address and phone number
  (students, staff, faculty; if authorized)
  School address and phone number (students)
- **Optional individual-supplied data:**
  Pager e-mail address and phone number
  Mobile phone number
  Office hours
  High schools attended
  Other colleges attended

FERPA Release and Directory Restriction

Under provisions of the Family Educational Right to Privacy Act (FERPA, Buckley Amendment), all students are able to request exclusion from the university's electronic directory.

All first time Miami students are included in the electronic directory beginning August 1st, but the student can request exclusion from the electronic directory by filling out a form available at the Registrar's Office.

Freshman may do so at freshman orientation or any time prior to July 15; continuing students may do so at any time during his/her enrollment at Miami.

Exclusion requests are reflected in the electronic directory approximately 24 hours after being processed by the Registrar's office. Emergency exclusions, requested by Miami University Police or the Office of Student Affairs, are processed as soon as possible by the IT Services.

Right to Privacy and Access: Student Records

The Registrar's office maintains records on all Miami students that include academic and demographic information. To protect our students' privacy, and to ensure that their records are accessible to them, Miami has designed a policy for maintaining and administering student records.

Miami's policy is in compliance with the Family Education Rights and Privacy Act of 1974 (FERPA). The complete policy is included in the online *Student Handbook* at *www.muohio.edu/handbook*, but general guidelines are listed here. More information on FERPA is available from the Registrar's Office.

1. Educational records are defined as material that is directly related to the student that is maintained by the institution. These may include academic records, advisement records, discipline records, and placement records.
2. You have the right of access to your records, with certain exceptions, after presenting proper identification (your student ID card).
3. After reviewing your files, you have the right to challenge anything you perceive to be inaccurate or misleading. See the online *Student Handbook* for the procedure for a hearing.
4. The university has a responsibility to protect students from the release of information about them to others without the student's consent. An exception to this is public information or directory information, which may be released without the student's consent. This includes, but is not limited to, the student's name, age, date of birth, home and local address, telephone number, dates of attendance, current enrollment, degrees and awards, participation in officially recognized activities and sports, and weight and height of members of the athletic teams.
5. If you do not want any information about you disclosed, you can restrict it by notifying the Registrar's office in writing. **This must be done each academic year.**

Registration Glossary

Academic action: Academic actions are defined as academic warning, removal of academic warning, academic probation, removal of academic probation, academic suspension, and academic dismissal. Academic actions are taken at the end of each fall and spring semester, and at the end of the summer term. Any student with a cumulative g.p.a. of less than 2.0 is subject to academic action, regardless of the number of hours taken in any semester or summer term.

Academic record: A record of courses taken, grades received, and degrees earned by each student while attending Miami. It includes transfer credit, advanced placement credit, and other credit awarded or earned.

Accelerated course: See sprint course.

Admission prerequisites: See "High School Preparation" in the Admission chapter. If you did not complete these units in high school, you must complete additional courses at Miami. These courses count toward graduation and many fulfill other requirements. You must complete these units within your first 64 semester hours (normally, during your first two years). Questions about prerequisites should be directed to the Office of Admission.

Associate's degree: Two-year degree, generally offered only on regional campuses.

Audit: You attend classes, but do not receive credit or a grade. The instructor may require you to take exams and participate in class discussion. Since not all courses can be audited, you must have the instructor's written permission to audit. A course can be changed from credit to audit or audit to credit up to 60 percent of the class meetings. See the Grades chapter for more detail.

Bachelor's degree: A four-year degree. Basic requirements include: (1) at least 128 semester hours—32 must be from Miami; (2) at least a 2.0 cumulative g.p.a.; (3) fulfillment of the Miami Plan; (4) fulfillment of divisional and major requirements.

Cancellation: If you do not pay your fees on time, your schedule will be cancelled. You will need to re-register.

CAS-A, B, etc: Abbreviations for sections of the College of Arts and Science requirement. See the College of Arts and Science chapter.

Certificate program, graduate: A specialization program that enhances a graduate degree. Available to students who have been admitted to the Graduate School and have met program prerequisites.

Certificate program, undergraduate: Program that requires about half the amount of course work as an associate's degree.

Change of schedule (or drop/add): Dates and times when you can make changes in your semester courses. Consult the academic calendar for specific dates and times.

Class standing: Freshmen have earned 0-29 semester hours; sophomores have earned 30-63 semester hours; juniors have earned 64-95 semester hours; seniors have earned 96 or more semester hours.

Closed: When maximum enrollment in a course has been met, no more students can be accommodated.

Concurrent course: A course that must be taken during the same semester as another course because of linked content. Concurrent courses are indicated in the *General Bulletin* course descriptions.

Co-requisite: A course that must be taken prior to or during the same semester as another course because of linked content. Co-requisites are indicated in *General Bulletin* course descriptions.

Course level: (See Course number below.) 100-level courses are generally introductory; 200-level more advanced; 300 and 400-levels for juniors and seniors; 500 and above for graduate students.

Course modifier: A letter or numeric symbol designating a different content within a general course.

Course number: Three-digit number that follows a departmental abbreviation used to identify a course, for example ENG 111. The course number is an indication of course level.

Course reference number, see CRN.

***Course Schedule*:** A newspaper guide to classes offered each semester. Published by the Registrar's office, it contains the academic calendar and lists courses as well as sections, times, instructors, course codes, etc.

Credit/no-credit: No grades are received for these courses. You will get credit for a C or better; you do not get credit if your grade is lower. Credit/no-credit courses are not figured in your g.p.a. You can only take one-fourth of your course work on credit/no-credit basis, and usually you cannot take courses in your major this way. Freshmen may register for courses on a credit/no-credit basis, providing they are concurrently enrolled for 12 semester hours for grades. After 20 percent of the class meetings, you cannot change from credit/no-credit to a letter grade or from a letter grade to credit/no-credit. See the Grades chapter for more detail.

CRN (Course Reference Number): A five-digit code used to identify each section of a course for registration. It is in effect only for the current term.

DARS (Degree Audit Report): A report of your completed course work and current registration matched with degree requirements of your declared major; it identifies deficiencies and lists courses to satisfy specific requirements. DARS are available online at *http://bannerweb.muohio.edu/*. You can also request a DARS at the Registration Service Center in the Campus Avenue Building.

Degree Audit Report, see DARS.

Division: An academic part of the university with its own requirements. Miami has seven divisions: College of Arts and Science, Richard T. Farmer School of Business, School of Education and Allied Professions, School of Engineering and Applied Science, School of Fine Arts, School of Interdisciplinary Studies, and Graduate School.

Drop/add: See Change of Schedule.

Force-add: Permission to add a course that is closed. A form, available from department offices, must be signed by the instructor and chair.

Hour: See Semester credit hour.

Incomplete grade: Unfinished course work indicated by an I and computed as an F until you finish for a grade. You must have the instructor's permission; you have 12 weeks to complete the work after your next enrollment.

Lab: Laboratory.

Late registration: Late registration is held just before the new term begins for new students who did not register early.

Late start classes: Usually graduate education courses that start about one week later than normal, therefore they meet less than a full 15-week term (Fall Semester only).

Lec., Lab.: Lecture and laboratory abbreviations in course descriptions to indicate contact hours in each (for example, 3 Lec. 1 Lab.).

Major: Your primary field of study, such as botany, economics, etc.

Miami Plan (MP): Miami's liberal education requirement. See the Miami Plan chapter.

MPC: Miami Plan Capstone Experience abbreviation used in course descriptions. Indicates that the course fulfills that requirement.

MPF: Miami Plan Foundation course abbreviation used in course descriptions. Indicates that the course fulfills a part of that requirement. Additional abbreviations to MPF (for example,

MPF IIA, IIIB) indicate which foundation area(s) that course fulfills.

MPT: Miami Plan Thematic Sequence abbreviation used in course descriptions. Indicates that the course fulfills a part of that requirement.

MUNet password: By default, your password is the month and day of your birth and the last four digits of your Social Security number in the format *mmddnnnn*. Please include the leading zero for single digit months and days. For example, a birth date of March 1 with Social Security number 123-45-6789 would have a default password of "03016789". For security reasons, you will be required to change your default password to another value the first time you login to myMiami. In addition, to create a new password, you will have the opportunity to create a Secret Question/Answer that can be used in the event that you forget your password. You will then be required to change your password every six months. To change your password, go to *www.muohio.edu/password*. For login problems, contact the IT Services Support Desk through myMiami at *www.mymiami.muohio.edu*

myMiami: Miami University's web portal. myMiami contains links to BannerWeb, the online campus directory, Blackboard, Knowledge Base, and other Miami services, as well as information about university offices, activities and news and events. myMiami can be accessed from anywhere in the world at *www.mymiami.muohio.edu* using your Unique ID, MUNet password, and web browser.

Nontraditional credit: College credit given for a nonacademic learning experience, such as knowledge you have acquired from a military service or your own study. For information, contact the Registrar's Office.

Open course: One that can accommodate more students. Open courses are available online at myMiami (*www.mymiami.muohio.edu*).

Password, see MUNet password.

Placement exams: Offered in foreign languages, mathematics, chemistry and physics to help you enroll in an appropriate first course for your skills level.

Prerequisite: Course(s) you must complete before enrolling in a more advanced course. This is indicated in a course description.

Proficiency exams: Tests used to obtain credit in subjects for which you have adequate preparation. Each department administers its own test, and credit applies toward graduation. You must pass the test with a C or better to earn credit. You are charged for the tests according to credit hour; see the Fees and Expenses chapter.

Section: One class of a course. Courses with large enrollments are divided into sections. Sections are identified by letters, for example ART 171A, ART 171B. Each section has a unique CRN.

Semester credit hour: Unit used to measure course work. The number of credit hours is usually based on the number of hours per week the class meets; for example, a three-hour course typically meets three times a week for 50 minutes each time. One credit hour is usually assigned for two or three hours in laboratory and studio courses.

Sprint courses: Courses that meet for less than the full 15 week term. The sprint parts of term are Q, T, U, V, W, X, Y, or Z. Sprint course meeting dates are printed in the schedule.

Time conflicts: Registration/Change of Schedule checks for time conflicts and will not permit you to add courses that meet at overlapping times.

Transcript: A copy of your academic record.

Unique ID: Every student, faculty, and staff member has been issued a Unique ID to identify them in the processing of university information. It consists of the first six letters of the last name, followed by the first and middle initials. Some Unique IDs end in a number rather than a middle initial because common last names and initials mean that a particular Unique ID is already in use. The Unique ID is not case sensitive. Both your Unique ID and MUNet password are required to login to Miami's web portal, myMiami.

Variable credit hours: Range of credit hours for courses (usually independent study, special topics, thesis hours). Indicated with cumulative maximum in course description; for example (2-8; maximum 16).

Grades

Office of the Registrar
110 Campus Avenue Building
Phone: 513-529-8711
www.muohio.edu/registrar/

The Grading System

Grades for all students are reported to the Office of the Registrar at the close of each semester or term. Miami uses the following grading structure on a 4.00 scale:

Grade		Points Per Semester Hour
A+		4.00
A	Excellent	4.00
A-		3.70
B+		3.30
B	Good	3.00
B-		2.70
C+		2.30
C	Satisfactory	2.00
C-		1.70
D+		1.30
D	Poor	1.00
D-		0.70
F	Failure	0.00
I	Incomplete	0.00
WF	Withdrawal Failing	0.00

Other grade symbols include:

IG or IGY	=	Incomplete: calculates as a non-punitive grade at the time of recording. The student has one academic semester following the recording to complete the academic work. Please check the Academic Calendar for the deadlines per term. After the deadline has passed with no grade change being recorded, the "IG" will convert to a grade of F. The "IGY" will convert to Y (no credit).
IU	=	Incomplete work at the undergraduate level; not included in the calculation of grade point average.
IUY	=	Incomplete work at the undergraduate level in a credit/no-credit course; not included in the calculation of grade point average.
L	=	Audit; no credit points.
N	=	No grade submitted by the instructor.
P	=	Passing; carries no credit points (used for student teaching, thesis hours, dissertation hours).
S	=	Satisfactory progress; carries no credit points and not included in the calculation of grade point average; (used for courses in research, independent reading, special topics courses, thesis hours, dissertation hours, and undergraduate honors); changes to a final grade when the project is completed.
U	=	Unsatisfactory progress; carries no credit points and not included in the calculation of grade point average; (also used for special projects as above); changes to a final grade when the project is completed.
W	=	Withdrawal; assigned to a student who officially withdraws from the University or from a course. W carries no credit points and is not included in the calculation of grade point average.
WP	=	Withdrawal passing
X	=	Credit in a course taken credit/no-credit in which a grade of C or better was earned in a undergraduate course or in which a grade of B was earned in a graduate course; carries no credit points and not included in the calculation of grade point average.
Y	=	No credit in a course taken credit/no-credit course in which a grade of C- or less was earned in an undergraduate course or in which a B- or less was earned in a graduate course; carries no credit points and not included in the calculation of grade point average..
Z	=	Course grades preceded by Z indicate the Fresh Start policy has been applied.

Calculating Your Grade Point Average

Add the hours you have attempted for a grade in the semester. Then figure the point value of your grades by multiplying the point value of the grade by the number of hours in the course. Divide the number of points by the number of hours; this is your g.p.a.

Course	Hours		Grade		Points
ENG 111	3	x	C (2.00)	=	6.0
PSY 111	4	x	B (3.00)	=	12.0
SPN 101	4	x	B (3.00)	=	12.0
ZOO 115	4	x	B+ (3.30)	=	13.2
PHS 170A	2	x	A (4.00)	=	8.0
TOTAL	17				51.2

51.2 divided by 17 = **3.01** g.p.a.

To figure your cumulative g.p.a., divide total points for all terms by the total number of credit hours you attempted for a grade. Grade point averages are truncated to the second decimal place.

Audits

With permission of the instructor, you can audit any course. The instructor establishes the requirements for auditing a course, such as taking exams and participating in class activities. An instructor may drop an auditing student at any time through the last day of classes if the student is not fulfilling the course audit requirements.

A course can be changed from credit to audit or audit to credit through the end of the first 60 percent of the course meetings (see the academic calendar).

Audit courses are not counted in the enrollment status or maximum registration limits. An audit course is charged at the same rate as a credit course.

Credit/No-Credit

The idea behind the credit/no-credit grading system is that students should be able to sample courses in many areas of study with relative freedom, without worrying too much about grades.

If you take an undergraduate course on a credit/no-credit basis, you receive credit for a grade of C or better; if your grade is C- or less, no credit is awarded. At the graduate level, a grade of B or higher is required to receive credit. Credit/no-credit courses are not figured in your grade point average.

No more than 25 percent of your total semester hours earned at Miami can be earned in courses taken on a credit/no-credit basis. Freshmen must be registered for at least 12 hours of courses for grades before taking a class on a credit/no-credit basis. Students on academic probation cannot take any course on a credit/no-credit basis.

Usually, you cannot take a course that counts toward your major or minor on a credit/no-credit basis. Some departments, however, may make exceptions for specific courses. If you are planning to go to graduate or professional school, you should carefully consider which courses you take credit/no-credit. Your adviser can help you decide.

You can change a course from a grade to credit/no-credit, or vice versa, before the deadline. The deadline is three weeks or after completion of 20 percent of the classes. (See the academic calendar.)

You cannot take a course on a credit/no-credit basis if you have already earned credit in the course. Likewise, you cannot take a course for a grade that you have received credit for previously.

Class Attendance

You are expected to attend every class for which you are registered.

A department may drop a student from a course if the student misses the first class meeting unless the student notifies the instructor or department by the end of that day (11:59 p.m.) of an intention to take the course. When possible, instructors and departments will reinstate students who, for reasons beyond their control, were unable to contact the instructor or department by the deadline.

If your instructor notifies the Registrar's office that in his or her opinion you have missed too many classes, you can be dropped from the course with a grade of F. If this occurs, the instructor must notify you in writing.

Do not assume that a department will automatically drop you from a course. You must take responsibility for dropping a course.

Incompletes

If you cannot finish the work for a course by the end of a term, with your instructor's permission you can take an incomplete. This is an agreement between you and your instructor that you will finish your course work. For policies regarding incomplete grades and their removal, see *The Student Handbook* at *www.muohio.edu/handbook*.

Withdrawal from the University

If you withdraw from the university, you must file a form, signed by the appropriate authority, with the Registrar's office. You can withdraw without grades during the first three weeks of the semester or during the first 20 percent of a summer term.

If you withdraw after the third week of the semester (after 20 percent of class meetings), you will receive grades of W (withdrawal), excluding completed or not yet begun sprint courses. (For a completed sprint course, you will receive the actual grade earned in the completed sprint).

If you withdraw after the ninth week of the semester (after 60 percent of the class meetings) and you wish to re-enroll, you must submit a petition for re-enrollment to the Interdivisional Committee of Advisers.

If you are withdrawing because of medical reasons, consult Appendix Z of the *Student Handbook* at *www.muohio.edu/handbook*.

For information on refunds, see the Fees and Expenses section.

Academic Warning, Probation, Suspension, and Dismissal

These are actions taken on undergraduate students by the Registrar when grades fall below an acceptable level at the end of a semester or a summer session.

Academic Warning

An undergraduate student who earns a cumulative g.p.a. less than 2.00 during his or her first semester at Miami University will be placed on *academic warning*. Excluding a student's first semester (per above), in all subsequent semesters an undergraduate student with fewer than 16 cumulative g.p.a. hours who earns a cumulative g.p.a. lower than 2.00 is placed or continued on academic warning. If an undergraduate student on academic warning has a cumulative average of 2.00 or better, the student is removed from academic warning and placed in good standing.

Academic Probation

An undergraduate student with 16 or more cumulative g.p.a. hours is placed on *academic probation* at the end of any semester or summer session in which his or her cumulative average is lower than 2.00. If an undergraduate student's cumulative average is 2.00 or better, the student is removed from academic probation and placed in good standing.

Continued on Academic Probation

An undergraduate student with 16-29 g.p.a. hours who is on academic probation and who has a cumulative average lower than 2.00 is *continued on academic probation*. An undergraduate student with 30 or more g.p.a. hours who is on academic probation and who has an average for a semester or summer session of 2.00 or better, but has a cumulative average lower than 2.00, is continued on academic probation.

Academic Suspension

An undergraduate student with 30 or more g.p.a. hours who is on academic probation will be *suspended* if his or her average for a semester or summer session is lower than 2.00. The period of suspension is one semester and a summer. The period of suspension is two semesters for students suspended at the end of summer session.

Academic Dismissal

A second academic suspension for low scholarship constitutes an *academic dismissal*. The period of academic dismissal is two calendar years and is usually considered a permanent action.

You can petition for an exception to academic suspension or academic dismissal. Freshmen should consult their freshman adviser or commuter adviser about the petitioning process. Upper-class students can get a petition from their divisional dean. These petitions are considered by the Committee of Advisers in your academic division.

All decisions on petitions are reviewed by the Interdivisional Committee of Advisers, which has the authority to affirm or reverse the decision.

Scholastic Requirements for Graduate Students

You must maintain a minimum grade point average (gpa) of 3.00 in both your cumulative gpa and your major field. Departments may have higher standards.

A graduate student whose cumulative gpa falls below 3.00 (not including incompletes) will receive a warning letter and will be allowed to register for one semester beyond the term in which the unsatisfactory gpa resulted. If at the end of the additional semester, the cumulative gpa remains below 3.00, the student may not register for any further graduate credit at Miami University. Appropriate adjustments are made for a student enrolled on a part-time basis.

Note: To be eligible to take a final examination for any graduate degree, a graduate student must have a 3.00 gpa or better and may not have grades of incomplete.

Re-Enrollment

Former students who left the university in good standing may apply for re-enrollment through the Office of the Registrar. Students who have been suspended, dismissed, or have a financial, medical, or disciplinary hold also apply through the Office of the Registrar. Apply for re-enrollment at least 30 days before the beginning of the term that you intend to enroll. Information is available at *www.muohio.edu/registrar/.*

Returning students whose degree programs have been discontinued should consult with their academic departments or divisions.

Fresh Start Policy

Fresh Start Policy is designed to help students return to good academic standing after an absence of at least two calendar years.

Students who have been academically suspended or dismissed are eligible for Fresh Start status. Other students who have left the university without being suspended or dismissed but who believe their past academic record suffered due to extenuating circumstances may petition their Divisional Committee of Advisers after a two-year absence. Credit earned from other institutions during the two-year period will not be accepted for transfer credit. For more information about Fresh Start Policy, see *The Student Handbook* at *www.muohio.edu/handbook* or contact the Office of the Registrar at 513-529-8703.

Fees and Expenses

Office of the Bursar
107 Campus Avenue Building
TTY accessible: 513-529-8700
www.muohio.edu/bursar

Fees and Expenses

Note: All fees and charges are subject to change without notice. For current information on tuition and fees, visit the Bursar's website at ***www.muohio.edu/bursar***.

Estimated Fees and Expenses, 2010-2011

Note: 2010-2011 fees will be finalized in July 2010. All fees and charges are subject to change without notice.

For complete information, please visit *www.muohio.edu/bursar/fees.*

Important: You must be covered by health and accident insurance. Your Bursar account will automatically be charged on your fall semester invoice for Basic Coverage Student health and accident insurance provided by the Maksin Group through the Health Services Center at 513-529-3000. If you do not need the insurance, you can complete a Waiver Form online and your Bursar account will be credited. You can purchase additional coverage by enrolling in Maksin's Comprehensive Plan.

Summer Session

Visit the Miami Summer Session website for more details at *www.units.muohio.edu/lifelonglearning/summer* or *http://www.units.muohio.edu/bur/.*

Freshmen

When you are accepted, you must submit the following fee and deposit with your housing application:

Admission Fee	$95.00
Confirmation Deposit	$330.00
Total	**$425.00**

If you attend Miami and fulfill your housing contract requirements, the confirmation deposit portion is retroactively applied toward your final term fees; you will be refunded any remaining credit.

Paying Your Fees

Fees are due before the semester begins. You must pay by the deadline printed on your eBill; otherwise your schedule may be cancelled and a late payment fee will be assessed.

Late Payment, Late Registration

Late payment fee	$150.00
Late registration fee, per calendar week	$27.00

Late Fees on Past Due Accounts

The Miami University Board of Trustees authorizes charging late fees equal to the then current prime rate plus 3 percent on charges that are not paid within 90 days of the due date. Full collection costs may also be charged if it becomes necessary to send a past due account to a third party collection agent.

Financial Obligations

The Board of Trustees authorizes the Bursar to restrict any services, including release of all academic records of a student or former student (e.g., diploma and transcripts), and registration for future semesters, until any past due amount owed to the university, including, but not limited to, fees, tuition, charges, fines, and loans due to the university, is paid in full. Past due means unpaid for 60 or more days after the due date, except that an account paid with a bad check is past due on the day the check is returned from the bank.

Other Charges

Audit Courses

These courses are charged at the same rate as credit courses.

Automobile Registration/Parking Permits

Automobile registration requirements and parking permit fee information is available online at the Parking and Transportation Services Web site (*www.muohio.edu/parking/*) or at the *Student Handbook* Web site *(www.muohio.edu/handbook/)*. A *Student Motor Vehicle and Bicycle Regulations* pamphlet, which includes a parking map, is available at the Parking Office, Campus Avenue Building, Room 128 (529-8535).

Books and Supplies

Students should estimate *at least* $1460 ($730 per semester) for books and supplies. Some programs (e.g., art, music, architecture) may require the purchase of additional supplies.

Chemistry

Students taking chemistry lab courses are assessed a $23.00 nonrefundable breakage fee.

Examinations (optional)

CLEP (College Level Examination Program)	$70.00 per test
Proficiency examination	$30.00 per test

Fee includes the first credit hour; add $30.00 for each additional credit hour if you pass.

Graduation

Certificate	$10.00
Associate, Bachelor, Specialist in education application	$35.00
Master's degree application	$35.00
Diploma replacement charge	$29.00
Doctoral degree application (includes diploma and hood)	$200.00

Miscellaneous

Bad check charge	$30.00
ID card replacement	$35.00

Special fees may be assessed for courses with unusual instructional expenses.

Refund of Charges

Questions about refunds should be directed to the Office of the Bursar.

The date when you withdraw or drop below full-time hours is the date that you officially withdraw or drop at the Office of the Registrar.

Dropped Workshops

To receive a refund for a workshop, you must drop the workshop no later than 4:30 p.m. the last business day before the workshop begins.

Dropped Courses

If a full-time student drops below 12 semester hours within the first five days of a semester, a full refund for those hours dropped will be credited. A drop in hours after the fifth day of a semester does not create a refund.

Drop unwanted courses. Do not assume that you will be automatically dropped for nonattendance.

Withdrawal from the University

If you withdraw during first or second semester, your fees will be refunded according to the following schedule.*

Withdrawal	Refund
Before 5 p.m. of the 5th day of the term	100 percent
Before 5 p.m. of the 8th day of the term	90 percent
Before 5 p.m. of the 20th day of the term	50 percent
Before 5 p.m. of the 30th day of the term	35 percent
Before 5 p.m. of the 40th day of the term	25 percent

After the 40th day of the term, you will not receive a refund.

If you withdraw, the room charge will be refunded according to the guidelines and schedule of refunds listed on the housing contract. There is no room refund after the fortieth (40th) class day of a semester. Meal plan fixed costs are refunded on a prorated basis, and the flexible spending account ending balances are refunded minus a $35 service fee.

If you **withdraw during a summer session,** your fees will be refunded as follows.*

Withdraw:	Your refund:
before 5 p.m. of the 3rd day of the term	100 percent
4th through 8th day of the term	50 percent
9th through 15th day of the term	25 percent

After the 15th day of the term, you will not receive a refund.

* When a student withdraws completely from the University during a semester, the Office of Student Financial Assistance is required to calculate, using a statutory prorata schedule, the amount of Federal Title IV financial aid the recipient has earned for the semester. This schedule is provided by the Department of Education. The amount of Title IV financial aid earned is based on the amount of time the student spent in academic attendance. The Office of the Registrar will inform The Office of Student Financial Assistance the date the student notified Miami of the intent to withdraw. This date is used to calculate aid eligibility. If you are thinking about withdrawing, please contact the Office of Student Financial Assistance for information on how it will affect your financial aid.

Qualifications for Ohio Residency Determined by The Ohio Board of Regents

Intent

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.

A complete description of the qualifications for Ohio residency is available online at *www.muohio.edu/registrar/student/residency*.

Financial Aid, Awards and Scholarships

Office of Student Financial Assistance
121 Campus Avenue Building
513-529-8734
www.muohio.edu/financialaid

Financial Aid for Undergraduate Students

There are many programs of assistance available from private, state, federal, and university funds. We are committed to helping students-within the limits of available funds-gain a college education even if their resources are limited. To receive consideration for most programs, students and parents must complete the appropriate forms. All information provided remains confidential.

Understanding which programs are available to students is complicated by the many state, federal, and local agencies that set regulations for the use of the funds. Students, as consumers of these funds, have the right under law to receive clear, accurate information concerning aid programs.

For more information, contact the Office of Student Financial Assistance or check online at *www.muohio.edu/financialaid/*.

Need-Based Assistance

The Office of Student Financial Assistance can assist students in obtaining need-based financial aid including: **grants**, awards based on financial need that do not require repayment; **loans**, awards that require repayment; **federal work-study**, part-time employment; and **scholarships**, for which some consider financial need as a secondary factor. Any awarded aid is combined to meet a student's financial need. The total amount of aid a student receives is based on a family's financial circumstances. To be considered for all need-based financial aid, new first-year students must complete the Free Application for Federal Student Aid (FAFSA) by **February 15** (for returning and new transfer students, the deadline is **March 15**). The FAFSA must be completed **every year**.

A student cannot receive any combination of aid, including loans, grants, federal work-study, and scholarships that exceeds the cost of attendance. If the total amount of financial aid exceeds the cost of attendance, the amount of aid will be reduced.

Grant Programs

Students with a high level of financial need are typically eligible for grants. Generally, a student receives grant funds in combination with loans and/or federal work-study. Students with a disability may also be eligible for grants from the Bureau of Vocational Rehabilitation.

The following grant programs are awarded on the basis of a family's financial circumstances; no repayment is required.

Federal Pell Grant - A federal grant for undergraduate students. The maximum grant in 2010-2011 was $5,350 per year for full-time students.

Federal Supplemental Educational Opportunity Grant (SEOG) - Federal grant administered by Miami University for high financial need students who are also eligible for Pell Grants. A limited number of these grants are given in combination with Pell Grant, loan, and/or federal work-study.

Ohio College Opportunity Grant (OCOG) - State grant assistance for Ohio resident undergraduate students with financial need enrolled at the Oxford campus. The OCOG award amounts for 2010-2011 was $888 for full-time students.

BVR/Bureau of Vocational Rehabilitation-Bureau of Services for the Blind - Federal and state grant program for undergraduate students with disabilities. Eligibility for funding is determined by the Rehabilitation Service Commission in the student's state of residence. Contact the state office in your state capital in order to begin the agency's application process as early as possible.

Loan Programs

Miami University realizes that managing the cost of education is a challenge for many families. In addition to grants, scholarships, and federal work-study funds, several loan options are available. Loans may make it possible for you and/or your family to borrow now and defer repayment until after you leave the university.

Federal Perkins Loan - Eligible undergraduate students filing the Free Application for Federal Student Aid (FAFSA) will be considered for a Federal Perkins Loan. **First priority is given to students who file their FAFSA application by Miami's priority filing deadline of February 15 for new freshmen and March 15 for returning students.** A Federal Perkins Loan is a low interest (5 percent), fixed rate, subsidized, deferred payment loan for students with exceptional high financial need. Students are required to begin making payments on their Perkins Loan nine (9) months after they graduate, leave school, or drop below half-time (6 credit hours) enrollment. The amount borrowed must be repaid within ten (10) years after the date repayment begins.

Federal Direct Stafford Subsidized and Unsubsidized Student Loans - Most students who file the Free Application for Federal Student Aid (FAFSA) are eligible for a William D. Ford Federal Direct Stafford Student Loan. Students may receive a Direct Subsidized Loan, a Direct Unsubsidized Loan, or a combination of both for the same academic year.

The Direct Subsidized Loans are awarded based on a student's financial need. With a Direct Subsidized Loan, the federal government pays any interest that accrues on the loan during authorized periods of deferment (postponement of repayment).

The Direct Unsubsidized Loans are awarded based on the cost of education less any other financial aid received. The federal government charges interest on the loan from the time the loan is disbursed until the loan is paid in full.

For 2010-2011 the annual borrowing limits (as defined by federal needs analysis formulas) for both the Direct Subsidized and Unsubsidized Loans were $5,500 ($3,500 may be in a subsidized loan) for freshmen, $6,500 ($4,500 may be in a subsidized loan) for sophomores, and $7,500 ($5,500 may be in a subsidized loan) for the remaining years of undergraduate study. Independent students may also qualify for an additional unsubsidized loan of $4,000 or $5,000 depending on their undergraduate status. Aggregate loan limits exist for both undergraduate and graduate study. The interest rate on both loans is fixed at the time the loan disburses. New loan interest rates for subsequent years are adjusted once a year on July 1. See www.muohio.edu/loans for the current interest rate.

Students are required to begin making payments on their Direct Loans six (6) months after they graduate, leave school, or drop below half-time (6 credit hours) enrollment.

Federal Direct PLUS Loans (for parents) - Federal Direct PLUS loans help parents pay their dependent student's educational expenses. Parents may borrow up to the cost of attendance minus

any other financial aid that the student receives. The federal government charges interest from the date of the first disbursement until the loan is paid in full. The interest rate on the loan is fixed at the time the loan disburses. New loan interest rates are adjusted once a year on July 1. See *www.muohio.edu/loans* for the current interest rate. The parent is responsible for repayment of this loan. Parents have the option of beginning repayment either 60 days after the loan is fully disbursed, or six months after the dependent student on whose behalf the loan was obtained ceases to be enrolled on at least a half-time basis (6 credit hours). However, interest begins to accrue 60 days after full disbursement. A FAFSA must be submitted in order to apply for a PLUS loan. For information on applying, please see ***www.muohio.edu/loans***.

Federal Work-Study (FWS) Employment

Federal Work-Study is a federal financial aid program that is awarded based on financial need computed from information provided on the Free Application for Federal Student Aid (FAFSA). If a student indicated an interest in work-study on the FAFSA and is eligible, the student's award package may include FWS. A student benefits from having Federal Work-Study because FWS earnings are not calculated in the Expected Family Contribution (EFC) on the following year's FAFSA. Additionally, employers often prefer hiring FWS students since a portion of the student's wage is paid with federal funds.

Summer Aid

Summer aid awards are based on any remaining financial aid eligibility from the current academic year. Aid eligibility will be determined once a student registers for summer courses, has a FAFSA on file, and has completed all outstanding requirements. Generally, students are only eligible for additional loan funds if they have the number of hours required to advance in grade level by the end of the spring semester. Students cannot use their Miami scholarships for summer sessions. If all federal student loan eligibility has been exhausted, the student may want to consider a Federal Direct PLUS loan or a private loan. Students who received a Pell Grant for the fall or spring semester may be eligible for an additional Pell Grant for summer study.

Aid for Another University or Study Abroad Program

If you are a degree-seeking student at Miami University and you wish to obtain aid to attend another university or a study abroad program during the fall or spring semester or summer session, or you are simultaneously enrolled at Miami and another institution, you must complete a Consortium/Contractual Agreement in order to receive financial aid and scholarships. The Consortium/Contractual Agreement is available at ***www.muohio.edu/financialaid***, click on 'forms.'

A completed Consortium/Contractual Agreement is needed if you are studying on a co-sponsored or approved study abroad program even if you do not intend to take a loan for the current term. Completing this agreement can be a very long process, and if at all possible, should be started at least two months prior to leaving the country. For important study abroad financial aid information, requirements, and deadlines, please see the 'Study Abroad' web page at ***www.muohio.edu/financialaid***.

Other Sources of Aid

State Assistance for Non-Ohio Residents

Most states have student assistance programs. Contact the student assistance agency in your state for information on what aid is available and how to apply.

Assistance for Veterans

Veterans Administration GI Bill information and certification of attendance forms are available at *www.muohio.edu/financialaid/veterans*. Veterans must **immediately** report any changes of their program (adds, drops, or withdrawal) to the Office of Student Financial Assistance while receiving education benefits from the VA. For further information about the GI Bill, visit *www.gibill.va.gov*. To determine GI Bill eligibility, contact the Department of Veteran Affairs at 1-888-442-4551.

Additional financial assistance through programs described in this section is available to most veterans.

Student Employment

The Department of Human Resources coordinates all student employment and student payroll registration. The two types of student employment at Miami are Federal Work-Study (FWS) and regular wage employment. Job classifications and wage rates are the same for each, but they are financed differently. University employers do their own hiring and students are responsible for finding a job. Information about campus employers, job postings, job classifications, and wage rates, is available online at *www.muohio.edu/studentemployment.*

Eligibility for Financial Assistance

Programs based on financial need, funded by state and federal aid programs, are administered by Miami. To be eligible for these programs, you must:

- Be a U.S. citizen or eligible non-citizen as defined on the FAFSA.*
- Be registered for Selective Service, if required.
- Be working toward a degree or certificate in an eligible program.
- Be able to demonstrate financial need (except for certain loans); see Applying for Assistance below.
- Maintain Satisfactory Academic Progress (SAP).
- Certify that you are not in default on any federal student loan or owe a refund on a federal grant.
- Have a valid Social Security number (unless you are from the Republic of Marshall Islands, the Federated States of Micronesia, or the Republic of Palau).
- Certify that you have not been convicted of an offense involving either the possession or sale of illegal drugs that occurred while receiving Title IV federal aid.
- Certify that you are not subject to an involuntary civil commitment following incarceration for a sexual offense (as determined under the FBI's Crime Reporting Program).
- Certify that you will use federal student financial aid only for educational purposes.

*__Note:__ International students who do not meet citizenship requirements for federal aid programs should contact the Office of International Education for information about financial assistance.

Applying for Assistance

Students must complete the Free Application for Federal Student Aid (FAFSA) each year to be considered for all need-based scholarships and financial aid. Complete the FASFA online at *www.fafsa.gov.* To be considered a priority applicant for all need-based financial aid, new first-year students must complete the Free Application for Federal Student Aid (FAFSA) by **February 15** (for returning students and new transfer students, the deadline is **March 15**). The FAFSA must be completed **every year**.

Determining Your Financial Aid Package

A student's financial aid package is processed in this order:

First, we estimate the student's Cost of Attendance (COA) based on his or her state of residence, the campus that will be attended, and the student's enrollment status. The COA includes instructional and general fees, room and board, fees for technology, Metro, facilities and include, but are not limited to

books and supplies, transportation, personal expenses, hygiene, recreation, and entertainment.

Second, after receiving the FAFSA data from the Department of Education, we use the reported Expected Family Contribution (EFC) that reflects the family's ability to contribute to educational costs to calculate the student's eligibility for need-based aid. We then subtract the Expected Family Contribution (EFC) from the Cost of Attendance (COA) to determine the student's financial need.

Finally, once financial need is determined, the student is considered initially for grant eligibility, then for loan and federal work-study, depending on the student's indicated preference on the FAFSA. Students who submit the FAFSA to the Federal Processing Center by **February 15** for new first-year students and **March 15** for returning students and new transfer students are the first groups to be awarded aid.

Applicants are ranked in order of greatest need and awards are made on the basis of the amount of financial need.

Students who are awarded scholarships will be sent a separate Scholarship Award Notification.

Students with significant changes in family income (death, loss of job, disability, divorce, or other extreme circumstances) after filing their FAFSA may request a re-evaluation of their application. Additional assistance may be awarded on the basis of available funds. Special Circumstance(s) Appeal Forms are available at the Office of Student Financial Assistance or online at *www.muohio.edu/financialaid* under "forms."

Standards of Satisfactory Academic Progress (SAP)

Basic Requirements

Students receiving federal financial aid are expected to maintain satisfactory progress toward their degree. Miami's Satisfactory Academic Progress Policy has the following components:

- A student must meet the academic requirements necessary to remain at Miami as a student as outlined in *The Miami Bulletin, General Edition* in the sections titled "Other Requirements," "Course Registration and Other Regulations" and "Grades."
- A student must pass *at least* 67 percent of the cumulative credit hours attempted.
- Undergraduate students must complete their Bachelor's degree program in twelve (12) semesters. This maximum time frame includes all prior terms of attendance at Miami and any other college or university whether or not they received financial aid.
- Graduate students must complete their Master's degree program in ten (10) semesters and their Doctoral degree program in fourteen (14) semesters.

How We Measure Progress

To measure a student's progress, the Office of Student Financial Assistance annually evaluates the student's academic record by calculating the credit hours attempted and earned and the number of full-time equivalent semesters the student attended. The review process begins at the end of spring semester for those students who have submitted a FAFSA. If a student submits a FAFSA at a later date, the academic progress review will be done at the time the FAFSA is received. We review academic progress each academic year by dividing the total number of credit hours a student passed by the total number attempted. The review is based on a student's entire enrollment history at Miami. If a student passed at least 67 percent of the cumulative credit hours attempted, the student's progress is satisfactory. If a student passed less than 67 percent of the cumulative credit hours attempted at Miami University, the student's progress is unsatisfactory.

Note: For the purpose of satisfactory academic progress, hours attempted are those hours for which a student received a grade of A, B, C, D, F, I, IG, N, P, S, U, W, X, and Y. If the student received the academic fresh start, all hours attempted prior to the fresh start are considered in the SAP calculation. If the student repeated courses, those hours will be included as additional attempted hours. If the student's grade changed, their eligibility for aid could be re-calculated based on an increase in earned hours. This would include having an "I" or "IG" changed to a passing grade.

At the end of each academic year, we also check to make sure the student has not exceeded the maximum term limit described above. Transfer courses will also impact a student's maximum time frame.

Federal Financial Aid Suspension and Termination

If a student's progress is unsatisfactory, the student's federal financial aid will be suspended. If a student fails to complete the degree program within the maximum time frame, the student's financial aid will be terminated. Students will receive written notification from the Office of Student Financial Assistance.

Satisfactory Academic Progress Appeal

Students may request a re-evaluation of their federal financial aid suspension or termination if they believe extenuating circumstances prevented them from making satisfactory progress.

To appeal, complete a Satisfactory Academic Progress Appeal Form and return it with all the required documentation to the Office of Student Financial Assistance.

Students should file their appeal within three weeks of the date they are notified that their aid is suspended or terminated. Students must submit appeals by the published date for the term in which they are appealing. We will notify a student of our decision within approximately three weeks after we receive the appeal and all documentation.

Regaining Eligibility

Students who do not submit a written appeal or if their appeal is denied, must complete course work at their own expense until they are once again maintaining a 67 percent cumulative completion rate.

Students may complete course work at Miami or at another institution, provided the credits can be transferred to Miami and they did not receive federal financial aid at the other institution while taking those courses. Any credits earned and transferred to Miami must have been earned after the Miami term(s) in which financial aid was denied.

When completing course work to regain eligibility, students may not repeat a course previously passed and may not test out of requirements in order to improve their completion percentage. However, any prior Incomplete (I) that is made up will count toward improving the student's completion percentage.

Change in Enrollment

A student's initial award is typically based on full-time, full-year enrollment. Students must inform the Office of Financial Assistance in writing if their intended enrollment is less than full time or less than a full year. Adjustments to aid must be made before funds will disburse to a student's Bursar account. Usually, a student must be enrolled for at least six hours to be eligible for any type of aid.

In the case of students who change their enrollment prior to the end of the drop/add period, their grant(s), scholarship(s), and/or loan eligibility will be recalculated. Students will receive a

revised award notification listing any changes in their aid package.

At the end of the last day to drop a course without a grade, the student's enrollment will be frozen and the financial aid for the semester will be based on the number of credit hours the student is enrolled at that time. Students should make sure they are enrolled for all the classes (including sprint courses) they intend to take for the semester by the end of the drop/add period.

Withdrawal from the University

If students receive federal assistance from any Federal Aid Program (the Federal Perkins Loan, Federal Direct Stafford Loan, Federal Pell Grant, Academic Competitiveness Grant, National SMART Grant, SEOG, or TEACH Grant programs) and withdraw from the university during the semester that they began attendance, Miami is required to determine the amount of federal aid that they have earned as of their withdrawal date.

The withdrawal date will be the date that official notification was provided to Miami, in writing or orally, of the student's intent to withdraw. If the student ceases attendance without providing official notification of withdrawal, the withdrawal date will be the mid-point of the semester or last known date of attendance.

The percent of federal aid that was earned by the student is equal to the percent of the semester that was completed, as of the withdrawal date, if this date occurs on or before completion of 60 percent of the semester. If the withdrawal date is after completion of 60 percent of the semester, the student will have earned 100 percent of the federal aid.

The percentage of the semester completed is determined by dividing the total number of calendar days in the semester into the number of calendar days that the student completed as of the withdrawal date. Scheduled breaks of at least five consecutive days are excluded from the total number of calendar days in the semester.

If the total amount of federal aid earned by the student is less than the amount of federal aid that was disbursed to the student, the difference between these amounts will be returned to the government.

Miami will return the total amount of unearned aid to the government for the student. These unearned funds will be credited to the outstanding balances on federal loans made to the student or on behalf of the student for the semester in which the return was required. The order for return of funds is as follows: Federal Direct Unsubsidized Loan, Federal Direct Subsidized Loan, Federal Perkins Loan, Federal Direct PLUS (received on behalf of the student), Federal Pell Grant, Academic Competitiveness Grant, National SMART Grant, SEOG, TEACH Grant.

Withdrawing will also affect the student's Satisfactory Academic Progress and may jeopardize federal financial aid eligibility. To make sure that the possible impact on financial aid is understood, the student should consult with a financial assistance counselor **prior** to withdrawing from the university.

Academic Suspension or Dismissal

Students suspended or dismissed for academic reasons, may not receive financial aid until they are re-enrolled. When students apply for re-enrollment, they should contact the Office of Student Financial Assistance for information about applying for aid.

Scholarships

Administered by the Office of Student Financial Assistance, scholarship programs are designed to recognize outstanding undergraduates demonstrating high scholastic aptitude and attainment. While all scholarships are based on academic merit, some scholarships also have financial need as a requirement.

Students cannot receive a combination of aid, including loans, grants, federal work-study, and scholarships, which exceeds their cost of attendance. If the total amount of financial aid exceeds the cost of attendance, the amount of aid will be reduced.

All students who apply for admission by **January 31** and are admitted to Miami as freshman are automatically considered for university scholarships. Those students filing the FAFSA by the **February 15** deadline will also be considered for need-based scholarships and university grants.

For additional scholarship information, see *www.muohio.edu/scholarships*.

Renewable scholarships are available for new domestic transfer students who have demonstrated academic merit and significant need. A student must have submitted a FAFSA and also have a 3.40 g.p.a. based on 12 or more credit hours from an accredited school. For information about Miami's transfer scholarships, please see *www.muohio.edu/scholarships*. Students enrolled less than full-time, attending the regional campuses, or that have a previous Bachelor's degree are not eligible.

Awards

Incoming freshmen are notified of their scholarship awards at or near the end of March; returning students will be notified prior to July 1. Awards are normally made for the academic year, starting with the fall semester.

Graduate Awards and Other Financial Assistance for Graduate Students

Graduate School
102 Roudebush Hall
phone: 513-529-3734
www.muohio.edu/graduate

Office of Student Financial Assistance
121 Campus Avenue Building
phone: 513-529-8734
www.muohio.edu/financialaid

Graduate Awards

Award Information

You must be admitted to the Graduate School with regular standing to be considered for a graduate award.

If you meet the minimum undergraduate grade point average required for admission with regular standing, you may be appointed to a graduate assistantship for one semester with reappointment contingent upon achievement of a 3.00 graduate grade point average for that semester and satisfactory performance of your graduate assistant duties.

You may not hold more than one graduate award for any given semester or academic year.

A graduate award holder cannot hold any other employment at Miami University during the term of the graduate award unless recommended by the department chair and approved by the graduate dean. International students (those with F-1 and J-1 visas) are allowed to work a maximum of 20 hours per week while classes are in session (this includes assistantship/associateship duties). An international student who holds a modified graduate assistantship with duties of eight hours per week may request permission to hold additional employment as long as that employment does not exceed 12 hours per week.

Award of a graduate appointment for one year involves no commitment for continued support by the university for subsequent years.

To Apply for a Graduate Award

To receive a graduate award you must be recommended by your department following your application and admission by the Graduate School. Contact the department to which you are applying for specific application requirements and deadlines. For a listing of graduate programs, visit the Graduate School website. More information on graduate awards is available in the *"A Handbook for Graduate Students and Faculty."*

Types of Awards

Most award recipients work in departments of their field of study. Graduate assistantships and doctoral associateships, however, are also available in other offices, such as the library, the Bernard B. Rinella Jr. Learning Center, university advancement, and intercollegiate athletics. Information is available from Academic Personnel Services, 513-529-6724, and the Graduate School, 513-529-3734.

Graduate assistantships are for holders of a baccalaureate degree seeking an advanced degree. These awards carry a stipend from at least $7,500 to a maximum of $20,342 for half-time duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/.*

Graduate assistants must carry between 10 to 14 hours of graduate courses each semester; however, Master of Arts in Teaching degree candidates in teacher education may carry nine graduate hours plus at least one undergraduate course each term. Duties normally occupy 18 to 20 hours per week. Students in music must pay additional special fees for applied music study.

Modified graduate assistantships are for holders of a baccalaureate degree seeking an advanced degree. These assistantships carry a stipend from at least $4,714 to a maximum of $5,823 for specified duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: http://www.units.muohio.edu/bur/. Holders must carry between 12 to 16 graduate hours each semester; however, Master of Arts in Teaching degree candidates in teacher education may carry nine graduate hours plus at least one undergraduate course each term. Duties consist of assisting faculty in instruction or research for an average of eight hours per week for each semester of appointment.

Residence hall assistantships, for students who plan careers in college student personnel work, carry a stipend of $7,500 plus room and board for part-time duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: http://www.units.muohio.edu/bur/. Holders must carry between 10 to 14 graduate hours each semester and perform duties as a counselor in a residence hall. Application should be made directly to the Office of Residence Life at the time of applying for admission to the Graduate School.

Teaching associateships are for holders of a master's degree or equivalent (i.e., 34 graduate semester hours in a doctoral program) seeking a doctorate or a Specialist in Education degree. These associateships carry a stipend from at least $16,083 to a maximum of $20,342 for half-time duties for two semesters. Graduate assistants with half-time duties for two semesters are granted

remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: http://www.units.muohio.edu/bur/. Teaching associates must carry between 10 to 14 hours of graduate courses each semester and perform duties, usually teaching, equivalent to 18 to 20 hours per week.

Doctoral associateships are for holders of a master's degree or equivalent (i.e., 34 graduate semester hours in a doctoral program) pursuing an approved program leading to a doctorate or a Specialist in Education degree. Doctoral associates are normally assigned responsibilities for nonteaching duties in administration. Stipends and academic responsibilities are the same as those for teaching associates.

Dissertation scholarships, for doctoral candidates at dissertation stage, are service free and carry a stipend ranging from $16,083 to $20,342. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: http://www.units.muohio.edu/bur/. Holders must carry the maximum graduate load during the period of appointment.

Graduate summer scholarships are stipends of two $900 payments made during the summer semester. These stipends are awarded for a maximum of $1,800 for the summer semester, and there are no duties attached to the payment of this scholarship. The awards are given to graduate assistants, research graduate assistants, modified graduate assistants, residence hall assistants, teaching associates, graduate associates, and dissertation/doctoral scholars who hold awards for one or two semesters and meet the guidelines for these scholarships. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/*. Individual departments will determine what coursework is needed for their students to qualify for the summer scholarship and tuition/fee waiver.

Graduate grants-in-aid are waivers of instructional fee and out-of-state tuition. There is no cash stipend. No duties are required. These grants are available for one or both semesters and/or summer terms to U.S. and international students who are in need of financial assistance, have strong academic records, and show considerable promise of future attainment. These grants are for students in continuous full-time study leading to a degree; they are not available to part-time students, nondegree students, and students whose full-time study is limited to summer sessions. Continuance or renewal of a grant is dependent upon satisfactory progress toward a degree. To apply for this grant, you must submit an official application form before March 1 for the following summer term or for the following academic year. You must apply for this award annually.

Academic Responsibilities

You must maintain satisfactory progress toward your degree in order to assure continuance as a grant-in-aid holder, graduate assistant, doctoral associate, or teaching associate. Satisfactory progress means meeting minimum registration requirements, maintaining a cumulative grade point average of at least 3.00, and fulfilling academic requirements for your degree as determined by your department or program. Failure to achieve such progress may result in the revocation of the award.

Award Acceptance

The university adheres to the resolution adopted by the Council of Graduate Schools in the United States. The resolution provides that if an award recipient accepts an award before April 15, the recipient will have complete freedom through April 15 to resign in order to accept another appointment. After April 15, however, the recipient may not accept another award without obtaining a formal release from the first commitment.

Graduate Students' Achievement Fund

The Graduate School sponsors this program to recognize significant achievements in research or creative activities by graduate students. Achievement is defined as completed research or other creative activity that has been recognized by an external organization or selected by an academic department for regional or national presentation. Contact the Graduate School for more information.

Other Financial Assistance

In addition to awards administered through the Graduate School, the Office of Student Financial Assistance offers Federal Direct Subsidized Loans, Federal Direct Unsubsidized Loans, Federal Direct PLUS Loans, and private loans. Campus employment is also available. To be considered for all available financial aid, you must file the Free Application for Federal Student Aid (FAFSA). Miami's priority filing deadline for the FAFSA is **March 15**. The FAFSA is available at *www.fafsa.ed.gov*. Miami University's Federal School Code is **003077**.

International students are not generally eligible for federal student aid.

For additional information contact the Office of Student Financial Assistance, 121 Campus Avenue Building, 513-529-8734 or visit the website at ***www.muohio.edu/financialaid***.

Cost of Attendance and Financial Aid Eligibility

Cost of Attendance (COA) is based on campus, housing arrangements, residency, and enrollment status including tuition and fees, room and board, books and supplies, personal expenses, and transportation. A student may not receive financial aid in excess of the COA. If a student receives a graduate assistantship, that amount is considered an additional resource and is used in the formula to determine financial need. In order to remain compliant with federal regulations, the amount of a graduate assistantship is subtracted from the COA to determine the student's remaining financial aid eligibility. This may result in a decrease of your loan eligibility. Example: If your COA is $30,000 and you have a graduate assistantship for $10,000, you have financial aid eligibility of $20,000 and can only borrow up to that amount. If you have applied for student loans, the assistantship award may affect the loan amount. If you have any questions regarding student loans, please call the Office of Student Financial Assistance 513-529-8734 (TTY accessible) and ask to speak to a Financial Assistance Counselor. You may visit the website at www.muohio.edu/financialaid.

William D. Ford Federal Direct Loan Programs

Eligible students filing the FAFSA will be considered for the William D. Ford Federal Direct Stafford Loan Programs. Upon verification of eligibility, completion of a Master Promissory Note, and Entrance Counseling (if a first time borrower at Miami), the loan funds will be disbursed to the student's Bursar account.

Eligibility for a Federal Direct Stafford Subsidized Loan is based on financial need as determined by federal regulations. With a Federal Direct Stafford Subsidized Loan, the interest is paid by the Federal government while a student attends school at least half-time (6 graduate credit hours per semester) and during grace or deferment periods. Graduate or professional students may borrow up to $8,500 in subsidized loans per academic year.

Need is not a factor in determining eligibility for a Federal Direct Stafford Unsubsidized Loan. With a Federal Direct Stafford Unsubsidized Loan, interest begins to accumulate on the day the loan is disbursed to a student's account and continues until the loan is paid in full. Repayment of the interest can de deferred while a student is in school and attending at least 6 graduate credit hours per semester. Graduate or professional students may borrow up to $12,000 in unsubsidized loans per academic year.

The maximum total debt aggregate limit for a graduate student is $138,500 (including undergraduate study and only $65,500 may be in subsidized loans). For the 2010-2011 academic year, the interest rate for both subsidized and unsubsidized loans is fixed at 6.8%.

To be eligible for the Federal Direct Graduate PLUS Loan, you must be enrolled at least half-time (6 graduate credit hours per semester) in a Master's degree or professional program and meet all general eligibility requirements for Federal Student Aid. In addition, you must not have an adverse credit history (a credit check will be done). Interest begins to accumulate on the day the loan is fully disbursed to a student's account and continues until the loan is paid in full. There are no set annual or aggregate limits on the PLUS loan amount. However, you may only borrow up to your cost of attendance (COA) minus any other financial aid you receive. For the 2010-2011 academic year, the interest rate for the PLUS loan is fixed at 7.9%.

Information on the deferment provisions and interest rates may be obtained by phone from the Federal Direct Loan Services at 1-800-848-0979 or at *www.dl.ed.gov*.

Private Loans

Private loans are not federally guaranteed and do not require filing the FAFSA. For more information on obtaining a private loan, visit *www.muohio.edu/loans*.

Campus Employment

The Department of Human Resources coordinates all student employment on campus. Graduate student wages may vary according to skills or responsibilities. You can look for a campus job at *www.muohio.edu/studentemployment***.**

If you hold an assistantship and want to work on campus any hours beyond your assistantship duties, you must first obtain permission from your department and the Graduate School.

Notification of Awards

Students filing their FAFSA by the filing deadline of **March 15** should receive their award notification on or before June 1.

You must notify the Office of Student Financial Assistance of any additional awards you are receiving (e.g., graduate assistantship, outside scholarships, dissertation scholarships, fee waiver, tuition assistance, etc.). These additional awards may impact your Federal Direct Loan eligibility.

If circumstances have changed and your FAFSA does not accurately represent your financial situation (i.e., divorce, loss of wages, or other extreme circumstances), you may request a special circumstance review by contacting the Office of Student Financial Assistance.

Veterans

Veterans who intend to enroll at Miami should contact the Veterans Affairs (VA) Administration at 1-888-442-4551 to obtain their GI Bill eligibility. To apply for benefits, complete the online application at *www.vabenefits.vba.va.gov/vonapp*. You also need to submit your enrollment to the VA Coordinator at Miami, which can be completed at *www.muohio.edu/financialaid*.

To be assured of advance payment, initial paperwork should be submitted to the Veterans Affairs Administration 45 days before classes begin. Veterans receiving education benefits from the VA must *immediately* report any changes of program and/or registered classes (adds, drops, or withdrawal) to the VA Coordinator in the Office of Student Financial Assistance. For more information or to contact the VA Coordinator at Miami visit *www.muohio.edu/financial aid*, email *veterans@ muohio.edu*, or call 1-513-529-8734.

Additional financial assistance is available to most veterans through programs described in this section.

International Students

International students who do not meet citizenship requirements for federal aid programs should contact the Graduate School or the appropriate academic department for information on the types and amounts of specific aid available for international students.

http://www.muohio.edu/graduate-studies/

Special Opportunities and Programs

International Education

Miami University's policy on international programs and educational interchange:

It is essential in today's interdependent world to provide a clear international perspective in the university's curriculum. Citizens of all nations have a growing need to understand their citizenship in terms of global concerns as well as in terms of issues of local or national significance. People who have this awareness are likely not only to recognize and respect the legitimate rights and needs of other nations but also to realize how their own fate is ultimately bound to the fate of all peoples.

In this context, Miami University meets its responsibility to its students and to the state of Ohio by providing educational opportunities that recognize the plurality of cultures, the existence of common concerns, and the need for more effective methods of international and intercultural cooperation. The university is therefore committed to provide to the student body significant educational opportunities with international perspective. To this end, the university encourages the enrollment of foreign students who lend diversity to the campus community and serve as educational and cultural resources. It further encourages specialization in subject areas that have an international/intercultural dimension, such as the undergraduate program of International Studies, and informs students and faculty of overseas study and research opportunities that will enhance their international experience.

The university encourages international programs on campus and research and study abroad in a manner consistent with its policies on academic freedom and nondiscrimination. Believing generally that the interests of education are best served by access to all areas of the world, the university also believes that international education should promote the development of a humane and cooperative world order including respect for internationally recognized standards of human rights. The university seeks to ensure that its exchange programs remain consistent with these goals through regular review of all such programs. Creation of a program by Miami University constitutes no expressed or implied endorsement of the policies of the government of the other country.

John E. Dolibois European Center at the Château de Differdange, Luxembourg

Miami's fourth campus, the Dolibois European Center, founded in 1968, provides students with an opportunity to live and study in Europe while earning Miami credit. The Center is located at the historic castle of Differdange, Luxembourg's third largest city. Situated in the heart of Western Europe, the Grand Duchy of Luxembourg retains the charm of its thousand-year heritage while standing in the vanguard of the European Union, as one of its three capitals. Both French and German are spoken.

Students pursue an in-depth study of Europe in 30 or more courses and field studies designed to take advantage of the European location. All courses apply Miami standards and offer Miami credit; instruction is in English except in language courses. Faculty is composed of both European professors and Miami professors on assignment from the Oxford and regional campuses. The experience of living with a Luxembourg family and the opportunity to explore Europe during vacation periods and weekends are integral parts of the Dolibois European Center concept.

If you intend to apply, you should plan your academic program carefully. One of the advantages of studying at the Center is that you can complete a Miami Plan Thematic Sequence in one semester or during the seven week summer program.

All Miami students with at least a 2.50 cumulative grade point average and a good conduct record are eligible to apply for study at the Center during their sophomore, junior, or senior year. Students from other colleges and universities may also apply, provided they are admitted to Miami as transfer or transient students. The first-round application deadline is **January 24** for fall and spring semesters of the following academic year. For the summer program, the application deadline is **December 7**.

For the year and semester programs, tuition and fees are the same as at the Oxford campus and you may apply your university scholarships or financial aid. In addition, to offset the cost of travel, you may be eligible for a Dolibois European Center scholarship, interest-free loan, and air travel grant. Costs for the summer program are based on Oxford campus tuition and fee rates. Honors Program students can use their tuition waiver. A limited number of general scholarships are available for summer.

For more information and applications, contact the Dolibois European Center Oxford MUDEC Coordinator, 220 MacMillan Hall (513-529-5050).

International Agreements

Agreements for the Exchange of Students

Miami has exchange agreements that provide opportunities for you to enroll directly in academic institutions overseas for a period of one semester or for a full academic year. You must be currently **enrolled as a full-time student at Miami University to be eligible** for application to a university student exchange program. In all cases, students maintain their enrollment by paying the full cost of tuition and fees to Miami, therefore creating a place for an international student to come here. If you receive financial aid, this arrangement allows you to maintain your eligibility. Depending on the terms of the agreement, students may also pay room and board charges to Miami that will, in turn, provide these same benefits when studying overseas. Academic credit for successful study at the overseas institution is guaranteed upon your return. Advance approval for the transfer of credit must be obtained in consultation with your academic adviser and with the Office of International Education, 216 MacMillan Hall (513-529-5628).

Student Exchange Agreements

Aarhus University, Denmark Semester/academic year. Courses offered in English.

Conservatoire de Musique de la Ville de Luxembourg Semester only. Application is made to the Department of Music.

International Student Exchange Program (ISEP) Semester/academic year. Opportunities to choose from more than 100 institutions in approximately 30 countries. Courses of instruction are normally offered in the language of the host country, but some institutions may offer a variety of courses taught in English.

Kansai University of Foreign Studies, Japan Academic year only. Courses offered in English.

University of Tsukuba, Japan
Semester/academic year
Courses offered in English

University of Glasgow, United Kingdom Academic year only.

University of the Americas-Puebla, Mexico
Semester/academic year. Spanish language skills required.

Vienna University of Economics and Business Administration, Austria
Semester/academic year. German language skills preferred; business courses available in English.

Agreements of Cooperation

Other agreements with overseas institutions provide a general framework for cooperation in all areas related to teaching, study, exchange of scholarship, and joint research. Many of these accords are based on relationships established by individual departments or other academic units of the university. Inquiries should be made to the Office of International Education to determine if opportunities exist for study abroad. Since agreements with the institutions listed below do not make specific provision for the exchange of students on a one-for-one basis, you may be able to study or conduct research at one of these institutions only by special arrangement. Miami has agreements of cooperation with the following institutions:

- Brazil: University of Brasilia, University of Fluminense, University of Minas Gerais
- China: Fudan University, Jinan University, Zhongshan University
- Czech Republic: Palacky University
- France: Nantes Atlantique Higher School of Commerce
- Mexico: University of Tamaulipas

Summer Study Abroad

Miami is a national leader in the number and variety of summer study abroad learning opportunities.

All programs are led by experienced Miami University faculty. Language and culture programs include French in Dijon, France; German in Heidelberg and Berlin, Germany; journalism in Kosovo; and Chinese in Beijing. Programs vary from two to ten weeks and may be equivalent to a semester of study.

Other recent workshops and locations include the Summer MUDEC Program in Luxembourg; marketing practice in London; international business in Russia, Korea, Luxembourg, London, and the Pacific Rim; ecology and geology in the Bahamas, Belize, Bermuda, Costa Rica, and Kenya; and arts, culture, heritage, and archeology in the Bahamas, the Czech Republic, and Ghana.

Information on summer offerings is available at the Office of Lifelong Learning website at *www.muohio.edu/lll* or at the Office of Lifelong Learning, 127 McGuffey.

Other Overseas Programs: Transfer Credit

Many American universities sponsor study abroad programs all over the world. Information is available in the Study Abroad Library at the Office of International Education, 216 MacMillan Hall. All students should make certain that the program is approved and that credits will transfer before studying abroad.

Transfer of your credit may be automatic if the overseas program is sponsored by an accredited university, but you should seek confirmation from the study abroad adviser before you apply. If you choose to enroll directly in an overseas institution, you should consult with your academic adviser and the study abroad adviser in the Office of International Programs about transfer credit. **(See Credit Evaluations)**

If you are admitted to an overseas program not sponsored by Miami University, obtain a Study Abroad form at the Office of International Education, 216 MacMillan Hall (513-529-5628). This office will determine if the credits earned can be transferred back to Miami. After the form is completed, it will be submitted to the Registrar's office so that registration can be arranged for the next applicable semester. No readmission procedure is necessary if your Study Abroad form is on file at the Office of the Registrar.

Honors

University Honors Program

A select number of students are admitted each year into the University Honors Program through a special essay-based application. Most students apply and are admitted to the program at the same time they are admitted to Miami University. However, current and transfer students may apply to the program.

A rigorous learning program that attracts and challenges highly motivated students, the University Honors Program features the opportunity to design one's own individualized liberal education plan by engaging in special honors seminars, independent research, study abroad and other intense learning while also fulfilling one's degree program requirements.

Students are required to demonstrate mastery of a sequenced set of learning outcomes through an electronic portfolio. They must also complete a select number of Honors Experiences based on when they are admitted to the program, which consist of small seminar classes and special learning opportunities, and have a cumulative g.p.a. of 3.50 or better in order to earn the "University Honors" transcript notation upon graduation.

All honors students are offered personalized advising and regular feedback on their progress in the program. Students have the option of living in the first-year or upper-class honors themed residence halls and applying for funding for research and other projects.

Application deadlines for high school seniors and transfer students coincide with the application deadlines for the Miami University Application for Admissions. Current Miami students who did not join the honors program as incoming students have an opportunity to apply after successfully completing one semester at Miami. Applications are considered on a space-available basis only.

For more information on the University Honors Program, please contact the Honors Program Office, 96 Bishop Hall, 513-529-3399, or visit the program's website at *www.honors.muohio.edu*.

Departmental Honors

If you are interested in additional study in your major area, you may enroll in a departmental honors program in most departments. Consult your chief departmental adviser about departmental honors; these programs vary from department to department. You graduate with departmental honors when you complete the program.

President's List, Dean's List

The President's List recognizes undergraduate students who receive a 4.00 g.p.a. for a semester of 12 or more credit hours attempted for grades (A+ through F).

The Dean's List recognizes undergraduate students who receive a 3.50 to 3.99 g.p.a. for a semester of 12 or more hours attempted for grades (A+ through F).

Miami's News and Public Information Office notifies your hometown newspaper when you are on the President's or Dean's List.

Graduation with Latin Honors

A student pursuing a bachelor's degree or an associate's degree can graduate with distinction. The current criteria are based upon university-wide grade point averages: 3.50 for *cum laude*, 3.75 for *magna cum laude* or 3.90 *summa cum laude*. Effective with spring commencement 2011, the criteria are division-based, awarding the distinction of *summa cum laude* to the highest 2 percent, *magna cum laude* to the next 5 percent, and *cum laude* to

the next 10 percent, with no more than 17 percent being awarded honors. The College of Arts and Science will calculate separately within the three cognate areas of Humanities, Social Sciences, and Natural Sciences.

Academic Opportunities

Undergraduate Associates

Sophomores, juniors, or seniors who are interested in college teaching or another professional field can become undergraduate associates. Each associate is sponsored by a faculty member. The student and the sponsoring faculty member decide what the associateship should involve. The Undergraduate Associates Program has special eligibility requirements and an application process. Students do not need to be members of the University Honors Program to apply.

Students successfully completing the university-wide program will receive a notation on their transcript. Additional information about the program is available online (*http://casnov1.cas.muohio.edu/honors/hon/current/us.html*) or by contacting the Honors Program Office, 96 Bishop Hall or by calling 513-529-3399.

Undergraduate Research Program

First Year Research Experience (FYRE) is a program intended to provide first year students with opportunities to engage in research and to establish early contact with faculty mentors. This option requires students to additionally register for a 1 credit course to engage in common seminar/workshop experiences, and participate in the Annual Undergraduate Research Forum.

You can also apply for a grant to do independent research or other creative endeavor from the Undergraduate Research Committee. Research can be in any discipline. Funding for the grants comes from alumni and friends of Miami.

Approximately $40,000 is available yearly for individual grants. Typically, 90 to 100 grants are awarded ranging from $200 to $800 each.

These programs are publicized in early fall. For more information, contact the Office for the Advancement of Research and Scholarship (OARS) at 513-529-3600.

Undergraduate Summer Scholars Program

This ten-week summer program enables Miami undergraduates to do research or other creative activities in the summer with the supervision of individual faculty mentors. About 100 awards are available each summer.

You can apply for an award along with a faculty member as a student-mentor pair. For the student, each award includes a student fellowship, 12 hours of academic credit with waiver of instructional fees and tuition, and an allowance for supplies, services, and travel; the faculty mentor receives a modest allowance.

The program is publicized, and applications are due in late fall. For more information, contact the Office for the Advancement of Research and Scholarship (OARS) at 513-529-3600 or visit *www.muohio.edu/oars*.

Science and Engineering Research Semester

Central States Universities, Inc., in conjunction with Argonne National Laboratory near Chicago, Illinois, sponsors this program. Qualified majors participate in basic research in physical and life sciences, mathematics, computer science, and engineering, as well as in applied research programs relating to coal, conservation, environmental impact and technology, fission, fusion, and solar energy.

Students receive a stipend from Argonne National Laboratory, housing, and reimbursement for travel from Miami University to Argonne.

To apply for this program, you must have completed your sophomore year, be a citizen of the United States or a permanent resident alien, be 18 years of age or older, and have an overall g.p.a. of 3.00 or better.

For more information, contact the Department of Physics, 133 Culler Hall (513-529-5625) or the Department of Geology, 114 Shideler Hall (513-529-3216).

Reserve Officers Training Corps (ROTC)

Students can earn commissions as officers in the U.S. Air Force, Navy, or Marine Corps through the Air Force Reserve Officers Training Corps (AFROTC) or the Naval Reserve Officers Training Corps (NROTC).

Air Force Reserve Officers Training Corps (AFROTC)

For information, contact the Air Force Reserve Officers Training Corps office at 50 Millett Hall (513-529-2031).

AFROTC was established at Miami in 1949 as the Department of Air Science and Tactics. In 1952, a joint university-Air Force agreement resulted in the unit's designation as a Senior Reserve Officer Training Corps and the Department of Aerospace Studies.

Membership Eligibility

All AFROTC classes may be taken by Miami students for university credit, however only students meeting AFROTC entry requirements may be considered as cadets working toward an Air Force office commission.

To be eligible you must:

- be at least 14 years of age. You must be 17 years of age for enlistment and 18 years of age for commissioning.
- be under the maximum age for commissioning. To compete for the pilot or navigator categories, a cadet must be able to complete their bachelor's degree and be commissioned through Air Force ROTC before they are 29 years old. Scholarship applicants must be less than 31 years old as of December 31 of the year they will commission. Tech, non-tech, and non-rated must be commissioned by age 30 (waiverable up to age 35 in some cases).
- be a United States citizen
- be of good moral character
- meet Department of Defense and Air Force Dependency Policy requirements
- meet medical entrance requirements
- meet academic requirements and be in good academic standing (GPA of 2.00 or higher) to compete for an enrollment allocation
- pass the Air Force Officer Qualifying Test (AFOQT)
- meet weight and physical fitness standards

Veterans with previous honorable active U.S. military service who wish to enroll in the Professional Officer Course may be qualified for a waiver for the General Military Course (GMC) requirement. Veterans who meet all other requirements may be enrolled at the beginning of their junior year.

Scholarship Program

This AFROTC scholarship program offers highly qualified high school seniors and college freshmen and sophomores opportunities to compete for scholarships on a national level. Awards range from four-year to two-year scholarships which can cover up to full tuition and provide money for books, fees, and a monthly tax-free stipend.

Other Scholarships

Several other university (i.e., non-government) scholarships are also available to Miami Air Force ROTC cadets. These privately funded scholarships vary by amount and eligibility criteria and are awarded by the professor of aerospace studies.

Curriculum

The curriculum in aerospace studies is divided into two parts: the General Military Course (GMC), taken during your freshman and sophomore years, and the Professional Officer Course (POC), taken during your junior and senior years.

General Military Course (GMC)

The GMC includes one class (one credit hour) and two leadership laboratory hours (one credit hour) per week plus physical fitness training. Class and leadership laboratory comprise a total of two credit hours each semester.

Professional Officer Course (POC)

The POC includes three classroom hours and two leadership laboratory hours per week plus physical fitness training. Class and leadership laboratory comprise a total of four credit hours each semester for a total of sixteen semester hours upon completion of the POC program.

Leadership Laboratory

The leadership laboratory includes activities designed to apply the leadership knowledge and skills learned in the classroom. Activities include demonstration of command, team projects, problem solving, military customs and courtesies, effective communication, fitness development, and field training preparation among other things. POC cadets have the added responsibility of planning and running leadership laboratory in order to gain practical application of the leadership principles learned in the classroom.

Field Training

Applicants for the Professional Officer Course must attend a summer field training course between their sophomore and junior years. Those who complete the GMC are assigned to a four-week training session; however, students who do not complete the entire GMC must attend an expanded six-week field training session. Field training is an opportunity to further develop leadership and team-building skills. Those who successfully complete field training are eligible to enter the POC. Academic credit may be obtained for completing field training. The Air Force provides uniforms, housing, medical care, meals, travel allowance, and pay while attending field training.

Uniforms and Textbooks

AFROTC provides books to all students enrolled in AFROTC classes and also provides uniforms for cadets in the program. Books and uniforms must be returned upon completion of or withdrawal from the courses.

Naval Reserve Officers Training Corps (NROTC)

For information, contact the Naval Reserve Officer Training Corps office at 67 Millett Hall (513-529-3700).

Naval ROTC was founded at Miami in 1946. With satisfactory completion of naval science and bachelor's degree requirements, graduates are commissioned either an Ensign in the United States Navy, or Second Lieutenant in the United States Marine Corps.

All NROTC programs are open to men and women. You may qualify for the scholarship program, college program, or two-year program.

Scholarship Program

Students admitted to Miami as midshipmen in the scholarship program receive a monthly subsistence allowance and an allowance each semester for the purchase of textbooks. The Navy pays all registration and general fees, all tuition (in state or out of state), all instructional fees, provides all naval science textbooks, and furnishes all uniforms.

Between academic years, midshipmen participate in summer training periods held throughout the world. During these training periods, you are furnished all meals, housing, medical care, travel expenses, and military pay. Upon commissioning, you serve a minimum of four years on active duty.

You can major in any field of study leading to a bachelor's degree; you can choose Navy option, Navy nurse option, or Marine Corps option.

Navy scholarship option. You take 31 semester hours of naval science, one year of calculus, one year of calculus-based physics, one semester of American military affairs or national security policy, and one semester of world culture.

Navy nurse scholarship option. This program is for students seeking a commission in the Navy Nurse Corps. In addition to the school of nursing requirements, you take 18 semester hours of naval science.

Marine scholarship option. You take 24 semester hours of Naval Science; one semester of American military affairs or national security policy. You must also complete six weeks of training at the Marine Corps Officer Candidate School in Quantico, Virginia, during the summer between your junior and senior years.

College Program

Selection to this program is made by the professor of naval science, based on evaluation of the applicant's potential to serve as a commissioned officer, ACT or SAT scores, and high school record. You receive books and materials for all naval science courses, uniforms, $350 per month during your junior year, and $400 per month during your senior year.

Freshmen apply during the Summer Orientation Program. Applications are accepted, however, any time during a student's first two years at Miami. Submit applications to the NROTC Unit, Millett Hall.

Midshipmen participate in one summer training period, held throughout the world, normally the summer between your junior and senior years. During training, meals, housing, and medical care are furnished, and you receive military pay and reimbursement for cruise travel expenses. After you are commissioned, you serve a minimum of three years on active duty.

You can compete for Navy and Marine Corps scholarships throughout your first two years in the NROTC program. You follow the same requirements as the scholarship students while competing for those scholarships.

Two-Year Program

Sophomores can apply for the two-year program at the NROTC Unit, Millett Hall. Selection is based upon your cumulative grade point average and potential as a commissioned officer. If you are selected, you must attend the Naval Science

Institute at Newport, Rhode Island, between your sophomore and junior years. You then enter NROTC as a junior in the scholarship or college program. You have the same benefits and take the same naval science courses as other NROTC students.

Other Information

NROTC midshipmen may change from the Navy to the Marine Corps option, or vice versa, anytime during their first three years at Miami provided they are qualified and both services agree.

Scholarship program midshipmen do not incur any obligation until the beginning of their sophomore year. College program midshipmen do not incur any obligation until the beginning of their junior year.

Initial duty assignments depend upon needs of the service and the individual's preference, qualifications, and performance. Navy option midshipmen may choose assignments in naval aviation, nuclear submarines, or surface warfare. Marine option midshipmen also choose from a variety of assignments, including aviation, combat arms, and combat support.

Scholastic Enhancement Program (SEP)

This program provides support to specially admitted students who show academic promise, but whose academic profiles suggest the need for academic and personal guidance to ensure completion of a degree program. Students admitted through SEP are required to follow an individually developed educational plan provided by program coordinators that includes: additional assessment of academic skills, early advising with supervised course selection, personal counseling, and other scholastic activities to assist in their adjustment to Miami. SEP also provides a program called FYRE/URO (Undergraduate Research Option). This program matches students with a faculty sponsor who engages the student in a research project.

For more information, contact the Bernard B. Rinella Jr. Learning Center, 14 Campus Avenue Building (513-529-5528) or visit *www.muohio.edu/learning*.

Community Engagement and Service

The Office of Community Engagement and Service (CE&S) serves as a catalyst for mutually beneficial campus and community partnerships. Community engagement is a reciprocal, continuous learning process that builds sustainable partnerships among campuses and communities to facilitate change. Community engagement includes service learning, volunteerism, social advocacy and engaged scholarship. Service learning combines scholarship and experience through reflection, to deepen course content and enhance civic responsibility. MU offers courses that use service learning as an effective teaching approach.

For more information on all programs and services, contact the office at 513-529-2961 or email *slclgroup@muohio.edu*.

Programs and Services

America Reads

The America Reads program is funded through federal work-study. Through extensive training and weekly lesson plans, tutors develop effective and efficient ways of working to help children become better readers. The tutors are trained to provide individual assistance in the areas of reading, writing, spelling, and vocabulary to students in Butler County.

Students interested in the America Reads program complete an application and an interview with one of the program coordinators. Additionally, students must be eligible for federal work-study. Once hired, America Reads tutors are required to attend one mandatory four-hour training session prior to tutoring and participate in additional monthly trainings throughout the semester. For more information contact the office at 513-529-2999 or e-mail *americareads@muohio.edu*.

Adopt A School

The Adopt A School Program involves more than 500 Miami students and is an excellent way for students to become better connected to the local communities and become role models for area students. Highly coordinated, Adopt A School allows Miami students to volunteer in a way that easily fits their schedule and the needs of area teachers. Working with grades K-12, volunteers help in the classroom, on the playground, in the lunchroom, or with after school programs.

Students interested in the Adopt A School program must complete an application and attend a one-hour training session prior to volunteering. For more information about the Adopt A School Program, contact the office at 513-529-8720 or e-mail *adoptaschool@muohio.edu*.

Empower

This service learning program encourages students to extend their learning experiences beyond the classroom in order to learn about how social issues impact the local communities surrounding the university. Through a combination of interactive seminars and community service, Empower challenges students to think critically, reflect, and take purposeful action towards social change.

Empower runs for nine weeks, during which students meet weekly for the seminar portion. Community service opportunities are available continuously. For students living in select residence halls, Empower sessions are also available that focus on the themes of the living learning communities. For more information, contact the Office of Community Engagement & Service at 513-529-2961.

Empower II

For students who have completed the Empower program and want to gain an even deeper level of understanding in a particular social issue or community agency, Empower II provides the opportunity for student-driven community engagement. Students and communities benefit mutually through this partnership.

Empower II students meet regularly for discussions and learning experiences that are determined by student interest. Throughout the program, students immerse themselves in an agency and learn from the experiences of other Empower II participants, concluding with each student producing a portfolio of the agency and community in which he or she worked. For more information, contact the Office of Community Engagement & Service at 513-529-2961.

Service Guides

Students who have completed both Empower I & II, or have a deeply engaged relationship with the community, are eligible to become service guides for the Office of Community Engagement & Service. As paid student employees, service guides receive continuous training in order to lead volunteers into the community and engage them in thoughtful service and reflection. In addition to acting as a relatable leader for student volunteers, service guides also help strengthen relationships between Miami University and community partners.

Service guides attend regular meetings to receive ongoing training on reflection activities and service leadership.

Pledge-A-Meal

Pledge-A-Meal is a university-wide fundraiser that asks students to donate one dinner of their university meal plans with

the proceeds going to area food banks. In operation each November since 1999, the project's purpose is twofold. The immediate benefit goes to the agencies receiving the monetary donations, while the larger purpose of the event occurs through bringing attention to issues of local hunger in order to foster social awareness and inspire students to take action towards positive social change.

Besides pledging a meal, student volunteers are also needed to collect pledges at dining halls across campus.

Volunteer Fair

Once each semester, local agencies are formally invited to Miami's Oxford campus, giving both students and agencies a chance to communicate about their mutual needs. Students can speak to a wide variety of agencies that address many different service areas, while agencies can better learn about what types of engagement are of interest to students. This is a rewarding experience for all and an opportunity to welcome community partners to campus.

MU Volunteers! Community Plunge

This plunge introduces new Miami students to the local communities through meaningful service and reflection. Students who participate will serve at a variety of agencies, ranging from choice food pantries to children's summer programs. During the three-day service experience, students will meet peers who are also dedicated to service, while enhancing their understanding of volunteerism and community engagement.

The Community Plunge is a part of the Office of New Student Programs' Miami Connections and is open to any incoming first-year students interested in learning more about social justice and engaging in their new community. For more information and to apply, contact the Office of Community Engagement & Service or the Office of New Student Programs.

MU Volunteers ListServe

For student interested in community service or looking for a way to get involved, the MU Volunteers ListServe provides a weekly update on service opportunities ranging from one-time needs to ongoing service experiences. To learn more, visit the website at *www.muohio.edu/servicelearning*.

Peer Education Opportunities

Through peer education programs, students develop knowledge and skills to educate their peers about important student issues.

The Office of Health Education (513-529-8544) coordinates the HAWKS Peer Health Educators (Health Advocates for Wellness Knowledge and Skills) and addresses issues around student health such as alcohol and other drug use; sexual health and decision making; nutrition and wellness; body image and eating disorders; and relationships.

The Career Exploration and Testing Center (513-529-4645) coordinates the Career Assistant Program.

Scholar Leader Program

The Scholar Leader Program is a living-learning program involving a one-year residence in Elliott or Stoddard Hall, two of the most historic residence halls in the nation. Endowments for each room provide scholarships to those students selected to live in the community. The Scholar Leader community encourages resident-guided programming, academic involvement, service-learning projects, and the opportunity to explore leadership through intensive group engagement. Upper-class students must have a 3.00 cumulative grade point average and be in good standing with the university. For more information, please visit *www.muohio.edu/wilks*.

The College of Arts and Science

Advising Office
146 Upham Hall
Phone: 513-529-3031
www.cas.muohio.edu

Degrees and Majors Offered

Bachelor of Arts in:

American Studies
Anthropology
Biochemistry
Black World Studies
Botany
Chemistry
Classical Humanities
Classical Languages
Diplomacy and Global Politics
Earth Science
Economics
East Asian Languages & Cultures
English
Environmental Earth Science
French
Geography
Geology
German
Gerontology
History
Individualized Studies
Italian Studies
Journalism
Latin American, Latino/a and Caribbean Studies
Linguistics
Mass Communication
Mathematics
Microbiology
Philosophy
Physics
Political Science
Psychology
Public Administration
Religion
Russian, East European & Eurasian Studies
Sociology
Spanish
Speech Communication
Strategic Communication
Urban and Regional Planning
Women's Studies
Zoology

Bachelor of Arts in International Studies

Bachelor of Science in:

Biochemistry
Botany
Chemistry
Clinical Laboratory Science
Engineering Physics
Geology
Mathematics
Mathematics and Statistics
Physics
Quantitative Economics
Speech Pathology and Audiology
Statistics
Zoology

Associate in Applied Science in:

Chemical Technology
Criminal Justice
(Refer to Hamilton and Middletown section.)

General Information

The College of Arts and Science has as its primary purpose provision for a liberal education, which has been defined traditionally as one that assures intellectual enlargement through general study of arts and science. A liberal education should expand students' awareness of diverse approaches to understanding and transmitting knowledge and free them from the narrow perspectives of specialization uninformed by a general knowledge of the various systems of scientific and humane thought that have shaped civilizations. This generalized inquiry provides the basis for a sense of community within the College of Arts and Science and the understanding necessary to an enlightened re-evaluation of culture.

The College offers the degrees Bachelor of Arts, Bachelor of Arts in International Studies, and Bachelor of Science. An associate's degree is also offered at Middletown campus; this program is described in the Hamilton and Middletown section.

Accreditation

Departments accredited by professional associations are: the Department of Chemistry and Biochemistry by the American Chemical Society, the Department of Psychology by the American Psychological Association, and the Department of Speech Pathology and Audiology by the American Speech and Hearing Association.

General Requirements

These are the general requirements of the College of Arts and Science for graduation:

- Fulfill the Miami Plan for Liberal Education (MP), the College Requirement (CAS), and the requirements of your major.
- Earn a cumulative grade point average of 2.0 and a 2.0 average in all courses taken in your department(s) of major.
- Earn at least 128 semester hours, 56 must be advanced (at 200 level and above).

If you are a transfer student, you must take a substantial portion of your major requirements at Miami. You must consult with the Chief Departmental Adviser of your major department at the time of transfer.

The College Requirement (CAS)

The divisional requirement in Arts and Science is called the College Requirement (CAS). If you are working toward the Bachelor of Arts (A.B.), you must fulfill all sections of the CAS; if you are working toward the Bachelor of Science (B.S.), you must fulfill only CAS-A (foreign language), but the B.S. requires more hours of concentration in your major. In many cases, you can fulfill sections of the Miami Plan and the College Requirement with the same course. This is shown in a chart on page 81.

The College Requirement includes:

CAS-A Foreign Language

CAS-B Humanities

CAS-C Social Science

CAS-D Natural Science

CAS-E Formal Reasoning

- When you plan your program, keep these important points in mind:
- Although some CAS and Miami Plan courses overlap, you cannot use all courses that fulfill sections of the Miami Plan to fulfill sections of the College Requirement. See the chart later in this section.
- Some courses you take for the Miami Plan or the College Requirement can also help fulfill your major requirements. In addition, any course cross-listed in two or more departments can be used to satisfy a requirement appropriate to any of the departments in which it is listed.

CAS-A Foreign Language

Direct acquisition of a different communication system facilitates access to a foreign culture. It also promotes understanding of how language structures human consciousness, increases the understanding of your own language, and makes possible a more informed awareness of the interaction between language and other social institutions.

All foreign languages taught at Miami are applicable for this requirement. They include Arabic, Chinese, French, German, Greek, Hebrew, Hindi, Italian, Japanese, Korean, Latin, Portuguese, Russian, and Spanish. If you take a course with a 202-level course prerequisite, that course automatically satisfies CAS-A.

Greek 202 or Latin 202 may fulfill either CAS-A or CAS-B-LIT, but not both.

Requirement: The foreign language requirement may be met in any one of the following ways:

- By passing the 202 course (or its equivalent in a program abroad), or a language course at the 300 level or above. Other 200-level courses or courses in English translation do not apply to this requirement.
- By passing the foreign language portion of the Advanced Placement examination with an appropriate score. This test, sponsored by the College Entrance Examination Board, is usually administered during the junior or senior year in high school. Information on Advanced Placement and acceptable scores is in the Academic Planning chapter of this Bulletin.
- For Bachelor of Science students only, this section of the College Requirement may also be met by passing a reading examination in a foreign language over suitable material from within your discipline. Information on this examination is available from any foreign language department.
- International students whose native language is not English may use English to satisfy the foreign language requirement. (See the Associate Director of Admission.)
- Students who are fluent in a language not offered at Miami University must petition the College of Arts and Science Committee of Advisers to satisfy this requirement through another college or university.
- In some language departments admission to language skills courses may be denied to native or quasi-native speakers and heritage speakers.

The foreign language placement guide in the Academic Planning section describes the background necessary to enter a course at a certain level; this will help you choose your first course. Placement tests do not award academic credit.

CAS-B Humanities (9 semester hours)

Liberally educated students become familiar with and understand human values expressed through society. They know events and ideas that help form ideals, classical and contemporary literature that expresses beliefs, and religious and philosophical principles that stand behind actions. They are cognizant of processes whereby these values and works came into being, of methods by which they may be examined, and of needs and desires they express and fulfill.

Requirement: You must complete at least six of the required nine semester hours from courses within the College of Arts and Science in two of the following four categories: history, literature, philosophy, and religion. These hours may also be used to fulfill Group II (Fine Arts, Humanities) of the Miami Plan if they are designated MPF II A or B or Group III (U.S. or World Cultures) if designated MPF III. The additional three hours may be from other courses not in the categories listed above as long as they have been approved by the College of Arts and Science and are designated as CAS-B in the course descriptions.

"History" includes all courses offered by the Department of History.

"Literature" includes all literature courses offered by the departments of Classics; English; French and Italian; German, Russian, and East Asian Languages; Spanish and Portuguese; and Theatre. These literature courses are designated CAS-B-LIT in the Courses of Instruction section. Greek 202 or Latin 202 may fulfill either CAS-A or CAS-B-LIT, but not both.

"Philosophy" includes all courses offered by the Department of Philosophy, except PHL 273 or 373, which can only be used to fulfill CAS-E.

"Religion" includes all courses offered by the Department of Comparative Religion.

CAS-C Social Science (9 semester hours)

Through study of social science (the systematic study of human behavior, human institutions, and theoretical models through which human beings attempt to organize their lives), liberally educated students become familiar with regularities and variations in human behavior, with explanations of these regularities and variations, with methods useful in systematically and objectively validating propositions concerning these phenomena, and with potential for analyzing human behavior objectively.

Requirement: You must complete at least six of the nine required semester hours from courses within the College of Arts and Science in two of the following six categories: anthropology; economics; geography except GEO 121, 424, 431, 432; political science; psychology; and sociology and gerontology. These hours may also be used to fulfill Group II (Social Science) of the Miami Plan if they are designated MPF IIC or Group III (U.S. or World Cultures) if designated MPF III. The additional three hours may be from other courses not in the categories above as long as they have been approved by the College of Arts and Science and are designated as CAS-C in the course descriptions.

"Anthropology" includes all courses offered under the anthropology area.

"Economics" includes all courses offered by the Department of Economics.

"Geography" includes all courses offered by the Department of Geography except GEO 121, 424, 431, and 432.

"Political Science" includes all courses offered by the Department of Political Science.

"Psychology" includes all courses offered by the Department of Psychology.

"Sociology and Gerontology" includes all courses offered in the sociology and gerontology areas.

CAS-D Natural Science (10 semester hours)

The liberally educated student learns to understand natural phenomena through observations and experimentation. Physical sciences are involved largely with behavior of energy, particles, atoms, and molecules. Biological sciences are concerned with nature, variation, richness, and interactions of phenomena of life.

The natural science requirement introduces you to various aspects of scientific inquiry as practiced in botany, chemistry, geology, microbiology, physical geography, physics, and zoology. Laboratory experience is included to demonstrate the relationship between theories or models used within a given science and experimental results.

Requirement: You must complete at least 10 semester hours from courses within the College of Arts and Science natural science areas, including at least three semester hours in physical science and three in biological science. One course must be either a laboratory course or a course that includes laboratory work; these courses are designated CAS-D/LAB in course descriptions. Nine of these hours may also fulfill Group IV (Natural Science) of the Miami Plan if they are designated MPF IV.

Physical science includes all courses offered by the departments of Chemistry and Biochemistry, Geology, and Physics; AER 118; GEO 121, and GEO 424. (Other geography courses may be used to fulfill CAS-C, social science.)

Biological science includes all courses offered by the departments of Botany, Microbiology, and Zoology and GEO 431, 432.

CAS-E Formal Reasoning (3 semester hours)

Liberally educated students enhance their capacity to reason through the study in inductive and deductive thinking. Disciplines that employ formalized languages as the means to develop such thinking include mathematics, statistics, logic, and linguistics.

College courses in formal reasoning explicitly develop the student's ability to:

- generate conjectures and hypotheses inductively by examining patterns, trends, and examples and counter-examples;
- confirm or reject these conjectures by formal deductive logic;
- recognize that certain types of knowledge are dependent upon the application of systematic argument based on specific sets of assumptions; and
- begin to apply skills of formal reasoning and critical thinking to different sets of assumptions to generate different systems of knowledge.

Requirement: You must complete at least three semester hours chosen from the courses listed below. Courses listed below do not apply for any other sections of the College Requirement (CAS). These hours may also be used to fulfill Group V (Mathematics, Formal Reasoning and Technology) of the Miami Plan if they are designated MPF V.

ENG/SPN 303, GER/ATH 309 Introduction to Linguistics (4)

MTH 121 Finite Mathematical Models (3)

MTH 151 Calculus I (5)

MTH 153 Calculus I (4)

MTH 222 Introduction to Linear Algebra (3)

MTH 249 Calculus II (5)

MTH 251 Calculus II (4)

PHL 273 Formal Logic (4)

PHL 373 Symbolic Logic (4)

STA 261 Statistics (4)

You should consult the mathematics and statistics placement guide in the Academic Planning chapter or an adviser in the department if you are thinking about taking a mathematics course for this requirement.

Within the College of Arts and Science, there are three divisions (areas) of major: humanities, social science, and natural science.

Basic Requirements: Bachelor of Arts (A.B.)

Miami Plan Foundation MPF	Fulfills Both MPF & CAS	College of Arts & Science CAS
I. Composition (6 hrs) **ENG** 109; 111-112; 113		
		CAS-A Foreign Language: • Pass a course at the 202 level, or higher; **NO** courses in translation • Earn required score on CLEP or AP test; see Bulletin for details
II. Fine Arts, Humanities, Social Science (9 hrs) **A. Fine Arts (3 hours)** **B. Humanities (3 hours)**	**MPF Fine Arts** courses that also fulfill CAS-B: **ARC** 188; **ART** 185, 186, 187, 188, 282; **MUS** 185, 189; **THE** 101, 191 **MPF Humanities** courses that also fulfill CAS-A: **FRE** 202 **MPF Humanities** courses that also fulfill CAS-B: 1. **BWS** 224, 225; **CLS** 101, 102; **HST** 111, 112, 121, 122, 197, 198, 209, 224, 225, 254, 260, 296; **LAS** 260 2. **AMS** 246; **CHI** 251, 252, 255; **CLS** 121; **ENG** 121, 122, 123, 124,125,131, 132, 133, 134, 141, 142, 143, 144,161,162,163,165, 168, 246, 247, 248, 251, 252, 254, 255, 271; **FRE** 131; **GER** 161, 231, 251, 252, 321, 322; **JPN** 231, 255; **LAS** 254; **PHL** 161; **RUS** 137, 255; **SPN** 315 3. **PHL** 101, 103, 104, 105, 106, 131 4. **REL** 101, 102, 103, 133, 175, 213, 254, 279; **ART** 279; **JPN** 279; **RUS** 133 **Additional Hours:** **AMS** 205; **ART** 185, 186, 187, 188, 282; **COM** 135, 206, 247, 281; **DST** 169; **ENG** 169, 171, 202, 238; **FST** 201, 206; **GER** 151; **IDS** 206; **IMS** 171, 238; **ITL** 221; **JRN** 101; **MUS** 185; **WMS** 202	**CAS-B Humanities (9 hrs)** • Take 6 hours from **two** of the following four areas in the College: 1. **History** - any **HST** course; **CLS** 101, 102 2. **Literature** - any **CAS-B Lit** course in **ENG, CLS, THE,** or foreign language course 3. **Philosophy** - any **PHL** course except 161, 273, 373 4. **Religion** - any **REL** course • Take additional 3 hours from any of the areas above or the following MPF courses: **AMS** 205; **ARC** 188; **ART** 185, 186, 187, 188, 282; **COM** 135, 206, 247, 281, 282; **DST** 169, 247; **ENG** 169, 171, 202, 238; **FRE** 212; **FST** 201, 206, 281, 282; **GER** 151, 212; **HST** 211; **IDS** 206; **ITL** 221; **IMS** 171, 238; **JRN** 101; **MUS** 185, 189; **RUS** 212; **WMS** 202
C. Social Science (3 hours)	**MPF Social Science** courses that also fulfill CAS-C: 1. **ATH** 155, 175, 185, 206, 207, 209 2. **ECO** 201, 202 3. **GEO** 101, 111, 201, 207, 208, 209 4. **POL** 101, 102, 142, 159 5. **PSY** 111, 210 6. **SOC** 141, 151, 152, 208; **GTY** 154 **Additional Hours:** **BWS** 151; **COM** 134, 136, 143; **EDP** 101, 201; **ITS** 201, 208; LAS 207, 208; **KNH** 276; **SPA** 127, 211, 223; **WMS** 201	**CAS-C Social Science (9 hrs)** • Take 6 hours from two of the following six areas in the College: 1. **Anthropology** - any **ATH** course 2. **Economics** - any **ECO** course 3. **Geography** - any **GEO** course, except **GEO** 121, 424, 431, 432 4. **Political Science** - any **POL** course 5. **Psychology** - any **PSY** course 6. **Sociology & Gerontology** - any **SOC** or **GTY** course • Take additional 3 hours from any of the areas above or the following MPF courses: **BWS** 151; **COM** 134,136,143; **EDP** 101, 201; **ITS** 201; **KNH** 276; **LAS** 207, 208; **SPA** 127, 211, 223; **WMS** 201
III. Global Perspectives (6-9 hours) **A. Study Abroad (min 6 hrs)** -OR- **B. Global Courses (9 hrs)** -OR- **C. One Global Cluster (9 hrs)**	**Note:** Courses are currently being approved for the Global Perspectives requirement and many will be used in the CAS requirements; please refer to the Liberal Education website: (http://www.units.muohio.edu/led/)	
IV. Natural Science (9 hrs, including a lab) **A. Biological Science (at least 3 hrs)** **B. Physical Science (at least 3 hrs)**	**MPF Natural Science** courses that also fulfill CAS-D; courses in parentheses ( ) are lab courses: **Biological Science:** **BOT** 101 (115), (116),131, (155), 171, 181, (191); **MBI** 111, (115), (116), 121, (123), 131, (143), (161); **ZOO** (113), (114), (115), (116), 121, (161), (171) **Physical Science:** **AER** 101, 118; **CHM** (111), (131), 137, 141, (144), (153); **GEO** (121); **GLG** 111, (115L),121, 141; **PHY** 101, (103), 111, 118, 121, 131, 141,181, 182, (183), (184)	**CAS-D Natural Science (10 hours)** • Take 3 hours from courses in the College in the biological sciences (Any course in **BOT, MBI, ZOO**; or **GEO** 431, 432) • Take 3 hours from courses in the College in the physical sciences (Any course in **CHM**, **GLG**, **PHY**; or **AER** 101, 118; **GEO** 121, 424) • Take additional hours from either category above; one course must be, or include, a lab designated as **CAS-D/LAB** in the Bulletin.
V. Mathematics, Formal Reasoning, and Technology (3 hrs)	**MPF Mathematics, Formal Reasoning, and Technology** courses that also fulfill CAS-E: **ATH** 309; **ENG** 303; **GER** 309; **MTH** 121, 151, 153, 249; **PHL** 273; **SPN** 303; **STA** 261	**CAS-E Formal Reasoning (3 hours)** • Take 3 hours within the College of Arts and Science from the list to the left, or **PHL** 373

Perspectives (Cultural and Historical, one course in each)
Focus: ≈12 hours (Thematic Sequence ≈9 hours; Senior Year Capstone Experience: 3 hours)

Advanced hours (200 level and above): 56 hours minimum
Hours in the major: 24 hours minimum; some departments require more

TOTAL SEMESTER HOURS REQUIRED FOR GRADUATION: 128 hours (minimum)
GRADE POINT AVERAGE REQUIRED FOR GRADUATION: 2.00 cumulative; 2.00 average for courses in department of major

Basic Requirements: Bachelor of Science (B.S.)

Miami Plan (MP)

English Composition 6
Fine Arts, Humanities, Social Science 9
Global Perspectives 6-9
Natural Science.....9
Mathematics, Formal Reasoning, Technology 3
Perspectives (Historical and Cultural)
Focus 12

College of Arts and Science (CAS)

CAS-A, Foreign Language 0-14
(See chart on preceding page.)
In addition, B.S. students only: passing a reading examination in a foreign language over suitable material from within student's discipline.

Advanced hours (those at 200-level and above)	56 minimum
Hours in the major	24 minimum; some departments require more

TOTAL SEMESTER HOURS REQUIRED FOR GRADUATION: 128 (minimum)
GRADE POINT AVERAGE REQUIRED FOR GRADUATION: 2.0 cumulative and 2.0 in all courses taken in your department of major

Area of Major

In order for you to understand these areas and how they pertain to the College requirement, we list below all majors in Arts and Science and which area the major is in:

Humanities

American studies
Black world studies
Classical humanities
Classical languages
East Asian languages and cultures
English (all major programs)
French
German
History
International studies
Italian Studies
Latin American, Latino/and Caribbean studies
Linguistics
Philosophy
Religion
Russian, East European, and Eurasian studies
Spanish

Social Science

Anthropology
Diplomacy and Global Politics
Economics
Geography
Gerontology
Journalism
Mass communication
Political science
Psychology
Public administration
Sociology
Speech communication
Speech pathology and audiology
Strategic communication
Urban and regional planning
Women's studies

Natural Science

Biochemistry
Botany
Chemistry
Clinical laboratory science
Earth Science
Engineering physics
Environmental Earth Science
Geology
Mathematics
Microbiology
Physics
Statistics
Zoology

Interdisciplinary Programs

The College of Arts and Science offers a range of interdisciplinary programs including specialized degrees, major, minors, and co-majors. These interdisciplinary programs allow students to consider a topic, subject, or problem from differing perspectives and to explore connections between those academic disciplines. Students pursuing these programs work closely with professors and advisers to select courses from across the curriculum that will provide opportunities to identify the intersections between multiple disciplines.

The College of Arts and Science offers interdisciplinary programs in the following areas:

Majors:
American Studies
Black World Studies
Individualized Studies (Western Program)
International Studies
Italian Studies
Journalism
Latin American Latino/a and Caribbean Studies
Women's Studies

Co-Majors:
Environmental Principles and Practices
Environmental Science
Interactive Media Studies

Minors:
American Studies
Black World Studies
East Asian Studies
Ethics
European Area Studies
Film Studies
Global Perspectives on Sustainability
Interdisciplinary Studies
Interactive Media Studies
Jewish Studies
Latin American Studies
Medieval Studies

Middle East and Islamic Studies
Molecular Biology
Neuroscience
Women's Studies

Departmental Honors

The College offers a program in departmental honors for students who qualify for and desire independent work in a major field of study under the guidance of a faculty mentor(s). Students who successfully complete such an effort graduate with a departmental honors notation on their transcripts and under their names in the commencement program.

To qualify for entrance into the departmental honors program, you must be a senior, a major in the College of Arts and Science, and have a grade point average of at least 3.5 in the major in which departmental honors work is desired. You must meet specific requirements of the department or academic program in which honors work is to be done; you must consult with the appropriate department or program director about specific requirements.

Students, who qualify, register for course 480 (include department abbreviation; for example, BOT 480): departmental honors (1-6, maximum 6) for a minimum total of 4 semester hours and a maximum total of 6 semester hours. These credits may be taken in one or more semesters of your senior year. Approvals of the department chair or program director and the faculty mentor of your honors work are required for registration.

Expectations are rigorous and demanding, but the nature of projects varies. Projects might involve independent readings, creative efforts, internships, or research, based in the laboratory, field, or library. The project must result in a tangible product, such as an examination, written report, paper or monograph, oral presentation, work of art, or documentary.

Departmental honors in the College may be coordinated and integrated with work for Senior Directed Study in the University Honors Program. A common project may serve both departmental honors and university honors but separate and distinct presentations must be made to the department or program and to the University Honors Program for evaluation to earn both honors notations.

Notes on Credit Restrictions

Before registering for your courses, you should keep in mind these restrictions on credit:

- You may not earn credit for a lower-numbered course in a department if you have already taken a closely related, higher-numbered course for credit. For example, if you have passed French 201, 202, you cannot take French 101, 102 and receive credit for them.
- Credit is not given for closely related courses in two or more divisions.
- You cannot register for more than 20 hours in a semester except with the approval of the Dean.

Combined Programs

Combined programs require students to transfer to other institutions to complete professional training programs. These are also called 3+1 or 4+1 programs (three or four years here, one year at another institution) or 3-2 programs (three years here, two at another institution).

Please understand that in most cases we cannot guarantee your acceptance into a program at another institution.

Clinical Laboratory Science

Clinical laboratory scientists apply scientific background and skills to supervision and performance of diagnostic procedures to determine presence or absence of disease and to monitor response to treatment.

Miami offers two baccalaureate degree programs that include a 12-month laboratory "clinical year." In the 3+1 program, you take three years at Miami followed by an internship to receive a B.S. in clinical laboratory science. In the 4+1 program, you take four years at Miami to earn an A.B. or B.S. in zoology, chemistry, or microbiology, and then you enter the clinical year.

After completing either program, you are eligible to take national registry examinations. Please understand that Miami cannot guarantee your acceptance into a clinical year site.

3+1 Program

This program requires 96 pre-clinical year semester hours at Miami, 32 in advanced courses. You take an interdepartmental sequence of courses in chemistry, microbiology, and zoology. Specific requirements include: general microbiology, pathogenic microbiology, and immunology, a year of general chemistry and a year of organic chemistry (or organic chemistry and biochemistry), one year of general biology; a course in mathematics; competency in computer usage; and completion of a foreign language at second-year level.

You must have at least a 2.5 cumulative grade point average to be eligible for this program.

During your junior year, you must file a petition in the dean's office of the College of Arts and Science to be graduated in this program. When you apply for a clinical year at a hospital, you must have a letter of intent from the Registrar of Miami University.

During your clinical year, you will be registered for MBI 487-488-489 at Miami. These courses fulfill the Miami Plan Capstone Experience requirement. Clinical laboratory rotations and lecture series may include hematology, chemistry, bacteriology, immunology, virology, parasitology, and mycology along with electives such as laboratory management and forensics. After you complete your clinical year and certify this to the Office of the Registrar, you will be awarded the B.S. in clinical laboratory science.

Affiliated training hospitals for this program include The Cleveland Clinic; University of Cincinnati Hospital; Wright State University in Dayton; Southwest General Health Center near Cleveland; Children's Hospital Medical Center of Akron; St. Elizabeth Medical Center in Covington, Kentucky; Parkview Memorial Hospital in Fort Wayne, Indiana; and Vanderbilt University in Nashville, Tennessee; and St. John Health Laboratories in Michigan.

4+1 Program

For this program, you choose a major in chemistry, microbiology, or zoology and fulfill all departmental, Arts and Science, and Miami Plan requirements for the baccalaureate degree. Pre-clinical year course requirements are: a year of general chemistry, a year of organic chemistry (or organic chemistry and biochemistry), a year of introductory biology, and one course in mathematics and general microbiology.

During fall semester of your senior year, you apply to enter a clinical year program at any hospital approved by the National Accrediting Agency for Clinical Laboratory Sciences in the U.S.

For more information about either program in clinical laboratory science, see the program adviser in the Department of Microbiology.

Engineering

Students desiring an engineering degree from another school in addition to a Miami degree may arrange either A.B. or B.S. 3-2 programs with any engineering school.

A.B. requirements for the 3-2 program are in the next section under Arts-Professional Arrangement. B.S. requirements for the 3-2 program are equivalent to these, except for deletion of the A.B. College of Arts and Science Requirement sections A through E, inclusion of the B.S. College of Arts and Science Requirement section A, and substitution of an appropriate B.S. curriculum instead of an A.B. curriculum. Completion of the 3-2 engineering program satisfies the Miami Plan Capstone Experience requirement.

At Miami, your major requirements must be completed unless they are continued in engineering school by recommendation of the major professor and approval of the Committee of Advisers. In particular, you may wish to major in engineering physics, a program described in this chapter with the College's major programs.

Miami has cooperative arrangements with Case Western Reserve University, Columbia University, and Washington University (St. Louis), so that any student satisfying the appropriate 3-2 program requirements will be accepted by Case, Columbia, or Washington University and will receive the Miami degree (A.B. or B.S.) upon receiving the engineering bachelor's degree or sooner.

Environmental Management and Forestry

Miami has a cooperative agreement with Duke University School of the Environment, which allows students to attend Miami for three years and Duke for two years. You receive a B.S. in Botany from Miami and either a Master's in Forestry (M.F.) or a Master's in Environmental Management (M.E.M.) from Duke.

Miami students accepted by Duke can enter the professional master's degree programs at the end of the junior year. Your Miami degree (B.S.) is granted after your first year at Duke when Miami's requirements are met.

Basic requirements for recommendation to Duke's programs are 96 semester hours at Miami, including 32 at or above the 200 level, a cumulative grade point average of 2.5, and completion of both the Miami Plan and College of Arts and Science Requirement A (foreign language).

In the first semester of your junior year, you must file a petition with the College of Arts and Science to request a recommendation for the program, and you must apply to Duke for admission. Deadline is **February 1** for fall admission and **October 15** for winter admission. Duke also requires the Graduate Record Examination (GRE) for admission. You should arrange to take this test the first semester of your junior year.

Courses required for the three years of study at Miami are:

Departmental Requirements (24 hours, 14 must be advanced hours)
BOT 115 and 116 Biological Concepts (4, 4) **or**
BOT 191 Plant Biology (4) **plus** BOT 116 (4) **or** ZOO 114 (4)
BOT 203 Introduction to Plant Cell and Molecular Biology (4)
BOT 204 Evolution of Plant Biodiversity (4)

Related Hours
ECO 201
MTH 151, 251, or 249
STA 261
Thematic Sequence in chemistry (18 hours)

Recommended Electives
CSE 163, 253, 283
ENG 215, 313
GEO 437, 447, 448
GLG 111, 115L
IES 431, 450
PHY 171, 172, 181, 182
POL 261, 362

Environmental Principles and Practice Co-Major

The environmental principles and practice co-major emphasizes human-nature interaction in understanding environmental patterns and processes. Students are prepared to pursue a wide variety of career paths and post-graduate degrees in environmental science, especially those with management and policy specializations. The term "co-major" indicates that students must complete another major at Miami University. The environmental principles and practice co-major complements the primary major, which provides significant depth and breadth in an academic discipline. There is no specific degree designation for the co-major; students receive the degree designation of their primary major.

Environmental Science Co-Major

The environmental science co-major emphasizes earth science and life science approaches to understanding environmental patterns and processes. Students are prepared to pursue a wide variety of career paths and post-graduate degrees in environmental science, especially those with biological and physical science specializations. The term "co-major" indicates that students must complete another major at Miami University. The environmental science co-major complements the primary major, which provides significant depth and breadth in an academic discipline. There is no specific degree designation for the co-major, students receive the degree designation of their primary major.

Interactive Media Studies Co-Major

The co-major in interactive media studies is an interdisciplinary major that is designed to complement the traditional disciplinary-focused major. (It cannot be taken independently of a disciplinary focus). This co-major includes courses that span across the breadth of Miami University's offerings. From art to the humanities to computer science, the IMS co-major brings the inherently interdisciplinary world of technology to the traditionally disciplined student. There are four concentrations within the co-major that allow students to focus their experience on a particular area of interactive media, and to better complement their disciplinary area of focus. These concentrations include:

- Digital Art and Design
- Digital Game Studies
- Digital Humanities and Social Science
- Self-Designed (adviser approval required)

An application and "portfolio" are required for admittance. There is a minimum 2.50 g.p.a. requirement and a limited number of students are admitted each year.

Arts-Professional Arrangement

In addition to the combined programs above, we offer the Arts-Professional Arrangement as another way to earn a professional degree in less than normal time. This arrangement is open only to students working for the Bachelor of Arts (A.B.) degree.

This program allows you to substitute your senior year at Miami with the first year of an accredited professional school. Schools include those in business administration, dentistry, engineering, forestry, law, medicine, nursing, public health, or theology.

The Miami A.B. is usually awarded at commencement following the first year in professional school. If you have not earned at least a 2.0 grade point average for your first year of professional school, your Miami degree will not be awarded until you have finished the professional degree.

To be graduated under the Arts-Professional Arrangement, these requirements must be met: you must earn at least 96 Miami semester hours, including 32 hours at 200 level or above, with a 3.0 grade point average; you must complete the Miami Plan requirements, the College Requirement, and all requirements of your major (except those that can be continued in professional school); and you must file a petition with the College of Arts and Science by the end of your junior year.

Students transferring to Miami at the end of their freshman year may petition for a reduction of the 96 Miami hours required for this program, as long as this reduction does not exceed 32 hours.

For more information, consult an adviser in the College of Arts and Science.

Geographic Information Science Certificate

This certificate program focuses on the theory and techniques of geographic information science (GISci.). GISci is a suite of techniques for collecting, analyzing, and communicating information about the Earth's surface through technologies such as geographic information systems, satellite and aerial imaging, and global positioning systems (GPS).

Program Requirements (18 semester hours)

All of these:
GEO 441 Introduction to Geographic Information Systems (3)
GEO 442 Advanced Geographic Information Systems (3)
GEO 448 Techniques and Applications of Remote Sensing (3)

One of these:
CSE 163 Introduction to Computer Concepts and Programming (3)
MIS 281 Building Web-Based Business Applications I (3)

One of these:
CIT 214 Database Design and Development (3)
MIS 302 Database Theory and Practice (3)

One of these:
GEO 340 Internship (min. 3)*
GEO 444 GIScience Techniques in Landscape Ecology (3)
GEO 447 Aerial Photo Interpretation (4)
Any GEO course focusing on GIS or remote sensing techniques (3)

* With the expectation that the internship involves GIS.

Planning for Law School

Law school is a popular option for Arts and Science majors. Almost 300 students applied to law school in 2007-08; about 80% (national average is 67%) gained admission to at least one institution.

Students interested in law school are encouraged to select a major that interests them. Regardless of the major you select, you should take courses that will enhance those skills that are necessary for success in law school.

According to the Law School Admission Council, "as long as [students] receive an education including critical analysis, logical reasoning, and written and oral expression, the range of acceptable college majors is very broad." To develop these very essential skills, students should consider taking courses in the humanities, such as political science or history (critical analysis), philosophy (logic), communication and English (oral/written communication), and math and science (analytical reasoning).

Most law schools have high standards for grade point average (g.p.a.) and Law School Admission Test (LSAT) scores. In fact, the median g.p.a. for students accepted to the top 25 percent of law schools exceeds 3.50. Similarly, the median LSAT score for these schools is 160 (120-180 scale). In addition to success in the classroom, participation in community service, student activities, leadership training and experience, and study abroad are a plus.

If you are interested in law school, you should contact a pre-law adviser in our Pre-Law Center in 159 Upham Hall as early in your college career as possible.

Planning for Medical, Dental, and Veterinary Schools

Most medical, dental, and veterinary schools limit admission requirements to allow for students from a variety of undergraduate programs. All schools recognize the desirability of a broad education that includes a strong foundation in natural sciences, the basis for study and practice of health professions; communication skills, essential for developing successful relationships with the public and professionals; and social sciences and humanities, in order to better understand yourself and others.

Therefore, you should follow an undergraduate program that is as broad and comprehensive as possible in order to prepare for a career in a people-oriented profession in a changing society. Pursuing a double major in sciences is not advised if it is done at the expense of obtaining a broad education.

Common admission requirements include two years of chemistry, two years of biology, one year of physics, and one year of English. However, requirements of schools may vary. You should therefore consider individual requirements of schools and plan your curriculum accordingly.

Students who plan to go to professional schools should see an academic adviser before taking any course on a credit/no-credit basis. In addition, using AP credit for classes required by professional schools *is not* recommended.

Many students planning to attend medical, dental, or veterinary school major in zoology, microbiology, chemistry or biochemistry.

A recommended program for your first year is:

BOT/MBI/ZOO 115, 116 Biological Concepts (4, 4) **or**
ZOO 113, 114 (4, 4) **or**
MTH 151, 251 (5, 4)
CHM 141, 142 College Chemistry (3, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2) **or**
CHM 153, 161 (2, 2)
ENG 111, 112 College Composition, Composition and Literature (3, 3)
Electives (applying toward the College Requirement and Miami Plan)

Science courses are demanding and for many freshmen the first semester is a difficult period. Therefore, your electives should not be difficult courses for you.

During your sophomore and/or junior year, take organic chemistry and lab (CHM 241, 242 and 244, 245 or 251, 252 and 254, 255) and physics and lab (PHY 171, 172 and 183, 184 or 181, 182 and 183, 184). A year of biology (BOT/MBI/ZOO 115, 116 or ZOO 113, 114) should be taken sometime during your first two years.

Medical schools require the Medical College Admission Test (MCAT), dental schools require the Dental Admission Test (DAT), and most veterinary schools want the Graduate Record Exam. You are strongly urged to talk with a pre-professional adviser as early as possible in preparing for one of these careers.

For information, talk with one of our pre-medicine advisers in zoology or in chemistry and biochemistry, microbiology, physics, or psychology. Pre-dentistry and pre-veterinary advisers are also in zoology.

Planning for Optometry School

Typical admission requirements for optometry school include one year of English, one year of biology, two years of chemistry, one year of physics, one semester of mathematics (calculus and statistics), one semester of psychology, one year of social science, one semester of microbiology, and one or two semesters of physiology. Since specific requirements vary, you should contact schools where you may apply, and plan your curriculum

accordingly. Most pre-optometry students major in zoology, chemistry, or microbiology.

Optometry schools require the Optometry Admission Test. It is available only online (*www.opted.org/info_oat.cfm*).

A recommended program for your first year is:

BOT/MBI/ZOO 115, 116 Biological Concepts (4, 4)
CHM 141,142 (3, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2)
ENG 111, 112 College Composition, Composition and Literature (3, 3)
MTH 151 Calculus (5)
Electives (choose from CAS requirements and Miami Plan Foundation courses)

For more information, consult with the pre-optometry adviser in the Department of Zoology.

Planning for Pharmacy School

Because the Doctor of Pharmacy is now the only accredited degree for pharmacy, you should complete a bachelor's degree (usually in zoology, microbiology, or chemistry), or at least two years of prerequisite coursework, and apply to a Doctor of Pharmacy program.

Typical prerequisites for pharmacy school include course work in calculus; inorganic, organic, and analytical chemistry; English, microbiology, physics, statistics, and zoology. Since specific requirements vary, contact schools of interest, and plan your curriculum accordingly. For more information, consult with the pre-pharmacy adviser in the Department of Zoology.

Planning for Physical Therapy School

If you are interested in a career in physical or occupational therapy, you should take courses that meet the prerequisites for graduate degree programs in those areas. The Pre-Physical and Pre-Occupational Therapy Program at Miami is designed to provide students with the basic science and related courses needed for background preparation and admission into an accredited physical or occupational therapy program.

The American Physical Therapy Association (APTA) has announced that all physical therapy programs must offer doctoral degrees by 2020. According to the American Occupational Therapy Association (AOTA), all baccalaureate occupational therapy programs nationwide are expected to transition to master's degree granting programs by 2007. Therefore, students interested in physical or occupational therapy usually complete their bachelor's degree at Miami and then apply to a master's or doctoral degree program in physical or occupational therapy at another school.

Because there is no standard set of prerequisite courses required by physical or occupational therapy programs, you must contact schools for their requirements. Select courses at Miami that will meet requirements for your program.

The following courses are required prior to admission by most programs (*note that this is only a general guideline*):

BOT/MBI/ZOO115 Biological Concepts (4) **or**
ZOO 113 Animal Diversity (4)
BOT/MBI/ZOO 116 Biological Concepts (4) **or**
ZOO 114 Principles of Biology (4)
CHM 141, 142 (3, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2) **or**
CHM 153, 161
ENG 111 or 112 English Composition (3, 3)
KNH 244, 244L Functional Anatomy and Lab (3, 1)
KNH 381 Biodynamics of Human Activity (4)
KNH 468 Physiology and Biophysics of Human Activity (3)
PHY 171, 172 College Physics (3, 3)
PHY 183, 184 Physics Laboratory (1, 1)
PSY 111 Introduction to Psychology (4)
PSY 231 Developmental Psychology (3)
STA 261 Statistics (4)
ZOO 201 Comparative Anatomy (4) (meets human anatomy prerequisite)
ZOO 305 Animal Physiology (4) **or**
ZOO 161 Principles of Human Physiology (4) (meets human physiology prerequisite)

Other suggested courses include:
CHM 231 Fundamentals of Organic Chemistry (4)
CHM 332 Outlines of Biochemistry (4)
COM 135 Public Expression and Critical Inquiry (3)
PHL 131 (3) **or** PHL 375 (4) **or**
SOC 357 (3) (one semester of philosophy/medical ethics)

For more information, contact a physical therapy program adviser in the Department of Zoology or the Department of Kinesiology and Health.

Special Interest Areas

If you are interested in one of these areas, we suggest you look into the Arts and Science degree program(s) listed beside it.

Area	Arts and Science Major
Advertising	English, mass communication, speech communication
Archaeology	Anthropology, classics, geology, religion
Bacteriology	Microbiology
Biology	Botany, microbiology, zoology
City planning	Urban and regional planning
Creative writing	English/creative writing
Criminology	Sociology, criminology minor
Environmental science	Botany (environmental science emphasis*), earth science, environmental earth science, geography, geology (environmental science emphasis*), zoology; environmental science co-major
Foreign affairs	Diplomacy and foreign affairs, international studies, foreign languages
Forestry	Botany; see also "Combined Programs"
Gerontology	Gerontology, sociology
Government work	Political science, diplomacy and global politics, international studies, public administration, speech communication, urban and regional planning
Journalism	Journalism, mass communication
Language	Linguistics, speech pathology and audiology, foreign languages
Neuroscience	Zoology, psychology
Personnel work	Psychology, public administration, speech communication (organization communication concentration)
Pharmacy	Chemistry, microbiology, zoology
Physical therapy	Psychology, zoology
Public relations	Strategic communication, journalism
Social work	Sociology, psychology
Statistics	Mathematics and statistics, statistics
Television and radio	Mass communication

* Miami has a graduate degree program in environmental science. See the *Graduate Bulletin* for more information

Teacher Licensure

Combining a teacher licensure program with a major in the College of Arts and Science makes a student eligible for two degrees: an A.B. or B.S. degree in the College of Arts and Science and a B.S. in Education degree in the School of Education, Health and Society. Students who wish to combine licensure with an arts and science major must observe rules, procedures, and restrictions pertaining to admission to a licensure cohort.

If you choose to earn two degrees, you must meet all requirements for the Miami Plan, the College of Arts and Science, and teacher licensure. Early in your program, you should plan your schedule with academic advisers from both the College of Arts and Science and the School of Education, Health and Society.

The following departments offer the possibility of combining the teacher licensure program with an Arts and Science major: botany, chemistry, classical languages, economics, English, French, geography, geology, German, history, mathematics, physics, political science, Spanish, and zoology.

For information, contact the Department of Teacher Education in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6443).

Major Requirements: College of Arts and Science

American Studies- Bachelor of Arts

For more information, contact the Director of American Studies, 120 McMillan Hall, (513-529-5333).

This program is for students interested in the study of culture in the United States from an interdisciplinary perspective. Drawing from a range of disciplines and approaches, students have the opportunity to explore issues of political, social, and regional identity, cultural diversity, and national character, as well as public and popular culture as they have evolved from the colonial period to the present. The major encourages the study of the complex modern society of the United States as a whole, and at the same time allows students to pursue their particular interests by developing an area of concentration within the field. These concentrations might focus on historical moments, geographical regions, or social groups; or modes of thinking, expression or behavior, as well as public history and museum studies. Students are able to work with the program director to define their own program of study and combine courses in creative ways. For a complete list of courses that fulfill requirements, please contact the director.

Program Requirements (34 semester hours)

Core courses (16 hours)
AMS 205 Introduction to American Studies (3)
AMS 206 Approaches to American Studies (3)
AMS 301 Practice in American Studies (3)
AMS 302 The United States and the World (3)
AMS 401 Capstone in American Studies (4)

Areas of Concentration (18 hours)
Students must select and take 18 credit hours with at least 12 hours at the 200 level and above, incorporating at least three different disciplines from one of the areas of concentration shown below. A comprehensive list of courses in each of these areas is posted on the AMS website and is also available in pamphlet form at the Programs Office.

American Institutions, Ideas, and Experiences: This area of concentration focuses on the core institutions, ideas, and expressions that define America as a nation. It provides a traditional American Studies track.

Diversity and Difference: This area of concentration focuses on the diversity of cultures that come together in the United States, addressing issues of race, gender, class, religion, ethnicity, sexual identity, and other social categories. It provides the equivalent of an ethnic studies track.

Popular Culture, Media, Consumerism: This area of concentration focuses on consumer culture, popular culture, and mass media.

Public Culture and Civic Engagement: This area of concentration focuses on the practices and activities of civic engagement, the construction of shared identity and public memory, and the interpretation, presentation, and preservation of cultural resources.

Student Designed Area of Concentration: (developed in consultation with an adviser) This area of concentration allows a student to work with a faculty adviser to develop an individualized area of concentration in American culture. The proposed concentration needs to be approved by the director of the American Studies Program before course work is initiated.

Anthropology- Bachelor of Arts

For information, contact the Department of Anthropology, 120 Upham Hall (513-529-8399).

The major in anthropology exposes students to the field as a whole. At the same time, you have the opportunity to pursue individual interests.

Anthropology is a holistic, interdisciplinary science of humanity. It is the study of people: their origins, adaptations and ecology, distribution, forms of communication, beliefs and values. Integrating the hard sciences, social sciences and the humanities, anthropology strives to give students a solid liberal arts background in conjunction with strong research experience and a broad perspective on the human condition.

Program Requirements (36 semester hours distributed as follows, A through D)

A. Core Requirements

All of these:
ATH 212 Introduction to Archaeological Theory and Methods (3)
ATH 231 Perspectives on Culture (3)
ATH 255 Foundations of Biological Anthropology (3)
ATH 265 Language and Culture (3)
ATH 421 Senior Seminar in Anthropology (3)

B. Cluster Requirements

At least one course must be taken in at least three of the following clusters. A selected course may not be used in more than one cluster. At least three courses must come from any one cluster. One course from the cluster requirements must be a designated Practicum course. To meet the 36 credit hour total for the Anthropology Major, additional courses may be chosen from any of the clusters. Students may petition to the CDA to have particular variable topic courses apply to a particular cluster depending on the course emphasis of the teaching faculty member.

Course Clusters:

Engaging the Other:
ATH 303 Native American Cultures (4)
ATH 304 Contemporary Issues in Native American Life (3)
ATH 305 Peoples and Cultures of Latin America (3)
ATH 306 Peoples and Cultures of Russia (3)
ATH 307 Peoples and Cultures of the Middle East (3)
ATH 329 Religions of Africa (3)
ATH 335L Minority Peoples of Europe (3)
ATH 364 Language and Culture in Native North America (3)
ATH 366 African Oral Traditions (3)
ATH 411/511 Applied Anthropology (3)
ATH 425 Ethnographic Field Methods (3)
ATH 426/526 Ethnographic Field Research (4-16)
ATH 484 Beyond the Field Experience: Processing Cultural Adjustments (3)

Ethnography and Culture:
ATH 301 Intercultural Relations (3)
ATH 325 Identity, Race, and Gender (3)
ATH 331 Social Anthropology (3)
ATH 358 Travelers, Migrants and Refugees (3)
ATH 384 Anthropology of Capitalism: Russia (3)
ATH 402 Anthropology of the American Circus (3)
ATH 411/511 Applied Anthropology (3)
ATH 425 Ethnographic Field Methods (3)
ATH 426/526 Ethnographic Field Research (4-16)
ATH 432 Social Identities (3)
ATH 434 Anthropology of Democracy and Citizenship (3)
ATH 455 Heredity, Environment, & Human Society (3)
ATH 461/561 Language Ideologies & Cultural Identities (3)

The Encultured Body:
ATH 348 Culture, Illness, and Healing (3)
ATH 368 Key Questions in Psychological Anthropology (3)
ATH 378 History and Culture of Western Biomedicine (3)
ATH 428/528 Anthropology of Women's Health (3)
ATH 448 Developing Solutions in Global Health (3)
ATH 476/576 Environment and Aging (3)

ATH 497/597 Socio-Ecology of Primates (3)
ATH 498/598 Evolution of Human Behavior (3)

Material Worlds:
ATH 388 Culture, Art, and Artifact (3)
ATH 416 Archaeological Site Analysis (3)
ATH 441 Museum Development, Philosophy, and Social Context (3)
ATH 443/543 The Museum Exhibit (3)
ATH 444 Museum Collections Management and Conservation (3)
ATH 471/571 Ecological Anthropology (3)

Pathways to the Past:
ATH 312 Introduction to North American Archaeology (4)
ATH 313 Introduction to South American Archaeology (4)
ATH 314 Old World Archaeology (4)
ATH 351 Archaeological Field Methods (8)
ATH 388 Culture, Art, and Artifacts (3)
ATH 414 Caribbean Archaeology (3)
ATH 415 Caribbean Archaeology Field and Laboratory Methods (6)
ATH 416 Archaeological Site Analysis (3)
ATH 431/531 Origins of the State (3)
ATH 443/543 The Museum Exhibit (3)
ATH 444 Museum Collections Management and Conservation (3)

Language, Discourse & Communicative Practices:
ATH 309 Introduction to Linguistics (4)
ATH 364 Language and Culture in Native North America (3)
ATH 366 African Oral Traditions (3)
ATH 461/561 Language Ideologies & Cultural Identities (3)
ATH 465/565 Seminar in Linguistic Anthropology (3)

Evolution, Ecology, & Behavior:
ATH 348 Culture, Illness, and Healing (3)
ATH 355 Fossil Evidence for Human Evolution (3)
ATH 395 Primate Biology and Behavior (3)
ATH 455 Heredity, Environment, & Human Society (3)
ATH 496 Observing Primate Behavior (4)
ATH 497/597 Socio-Ecology of Primates (3)
ATH 498/598 Evolution of Human Behavior (3)

Practicum Courses:
ATH 351 Archaeological Field Methods (8)
ATH 415 Caribbean Archaeology Field and Laboratory Methods (6)
ATH 416 Archaeological Site Analysis (3)
ATH 425 Ethnographic Field Methods (3)
ATH 426/526 Ethnographic Field Research (4-16)
ATH 443/543 The Museum Exhibit (3)
ATH 444 Museum Collections Management and Conservation (3)

Note: Variable Topic, Honors & Independent Study courses will be placed in the appropriate clusters based on content.

ATH 177, 277, 377, 477 Independent Study (1-5)
ATH 340 Internship (1-20)
ATH 390 Horizons of Anthropology (1-6)
ATH 480 Independent Reading for Departmental Honors (3-6)
ATH 491 Anthropology Practicum (1-4; maximum 8)

C. Other Requirements and Restrictions:
No more than 6 hours in variable content courses (e.g., ATH 377, ATH 390, ATH 477, ATH 480, ATH 491) may count toward the 36 hour requirement. Variable content courses willbe allocated to the appropriate cluster, topic dependent. Students may count one introductory course (ATH 155, ATH 175, ATH 185 or ATH 235) as an elective toward the major.

D. Related Hours (at least 16 hours):
Any course at the 200 level or above from: Botany, Classics, Comparative Religion, Geography, Geology, History, Microbiology, Philosophy, Political Science, Psychology, Sociology, Zoology will apply. Other courses may be petitioned through the Chief Departmental Advisor in Anthropology.

Biochemistry- Bachelor of Arts

For information, contact the Department of Chemistry and Biochemistry, 160 Hughes Laboratories (513-529-2813).

This program is for students interested in a career in the life or health sciences or biochemistry. Students who anticipate graduate study in biochemistry should elect the B.S. Biochemistry program. Chemistry and required related courses cannot be taken on a credit/no-credit basis.

Program Requirements (35-36 semester hours)

All of these:
CHM 141,142 College Chemistry (3, 3) or
CHM 141R ,142 College Chemistry (4,3)
CHM 144,145 College Chemistry Laboratory (2, 2)
CHM 147 Introductory Seminar (1)
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3) **or**
CHM 241, 242 Organic Chemistry (3, 3) **and**
CHM 244, 245 Organic Chemistry Laboratory (2, 2)
CHM 363 Analytical Chemistry (3)
CHM 432 Fundamentals of Biochemistry (4)
CHM 438 Biochemistry Laboratory (2)
CHM 471, 472 Physical Chemistry (3, 3)

Related Hours (26-28 required)
All of these:
MTH 151, 251 Calculus I, II (5, 4) or equivalents
PHY 181 General Physics (4)
PHY 183 General Physics Laboratory (1)

One of these:
BOT/MBI/ZOO 116 Biological Concepts (4)
BOT 191 General Botany (4)
ZOO 114 Principles of Biology (4)

One of these:
Any course at the 300 level or above in BOT, MBI, or ZOO
CHM 364 Analytical Chemistry Laboratory (2)
CHM 417 Advanced Inorganic Chemistry (3)
CHM 426 Spectroscopic Identification of Structure (3)

Additional courses from the above category or PHY 182,184 The Physical World/Physics Lab (4, 1) to reach 26 hours. **Note:** pre-medicine students must take PHY 182,184.

Biochemistry- Bachelor of Science

For information, contact the Department of Chemistry and Biochemistry, 160 Hughes Laboratories (513-529-2813).

This major is usually chosen by students who want to enter the chemical industry or graduate school in chemistry, biochemistry, or related areas. No chemistry or required related courses may be taken credit/no-credit.

Program Requirements (40-44 semester hours)

All of these:
CHM 141,142 College Chemistry (3, 3) or
CHM141R, 142 College Chemistry (4, 3) **or**
CHM 141, 142M College Chemistry (3, 3)
CHM 153 General Chemistry Laboratory (2) **or**
CHM 144 College Chemistry Laboratory (1) (*with approval*)
CHM 147 Introductory Seminar (1)
CHM 161 Quantitative Analysis (2) **or**
CHM 145H College Chemistry Laboratory (Honors) (2)
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)
CHM 254, 255 Organic Chemistry Laboratory for Chemistry Majors (3, 2)
CHM 471, 472 Physical Chemistry (3, 3)
CHM 433, 434 Biochemistry (3, 3)
CHM 438 Biochemistry Laboratory (2)
CHM 454 Instrumental Analysis (3)

One semester hour of laboratory from these: CHM 340, 418, 455, 477, 490; MBI 465; or ZOO 443.

Related Hours (40 required)
All of these:
BOT/MBI/ZOO 115, 116 Biological Concepts (4, 4)
MTH 151, 251, 252 Calculus I, II, III (5, 4, 4) or equivalents
PHY 181, 182 General Physics (4, 4)
PHY 183, 184 General Physics Laboratory (1, 1)

One course from each of these three groups:
MTH 222 Introduction to Linear Algebra (3) **or**
MTH 231 Elements of Discrete Mathematics (3) **or**
MTH 347 Differential Equations (4) **or**
STA 301 Applied Statistics (4) **or**
STA 368 Introduction to Statistics (4)
BOT 342 Genetics (3) **or**
MBI 445 Microbial Genetics (2) **or**
ZOO 342 Genetics (3)
BOT 203 Plant Cell and Molecular Biology (4) **or**
ZOO 203 Introduction to Cell Biology (3) **or**
ZOO 443 Cell Biology (4)

Biology-

See Botany, Microbiology, Zoology

Black World Studies- Bachelor of Arts

For information, contact the director of Black World Studies, 120 MacMillan Hall (513-529-1235).

Black World Studies (BWS) is an interdisciplinary program that offers a unique opportunity for all undergraduate students to gain a better understanding of the historical, social, religious, cultural political experiences, values and expressions of Africans and people of African descent in the U.S. and throughout the world. If focuses on changing constructions of race, class, and gender in local and global contexts. Moreover, the study of black people and black experience will better prepare all students to cope with the ever-increasing demands of a multicultural world. This program stresses critical thinking, reflection, and informed action.

Program Requirements (38-40 semester hours)

1. Take both of these:
BWS 151 Introduction to Black World Studies (4)
BWS 156 Introduction to Africa (4)

2. Take a minimum of two courses from Areas A and B (total of four courses), and a minimum of one course from areas C and D (total of two courses).

3. Choose any four additional courses from the lists below.

Area A. African Experiences and Cultures
Two of these:
ART 235 The Gods are Here: Spirituality and Text in African Art (3)
ART 480 Seminar in African Art (3)
ATH 329 Religions of Africa (3)
BOT 496 Biodiversity of Kenya (5)
BWS/GEO/HST/REL 209 Civilizations of Africa (3)
BWS/HST 224 Africa to 1884 (3)
BWS/HST 225 The Making of Modern Africa (3)
BWS 341 East African History (3)
BWS 342 Africa Since 1942 (3)
BWS/FST 267 National Cinemas: African Film (3)
BWS/GEO 301 Geography of Sub-Saharan Africa (4)
BWS/CLS 310E Identity and Cultural Difference in Greco-Roman Egypt (3)
BWS 324/HST 325 Images of Africa (3)
BWS 339 /POL 338 Contemporary African Politics (3)
BWS/ATH 366 African Oral Traditions (3)
BWS 370 Selected Topics: Black World Studies (3)
BWS/POL 370B African Politics and Society Through Literature (3)
BWS/ENG/FST/POR 381 African Lusophone Literature (3)
BWS/ENG 450A Studies in Genre: The African Novel (3)
BWS/HST 495 Modern African Environmental History (3)
BWS/HST 496 Africa in the 20th Century: Decolonialization and Independence (3)
HST 444 Ancient Egypt (3)
POL 438 Africa in the Global Economy (3)

Area B. African American Experiences and Cultures
Two of these:
BWS/HST 221 African American History (3)
BWS 250C African American Education (3)
BWS/KNH 279 African Americans in Sports (3)
BWS/KNH 292 Dance, Culture, and Contexts (3)
BWS/ENG 336 African American Writing (3)
BWS/ENG 337 African American Writing 1878-1945 (3)
BWS/ENG 338 African American Writing 1946-Present (3)
BWS/HST 365 Civil War and Reconstruction Era (3)
BWS/HST 395 The American South to 1877 (3)
BWS/HST 396 The American South Since 1877 (3)
BWS/SOC 448 The African American Experience (3)
ENG 271 Cultures and Literatures of the American South (3)
ENG 348 Ethnic American Literatures (3)
HST 329 Lynching in America 1865-1940
AMS/MUS 135 Understanding Jazz, Its History and Context (3)
AMS/MUS 285 Survey of African Music in the Diaspora (3)
AMS/MUS 385 The Roots of Black Music: Blues, Gospel, and Soul (3)
AMS/MUS 386 The History and Development of Hip-Hop Culture in America (3)
REL 343 African American Religions (3)

Area C. Afro-Latin and Afro-Caribbean Experiences
One of these:
BWS/POR 383 By- or About (Afro-) Brazilian Women (3)
BWS/LAS 415 Cuba in Revolution: Its History, Politics, and Culture (4)
ENG/LAS 254 Latin American Literature (3)
GEO 405 The Caribbean in Global Context (3)
GEO 461 Migrants and Diasporas (3)
GEO 473 Development and Underdevelopment (3)
GEO 475 Global Periphery's Urbanization (3)

Area D. Perspectives on Gender, Race, Class, and Ethnicity
One of these:
BWS/CLS 210R Race and Ethnicity in Antiquity (3)
BWS/ATH 325 Identity, Race, Gender, Class (3)
BWS 326 Islam in History (3)
BWS/SOC 348 Race and Ethnic Relations (3)
BWS/FSW 362 Family and Poverty (3)
BWS/WMS 370E Feminism and Diaspora: U.S. Women of Color (3)
BWS 380J Black Atlantic: Crosscurrents of Resistance (3)
BWS/HST 386 Race in U.S. Society (3)
BWS/WMS 410A/ENG 470A Black Feminist Theory (3)
BWS/ARC 427 The American City Since 1940 (3)
BWS 433 African American Psychology (3)
BWS/SOC 448 The African American Experience (3)
BWS/GEO 455 Race, Urban Change, and Conflict in America (3)
BWS 470 Social and Political Activism (3)
BWS/GTY 472 Minority Aging (3)
BWS 492 African and African American Sexuality (3)
KNH 386 African Americans and Health Issues (3)
POL 142 American Politics and Diversity (4)
POL 326 Comparative Ethnic Politics (3)
PSY 325 Psychology of Prejudice and Minority Experience (3)
REL 241 Religions of the American People (4)
SOC 372 Social Stratification (3)
SOC 490 Critical Race Theory
WMS 370A Black Women Writers (3)

Botany- Bachelor of Arts

For information, contact the Department of Botany, 316 Pearson Hall (513-529-4200).

Program Requirements
(30 semester hours, 18 must be advanced hours)

All of these:
BOT 115 and 116 Biological Concepts (4, 4) **or**
BOT 191 Plant Biology (4) **and**
Miami Plan Biological Science Course of 3 or more credit hours
BOT 203 Introduction to Cell Biology (3)
BOT 203L Plant Cell Biology Laboratory (1) **or**
BOT 209 Fundamentals of Ecology (3)
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)

At least two (more recommended) of these:
BOT 203 Introduction to Cell Biology (3)
BOT 205 Dendrology (4)
BOT 209 Fundamentals of Ecology (3)
BOT 302 Plant Taxonomy (4)
BOT 312 Plant and Fungal Diversity (4)
BOT 342 Genetics (3)
BOT 401 Plant Ecology (3)
BOT 402 Plant Anatomy (3)
BOT 403 Plant Development (3)
BOT 409 Morphology of Vascular Plants (4)
BOT 421 Advanced Mycology (3)
BOT 425 Environmental Plant Physiology (4)
BOT 466 Bioinformatics Computing Skills (3)

Note: One course must be at the 300 or 400 level. No more than six hours of BOT 131, 155, or 171 may count toward the major.
No more than four hours of research/internship may count toward the major.

Related Hours (12 required)
A course in CHM of 3 credit hours or more and other courses from the departments of Chemistry and Biochemistry, Computer Science and Software Engineering, Geography, Geology, Mathematics (151, 251, or 252 recommended), Physics, or Statistics.

Note: For graduate study in biological sciences, most programs require organic chemistry, many require calculus and/or statistics, and some require a physics sequence.

Program Requirements: Environmental Science Emphasis
(30 semester hours, 18 must be advanced hours)

All of these:
BOT 115 and 116 Biological Concepts (4,4) (MPF; 116 is also MPT) **or**
BOT 191 Plant Biology (4) (MPF, MPT) **and**
any Miami Plan Biological Science Course of 3 or more credit hours
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4) (MPT)
BOT 209 Fundamentals of Ecology (3)

At least one of these recommended courses:
BOT 203 and 203L, 205, 302, 312, 342, 401, 402, 403, 409, 421, or 425.

Required Related Hours:
Students in this major must satisfy the requirements of the Arts and Science Co-Major in Environmental Science. This co-major also fulfills the Thematic Sequence requirement.

Botany- Bachelor of Science

For information, contact the Department of Botany, 316 Pearson Hall (513-529-4200).

There are three B.S. degree programs: the Basic Major, the major with Environmental Science Emphasis, and the major with Plant Biotechnology Emphasis.

Program Requirements: Basic Major
(40 semester hours, 28 must be advanced hours)

One group from these:
BOT 115, 116 Biological Concepts (4, 4) **or**
BOT 191 Plant Biology (4) **and**
any Miami Plan Biological Science Course of 3 or more credit hours

All of these:
BOT 203 Introduction to Cell Biology (3)
BOT 203L Plant Cell Biology Laboratory (1)
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)

Take a minimum of four of these:
BOT 302 Plant Taxonomy (4)
BOT 312 Plant and Fungal Diversity (4)
BOT 342 Genetics (3)
BOT 401 Plant Ecology (3)
BOT 402 Plant Anatomy (3)
BOT 403 Plant Development (3)
BOT 409 Morphology of Vascular Plants (4)
BOT 421 Advanced Mycology (3)
BOT 425 Environmental Plant Physiology (4)
BOT 466 Bioinformatics Computing Skills (3)
Any BOT 600-level course

Also required: Other BOT courses to total at least 40 hours

Note: No more than six hours of BOT 131, 155, or 171 may count toward this major. No more than six hours of research/internship may count toward the major.

Related Hours (32 hours required)

Thematic Sequence in chemistry (18 hours)

All of these:
PHY 171, 172 College Physics (3, 3) **or**
PHY 181, 182 The Physical World (4, 4) **and**
PHY 183, 184 Physics Laboratory (1, 1)
STA 261 Statistics (4) **or**
STA 301 Applied Statistics (3) **or**
MTH 151 Calculus I (5) **or**
MTH 251 Calculus II (4) **or**
MTH 252 Calculus III (4) **plus**

Additional hours from these departments: Computer Science and Software Engineering, Geography, Geology, Mathematics, Physics, or Statistics.

Program Requirements: Environmental Science Emphasis
(34 semester hours, 26 must be advanced hours)

All of these:
BOT 115, 116 Biological Concepts (4, 4) **or**
BOT 191 Plant Biology (4) **and**
any Miami Plan Biological Science Course of 3 or more credit hours
BOT 203 Introduction Cell Biology (3)
BOT 203L Plant Cell Biology Laboratory (1)
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)
BOT 205 Dendrology (4) **or**
BOT 302 Plant Taxonomy (4)
BOT 209 Fundamentals of Ecology (3)
BOT 425 Environmental Plant Physiology (4)
BOT 434 Plant Community Ecology Methods (1) **or**
BOT 437 Field Methods in Population Ecology (1) **or**
BOT 333 Field Ecology (2)

Other recommended courses to total 34 hours:
BOT 351, 431, 432, 467

Note: No more than six hours of research/internship may count toward the major.

Required Related Hours (37-39 required)

Thematic Sequence in Chemistry (18 hours)
Complete the environmental science co-major.

Note: Most graduate programs in botany or biology require organic chemistry. Many also require calculus and/or statistics, and some require general physics.

Program Requirements: Plant Biotechnology Emphasis
(34 semester hours, 26 must be advanced hours)

All of these:
BOT 115, 116 Biological Concepts (4, 4) **or**
BOT 191 Plant Biology (4) **and**
any Miami Plan Biological Science Course of 3 or more credit hours
BOT 203 Introduction Cell and Biology (3)
BOT 203L Plant Cell Biology Laboratory (1)
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)
BOT 255 Introduction to Biotechnology (3)
BOT 342 Genetics (3)
BOT 415 Techniques in Plant Biotechnology

Other recommended courses to total 34 hours: BOT 424, 425, 466

Required Related Hours (36 Hours)
All of these:
Thematic Sequence in Chemistry (18)
Minor in Molecular Biology (18)

Chemistry- Bachelor of Arts

For information, contact the Department of Chemistry and Biochemistry, 160 Hughes Laboratories (513-529-2813).

This program is for students interested in a career in the life or health sciences, physical sciences related to chemistry, or in teaching chemistry in secondary school. Students who anticipate graduate study in chemistry should elect the B.S. Chemistry Program. Chemistry or required related courses cannot be taken on a credit/no-credit basis.

Program Requirements
(31 semester hours)

All of these:
CHM 141, 142 College Chemistry (3, 3) **or**
CHM 141R, 142 College Chemistry (4, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2)
CHM 147 Introductory Seminar (1)
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3) **or**
CHM 241, 242 Organic Chemistry (3, 3)
CHM 244, 245 Organic Chemistry Laboratory (2, 2)
CHM 363 Analytical Chemistry (3)
CHM 364 Analytical Chemistry Laboratory (2)
CHM 471, 472 Physical Chemistry (3, 3)

Related Hours (26-28 required)

All of these:
MTH 151, 251 Calculus I, II (5, 4) or equivalents
PHY 181, 182 General Physics (4, 4)
PHY 183, 184 General Physics Laboratory (1, 1)

Additional science courses:
Nine credit hours at the 200 level or above in one of the following departments: botany, geology, microbiology, mathematics, physics, or zoology. Note: Pre-medicine students must take biological science courses.

Teaching licensure
Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education and Allied Professions chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

Chemistry- Bachelor of Science

For information, contact the Department of Chemistry and Biochemistry, 160 Hughes Laboratories (513-529-2813).

This program is usually chosen by students who want to enter the chemical industry or graduate school in chemistry, biochemistry, or related areas. This program meets certification requirements of the American Chemical Society. Chemistry or required related courses cannot be taken on a credit/no-credit basis.

Program Requirements
(43-46 semester hours)

All of these:
CHM 141, 142 College Chemistry (3, 3) or
CHM 142R, 142 College Chemistry (4, 3) **or**
CHM 141, 142M College Chemistry (3, 3)

CHM 147 Introductory Seminar (1)
CHM 153 General Chemistry Laboratory (2) **or, with approval:**
CHM 144 College Chemistry Laboratory (2)
CHM 161 Quantitative Analysis (2) **or**
CHM 145H College Chemistry Laboratory (Honors) (2)
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)
CHM 254, 255 Organic Chemistry Laboratory for Chemistry Majors (3, 2)
CHM 351, 352 Physical Chemistry for Chemistry Majors (3, 3)
CHM 417 Advanced Inorganic Chemistry (3)
CHM 418 Advanced Inorganic Chemistry Laboratory (2)
CHM 433 Biochemistry (3) **or**
CHM 432 Fundamentals of Biochemistry (4)
CHM 454 Instrumental Analysis (3)
CHM 455 Chemical Measurements I (2)
CHM 456 Chemical Measurements II (2)

One of these:
CHM 426 Spectroscopic Identification of Structure (2)
CHM 434 Biochemistry (3)
CHM 473 Exploring Chemistry With Quantum Methods (3)

Related Hours (29 required)

All of these:
MTH 151, 251, 252 Calculus I, II, III (5, 4, 4) or equivalents
PHY 181, 182 General Physics (4, 4)
PHY 183, 184 General Physics Laboratory (1, 1)

One of these:
MTH 222 Introduction to Linear Algebra (3)
MTH 231 Elements of Discrete Mathematics (3)
MTH 347 Differential Equations (3)
STA 301 Applied Statistics (4)
STA 368 Introduction to Statistics (4)

Two additional credit hours of laboratory at the 200 level or higher in BOT, CHM, GLG, MBI, PHY, PCE, or ZOO. For lecture/lab courses, only lab credit hours count. May include undergraduate research, CHM 340U, 477, 490.

Classical Humanities- Bachelor of Arts

For information, contact the Department of Classics, 105 Irvin Hall (513-529-1480).

Classics is the study of literature, art, history, archaeology, philosophy, and languages of the ancient Greeks and Romans. Achievements of Greco-Roman civilization are important to study for their inherent power and beauty and for the extraordinary influence they have on cultures that followed. Study of the Greco-Roman world deepens your understanding of the origins of Western culture and offers alternatives to social, political, and cultural values of our world. This major gives you a broad spectrum of classical culture and civilization without primary emphasis on study in classical languages.

Graduate work in Classics, Greek, or Latin requires not only appropriate experience reading Greek and Latin, but a reading knowledge of French or German as well. Students planning to go to graduate school should consult with the department as early as possible to design an appropriate course of study.

Program Requirements
(24 semester hours)

Two of these:
CLS 101 Greek Civilization in its Mediterranean Context (3)
CLS 102 Introduction to Roman Civilization (3)
CLS 121 Classical Mythology (3)

One of these:
ART 381 Greek and Roman Architecture (3)
ART 382 Greek and Roman Sculpture (3)
ART 383 Greek and Roman Painting (3)

One of these:
CLS 401 Age of Augustus (3)
CLS 402 Age of Pericles (3)

Choose remaining hours from these:
Any course in classical humanities
Any course in Greek or Latin beyond the first year

Related Hours (16 required)
Choose from such areas as anthropology, architecture, art, history, language, literature, philosophy, and religion to make up an integrated plan of study in classical humanities.
Eight hours of Greek or Latin at the 100 level may be counted toward this requirement. You must obtain the written approval of your adviser for any related hours courses.
Knowledge of at least one other foreign language is recommended.

Classical Languages- Bachelor of Arts

For information, contact the Department of Classics, 105 Irvin Hall (513-529-1480).

This program is an in-depth study of classical culture possible only through the study of the classical language. The literature of ancient Greece, which encompasses epic, lyric, drama, history, rhetoric, and philosophy, established many key genres of literary expression for many centuries in European cultural tradition. Latin literature, forged both in imitation of and reaction against the riches of Greek culture, was the primary vehicle through which Europe acquired its notions of culture and many of its most persistent values.

Graduate work in classics, Greek, or Latin requires not only appropriate experience reading Greek and Latin, but a reading knowledge of German and French as well. Students planning to go to graduate school should consult with the department as early as possible to design an appropriate course of study.

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513) 529-6418.

Program Requirements
(24 semester hours)
Any 24 semester hours in Latin and Greek language and literature at the 200 level or above. Either Greek 102 or Latin 102 can be counted toward the major provided you have taken advanced coursework in the other language.

Related Hours (16 required)
CLS courses can count as related hours. Choose remaining hours from such areas as art, history, language, literature, philosophy and religion with an adviser to make up an integrated plan of study. You must obtain the written approval of your adviser for any related hours courses.
Knowledge of at least one other foreign language is recommended.

Clinical Laboratory Science- Bachelor of Science

For information, contact the Department of Microbiology, 32 Pearson Hall (513-529-5422).

This program is for students who are preparing for the national examination, including sections on key lab specialties such as molecular pathology, microbiology, parasitology, chemistry, immunology and hematology, for certification as Medical Laboratory Scientists (MLS) by the American Society for Clinical Pathology's Board of Certification (BOC).

Special Curriculum Requirements

This program requires 128 semester hours. Required courses include a twelve month, 32 credit clinical laboratory internship. See program description in the Combined Programs section earlier in this chapter. No pre-internship science or related course may be taken on a credit/no-credit basis.

Program Requirements
(80-82 semester hours)

All of these:

CHM 141R College Chemistry (4) **or**
CHM 141, 142 College Chemistry (3, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2)
CHM 231 Fundamentals of Organic Chemistry (4) **and** CHM 332 Outlines of Biochemistry (4) **or**
CHM 241, 242 Organic Chemistry (3, 3) **and** CHM 244, 245 Organic Chemistry Laboratory (2, 2)
MBI 115 Biological Concepts (4)
MBI 116 Biological Concepts (4)
MBI 201, 202 General Microbiology I, II (4, 4)
MBI 405 Pathogenic Microbiology (4)
MBI 415 Immunology Principles and Practice (4)
MBI 487, 488, 489 Clinical Laboratory Science Practicum (8, 12, 12)

Related Hours (13-17 required)
MTH 104 Pre-Calculus with Algebra (5)

At least two of these:
CHM 363, 364 Analytical Chemistry and Laboratory (3, 2)
MBI 435 Medical Mycology (3)
MBI 365 Molecular and Cellular Biology (3)
MBI 464 Human Viruses (3)
PHY 171 College Physics (3)

Communication- Bachelor of Arts

This department's majors are selective. For information, contact the appropriate program area of the Department of Communication, 162 Bachelor Hall (513-529-7472).

Three majors and several context areas within these are offered:

- Bachelor of Arts, major in mass communication. For more information, see mass communication later in this chapter and/or contact that area of the department.
- Bachelor of Arts, major in speech communication. Areas of focus: organizational communication and interpersonal/relational communication. For more information, see speech communication later in this chapter and/or contact that area of the department.
- Bachelor of Arts, major in strategic communication. For more information, see strategic communication later in this chapter and/or contact that area of the department.

Diplomacy and Global Politics- Bachelor of Arts

For information, contact the Department of Political Science, 218 Harrison Hall (513-529-2000).

This program of concentration is designed primarily for students interested in understanding more about comparative and international politics. It is a major appropriate for those interested in international careers. It is also the kind of broad, liberal arts program which many pre-law students will want to consider. Additionally, it provides a solid background for graduate study in comparative politics and international relations.

Core Requirements (minimum 33 hours)

Core courses (all of these):
POL 221 Modern World Governments (4)
POL 241 American Political System (4)
POL 271 World Politics (4)

Diplomacy and international relations (two of these):
POL 326 Comparative Ethnic Politics (3)
POL 346 Global Gender Politics (3)
POL 373 American Foreign Policy (3)
POL 374 Comparative Foreign Policies (3)
POL 376 U.S. National Security Policy (3)
POL 381 Global Governance (3)
POL 382 International Law (3)
POL 386 Global Competition (3)
POL 387 Comparative Security Issues (3)

Politics in global regions (at least two courses from two regional clusters below):

Eurasia and East Asia
POL 328 Politics of Central Asia (3)
POL 331 Development of the Soviet Polity (3)
POL 332 Post-Soviet Russian Politics (3)
POL 335 Politics of East Asia (4)
POL 375 International Relations of East Asia (3)

Africa, Middle East, and Latin America
POL 336 Politics of the Middle East (3)
POL 337 Politics of Latin America (4)
POL 338 Contemporary African Politics (4)
POL 339 Arab Nationalism in World Politics (3)
POL 370B African Politics & Society through Literature (3)
POL 378 Latin America: The Region and the World (3)
POL 438 Africa in the Global Economy (3)

Europe: East and West
POL 321L Comparative European Politics (4)
POL 333 Politics of Western Europe (4)
POL 334 Politics of Eastern Europe (3)
POL 423 European Union: Politics and Policies (4)
POL 425 British and Irish Politics (3)

Note: With approval of advisor, student may apply relevant coursework taken in an approved study abroad program as substitute for one or two courses on politics in global regions.

Required capstone (Students must complete one of the following):
POL 419 Civil Society and Modern Politics (3)
POL 424 Transatlantic Seminar: Politics of International Business (4-6)
POL 439 North American Politics: Unity and Diversity (3)
POL 471 The International System (3)
POL 487 Individual Lives and International Politics (3)
POL 489 Conflict Management in a Divided World (3)

At least 17 hours earned at Miami; a grade point average of at least 2.0 is required; no courses taken credit/no-credit can be applied to major.

Related Requirements (minimum 22 hours)

Cognate courses (all of these):
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
STA 261 Statistics (4)

Advanced foreign language study:
At least 6 semester hours in a foreign language at the 300-level or higher (not in translation).

Study Abroad:
12 semester hours earned in one or more study-abroad programs approved by the Department of Political Science (not more than 6 semester hours earned in study abroad program can be applied to other major requirements).

At least 9 semester hours for Part II requirements must be earned at Miami University; a grade point average of at least 2.0 is required; no courses taken credit/no-credit can be applied toward this requirement.

Earth Science- Bachelor of Arts

For information, contact the Department of Geology, 114 Shideler Hall (513-529-3216).

The Bachelor of Arts in Earth Science is for students who seek a broad understanding of the earth and how it operates but who do not necessarily wish to pursue a career as a professional geologist. It is our most flexible major allowing diverse exploration of earth systems and processes according to student interests.

Program Requirements: Bachelor of Arts
(48 semester hours minimum)

Core requirements. (4 semester hours):

One of these:
GLG 111 The Dynamic Earth (3) **or**
GLG 121 Environmental Geology (3) **or**
GLG 141 Geology of U.S. National Parks (3) or
GLG 115L Laboratory (1)

Electives (minimum 44 semester hours of 200-, 300- and 400-level courses with the following distribution):

Choose up to a maximum of 20 semester hours from any GLG 200-level course including:
GLG 201 Mineralogy (4)
GLG 204 Survival on an Evolving Planet (3)
GLG 211 Chemistry of Earth Systems (3)
GLG 217 Planetary Geology (3)

GLG 244 Oceanography (3)
GLG 261 Geohazards and the Solid Earth (3)

Choose from any 300-level GLG courses including:
GLG 301 Sedimentology and Stratigraphy (4)
GLG 307 Water and Society (3)
GLG 322 Structural Geology (4)
GLG 335 Ice Age Earth (3)
GLG 354 Geomorphology (3)
GLG 357 Igneous and Metamorphic Petrology (4)

Choose at least 9 semester hours from any 400-level GLG course including:
GLG 401 Global Climate Change (4)
GLG 402 Geomicrobiology (3)
GLG 408 Introduction to Hydrogeology (4)
GLG 427 Isotope Geology (3)
GLG 428 Groundwater Flow Modeling (4)
GLG 432 X-ray Powder Diffraction and Clay Analysis (3)
GLG 435 Soils and Paleosols (3)
GLG 436 Paleoclimatology (3)
GLG 450 Sedimentary Basin Analysis (3)
GLG 461 Geophysics (3)
GLG 467 Seismology (3)
GLG 482 Contaminant Hydrogeology (4)
GLG 491 Geochemistry of Natural Waters (3)
GLG 492 Global Tectonics (4)
GLG 496 Isotopes in Environmental Processes (3)

Field experience:
Minimum of 3 semester hours of a field based course. May be fulfilled by credit workshops. Potential course must be approved by GLG CDA.

Up to 12 credits of the following courses may substitute for any GLG 200-level course:
CHM 141, or CHM 141R; CHM 144 College Chemistry/College Chemistry Laboratory (3 or 4, 2)
MTH 151 Calculus I (5) **or**
MTH 153 Calculus I (4) **or**
STA 261 Statistics (4) **or**
STA 301 Applied Statistics (3)
PHY 171 College Physics (3) **or**
PHY 181 The Physical World (4) **and**
PHY 183 Physics Laboratory (1)

East Asian Languages and Cultures-Bachelor of Arts

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This program provides intensive studies in the languages and cultures of East Asia, focusing on Japan and China. Students can choose from either the Japan Concentration, the China Concentration, or a combination.

Related hours which are requirements for the three cases provide a broadly based background for the three curricula. Study abroad is encouraged. Credits earned abroad may count toward the major.

Program Requirements: Japan* Concentration*
(24 semester hours plus 15 related hours)

Required courses in Japanese (15 semester hours)
JPN 201, 202 Second Year Japanese (3, 3)
JPN 301, 302 Third Year Japanese (3, 3)
JPN 401 Japanese Culture and Society in Contemporary Texts I (3)

Selected courses (9 semester hours):
JPN 231 Japanese Tales of the Supernatural in English Translation (3)
JPN 255 Drama in China and Japan in English Translation (3)
JPN 260 Topics in Japanese Literature in English Translation (3)
JPN 266 Survey of Japanese Cinema: Japanese Film and Culture (3)
JPN 279 Buddhism and Culture: China and Japan (3)
JPN 381 Introduction to Japanese Linguistics (3)
JPN 402 Japanese Culture and Society in Contemporary Texts II (3)
Note: These Selected courses may be used in Related hours if not used as Selected courses.

Related hours**
15 semester hours from the following including at least one course from the Japan group:

Japan:
ARC 428 Japanese Architecture (3)
ART 479 Japanese Painting and Prints (3)
HST 356 Modern Japanese History (3)
SOC 408 Contemporary Japanese Society (3)

China:
ART 478 Chinese Painting History (3)
CHI 251 Traditional Chinese Literature in English Translation (3)
CHI 252 Modern Chinese Literature in English Translation (3)
CHI 253 Three Kingdoms (3)
CHI 254 Modern Chinese Autobiography (3)
CHI 255 Drama in China and Japan in English Translation (3)
CHI 264 Chinese Cinema and Culture in English Translation (3)
CHI 277W Chinese Culture Live (1-3)
CHI 402 Fourth Year Chinese (3)
HST 353 History of Chinese Civilization (3)
HST 354 Modern Chinese History (3)
HST/WMS 383 Women in Chinese History (3)
HST 4006 Senior Capstone: Asian (3)
HST 434 China and the Silk Road:
Patterns of China's Interactions with other Peoples before 1600 (3)
GEO 410D Regional Analysis of China (3)

East Asia:
GEO 308 Geography of East Asia (3)
POL 335 Politics of China and Japan (4)
POL 375 International Relations of East Asia (3)
REL 324 Buddhism in China, Korea, and Japan (3)

Linguistics:
ATH/GER 309 or ENG/SPN 303 Introduction to Linguistics (4)

* ** The Chinese minor will also satisfy this requirement.

Program Requirements: China Concentration*
(24 semester hours plus 15 related hours)

Required courses in Chinese (15 semester hours)
CHI 201, 202 Second Year Japanese (3, 3)
CHI 301, 302 Third Year Japanese (3, 3)
CHI 401 Fourth Year Chinese (3)

Selected courses (9 semester hours):
CHI 251 Traditional Chinese Literature in English Translation (3)
CHI 252 Modern Chinese Literature in English Translation (3)
CHI 253 Three Kingdoms (3)
CHI 254 Modern Chinese Autobiography (3)
CHI 255 Drama in China and Japan in English Translation (3)
CHI 264 Chinese Cinema and Culture in English Translation (3)
CHI 277W Chinese Culture Live (1-3)
CHI 402 Fourth Year Chinese (3)

Note: These Selected courses may be used in Related hours if not used as Selected courses.

Related hours**
(15 semester hours from the following including at least one course from the China group):

China:
ART 478 Chinese Painting History (3)
HST 353 History of Chinese Civilization (3)
HST 354 Modern Chinese History (3)
HST/WMS 383 Women in Chinese History (3)
HST 4006 Senior Capstone: Asian History (3)
HST 434 China and the Silk Road (3)
GEO 410D Regional Analysis of China (3)

Japan:
ARC 428 Japanese Architecture (3)
ART 479 Japanese Painting and Prints (3)
HST 356 Modern Japanese History (3)
JPN 231 Japanese Tales of the Supernatural in English Translation (3)
JPN 255 Drama in China and Japan in English Translation (3)
JPN 260 Topics in Japanese Literature in English Translation (3)
JPN 266 Survey of Japanese Cinema: Japanese Film and Culture (3)
JPN 279 Buddhism and Culture: China and Japan (3)
JPN 381 Introduction to Japanese Linguistics (3)
JPN 402 Japanese Culture and Society in Contemporary Texts II (3)
SOC 408 Contemporary Japanese Society (3)

East Asia:
GEO 308 Geography of East Asia (3)
POL 335 Politics of China and Japan (4)
POL 375 International Relations of East Asia (3)
REL 324 Buddhism in China, Korea, and Japan (3)

Linguistics:
ATH/GER 309 or ENG/SPN 303 Introduction to Linguistics (4)

** The Japanese minor will also satisfy this requirement.

Program Requirements: Japan/China Combination
(27 semester hours plus 12 related hours)

Required courses in Japanese and Chinese (15 semester hours)

CHI 201, 202 Second Year Chinese (3, 3)
JPN 201, 202 Second Year Japanese (3, 3)
JPN 301 Third Year Japanese (3) **or**
CHI 301 Third Year Chinese (3)

Selected courses (12 semester hours) from
a. Two of these:
JPN 231 Japanese Tales of the Supernatural in English Translation (3)
JPN 255 Drama in China and Japan in English Translation (3)
JPN 260 Topics in Japanese Literature in English Translation (3)
JPN 266 Survey of Japanese Cinema: Japanese Film and Culture (3)
JPN 279 Buddhism and Culture: China and Japan (3)
JPN 302 Third Year Japanese (3)
JPN 381 Introduction to Japanese Linguistics (3)
JPN 401 Japanese Culture and Society in Contemporary Texts I (3)
JPN 402 Japanese Culture and Society in Contemporary Texts II (3)

b. Two of these:
CHI 251 Traditional Chinese Literature in English Translation (3)
CHI 252 Modern Chinese Literature in English Translation (3)
CHI 253 Three Kingdoms (3)
CHI 254 Modern Chinese Autobiography (3)
CHI 255 Drama in China and Japan in English Translation (3)
CHI 264 Chinese Cinema and Culture in English Translation (3)
CHI 277W Chinese Culture Live (1-3)
CHI 302 Third Year Chinese (3)
CHI 401 Fourth Year Chinese (3)
CHI 402 Fourth Year Chinese (3)
Note: These Selected courses may be used in Related hours if not used as Selected courses.

Related hours
12 semester hours from the following including at least one course each from the China and Japan groups:

Japan:
ARC 428 Japanese Architecture (3)
ART 479 Japanese Painting and Prints (3)
HST 356 Modern Japanese History (3)
SOC 408 Contemporary Japanese Society (3)

China:
ART 311 Chinese Painting History (3)
HST 353 History of Chinese Civilization (3)
HST 354 Modern Chinese History (3)
HST 383 Women in Chinese History (3)
HST 4006 Senior Capstone: Asian History (3)
HST 434 China and the Silk Road (3)
GEO 410D Regional Analysis of China (3)

East Asia:
GEO 308 Geography of East Asia (3)
POL 335 Politics of China and Japan (4)
POL 375 International Relations of East Asia (3)
REL 324 Buddhism in China, Korea, and Japan (3)

Linguistics:
ATH/GER 309 or ENG/SPN 303 Introduction to Linguistics (4)

Economics- Bachelor of Arts

For information, contact the Department of 2054 Farmer School of Business (513-529-2836).

This is one of three programs Miami offers in economics. Another is business-economics in the School of Business Administration. The same core of economics courses is required for both majors; the difference is the divisional requirements. You should choose this program if you are interested in a liberal arts background in addition to your major. The third major is the Bachelor of Science in Quantitative Economics described below.

Honors in Economics

To receive departmental honors, you must meet all of these requirements:

- Completion of ECO 315 and 317 during your junior year with at least a 3.50 g.p.a. If you have not completed this by the end of your junior year, you are not permitted to enroll in ECO 480, 482 except as approved by the honors coordinator.
- Completion of ECO 480, 482 with at least a 3.50 g.p.a.
- Attainment of a minimum 3.50 g.p.a. for all economics courses.
- Completion of a minimum of 30 hours of economics including ECO 311 and two additional courses other than ECO 480, 482 that requires ECO 315 and/or 317 as prerequisite. It is highly recommended that ECO 311 be completed by the end of the junior year.

Program Requirements

(30 semester hours)

All of these:
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
ECO 311 Examining Economic Data and Models (3)
ECO 315 Intermediate Microeconomic Theory (3)
ECO 317 Intermediate Macroeconomic Theory (3)

Fifteen additional hours in economics, including at least six hours in courses that require ECO 315 and/or 317 as prerequisite.

At least nine hours of advanced economics (numbered above 300) must be taken at Miami, including ECO 315 and 317. Up to three hours of Summer Scholar credit can be applied toward the 15 hours of advanced economics. Any exception to this must be approved by the director of undergraduate studies.

Related Hours (16 required)

Calculus. One of these:
MTH 151 Calculus I (5)
MTH 153 Calculus I (4)
MTH 249 Calculus II (5)
MTH 251 Calculus II (4)

Statistics. One of these:
DSC 205 Statistics (4)
STA 261 Statistics (4)
STA 301 Applied Statistics (3)
STA 368 Introduction to Statistics (4)

Choose your remaining hours from accountancy, decision sciences, finance, geography, history, management information systems, mathematics, philosophy, political science, psychology, sociology, statistics, or computer science and software engineering.

Mathematics and statistics beyond the minimum requirement is recommended if you are considering graduate school in economics. See your adviser.

Economics- Bachelor of Science in Quantitative Economics

For information, contact the Department of Economics 2054 Farmer School of Business (513-529-2836).

This program enables students to undertake a more rigorous and quantitative course of study, while still completing their degree work in four years. Additional required courses (including more quantitative courses), combined with more advanced mathematics and statistics requirements are an ideal preparation for graduate training in economics, as well as jobs in business, industry and government that require the more technical tools of economic theory and econometrics.

Honors in Economics

To receive departmental honors, you must meet all of these requirements:

- Completion of ECO 315 and 317 during your junior year with at least a 3.50 g.p.a. If you have not completed this by the end of your junior year, you are not permitted to enroll in ECO 480, 482 except as approved by the honors coordinator.
- Completion of ECO 480, 482 with at least a 3.50 g.p.a.
- Attainment of a minimum 3.50 g.p.a. for all economics courses.
- Completion of a minimum of 30 hours of economics including ECO 311 and two additional courses other than ECO 480, 482 that requires ECO 315 and/or 317 as prerequisite. It is highly recommended that ECO 311 be completed by the end of the junior year.

Program Requirements

(36 semester hours)

All of these:
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
ECO 311 Examining Economic Data and Models (3)
ECO 315 Intermediate Microeconomic Theory (3)
ECO 317 Intermediate Macroeconomic Theory (3)

One of these:
ECO 414 Mathematical Microeconomics (3) **or**

ECO 465 Game Theory with Economic Applications (3) **or**
an acceptable alternative economics, mathematics, or statistics course (alternatives must be approved by the departmental chief adviser, ideally before the student enrolls in the course).

Eighteen additional hours in economics, including at least six hours in courses that require ECO 315 and/or 317 as prerequisite.

At least nine hours of advanced economics (numbered above 300) must be taken at Miami, including ECO 315 and 317. Up to three hours of Summer Scholar credit can be applied toward the 15 hours of advanced economics. Any exception to this must be approved by the director of undergraduate studies.

Related Hours (20 required)

Mathematics - All of these:
MTH 222 Introduction to Linear Algebra (3)
MTH 249 Calculus II (5) or
MTH 251 Calculus I (4) or
MTH 257H Honors Calculus (4)
MTH 252 Calculus III (4)

One of these:
DSC 444 Business Forecasting (3)
DSC 447 Analysis of Multivariate Business Data (3)
MTH 347 Differential Equations (3)
MTH 422 Matrices and Linear Algebra (3)
MTH 432 Optimization (3)
MTH 441 Real Analysis (3)
STA 463 Regression Analysis (3)
STA 467 Multivariate Analysis (3)
STA 483 Analysis of Forecasting Systems (3)

Statistics - Both of these:
STA 301 Applied Statistics (3)
STA 401 Probability (3)

Engineering Physics- Bachelor of Science

For information, contact the Department of Physics, 133 Culler Hall (513-529-5625).

This major prepares students for employment in technical fields or entry into professional engineering programs at the undergraduate or graduate level. Students wishing to participate in the 3-2 combined plan in engineering should choose this major.

Program Requirements: Bachelor of Science
(55-61 semester hours)

All of these (40-44 semester hours):
MTH 151, 251 Calculus I, II (5, 4) **or**
MTH 153, 251 Calculus I, II (4, 4) **or**
MTH 249 Calculus II (5)
MTH 222 Introduction to Linear Algebra (3)
MTH 252 Calculus III (4)
PHY 181, 182 The Physical World I, II (4, 4)
PHY 183, 184 Physics Laboratory (1, 1)
PHY 286 Introduction to Computational Physics (3)
PHY 291 Contemporary Physics (4)
PHY 292 Electronic Instrumentation (3)
PHY 293 Contemporary Physics Laboratory (2)
PHY 294 Laboratory in Electronic Instrumentation (2)
PHY 341 Mathematical Methods in Physics (4)

Plus one of the following paths:

Path 1:
Complete the 3-2 Binary Engineering Program (see additional notes below)

Path 2:
Complete one of the following minors in the School of Engineering and Applied Science at Miami:

- electrical engineering (22 semester hours)
- manufacturing engineering (25 semester hours)
- mechanical engineering (18 semester hours)
- computer science (18 semester hours)
- computer engineering (15 semester hours)

Path 3:
Complete one of the following applied physics tracks:

Electro-Optics Track (16 semester hours):
PHY 441 Optics and Laser Physics (4)
PHY 442 Spectroscopy of Atoms and Molecules (4)
PHY 461 Electricity and Magnetism (4)
PHY 491 Quantum Mechanics (4)

Electrical/Instrumentation Track (22-24 semester hours):
ECE/MME 303 Computer-Aided Experimentation (3)
PHY 423 Materials Physics (4)
PHY 451 Classical Mechanics (4) **or**
MME 143 Engineering Design and Computer Graphics (3) **and**
MME 211 Static Modeling of Mechanical Systems (3)
PHY 461 Electricity and Magnetism (4)
PHY 471 Advanced Electronics (3)
STA 368 Introduction to Statistics (4)
Recommended additional elective: PHY 491 Quantum Mechanics (4)

Materials Track (17-18 semester hours)
CHM 137 College Chemistry (4) **or**
CHM 141 College Chemistry (3)
MME 223 Engineering Materials (3)
MME/PCE 313 Fluid Mechanics (3)
PHY 423 Materials Physics (4)
PHY 437 Intermediate Thermodynamics and Introduction to Statistical Physics (4)
Recommended additional elective: PHY 491 Quantum Mechanics (4)

Biomedical Track (22-29 semester hours)
CHM 137 College Chemistry (4) **or** CHM 141 College Chemistry (3) **and**
CHM 144 College Chemistry Lab (2)
CHM 142,145 College Chemistry/College Chemistry Lab (5)
CHM 231 Fundamentals of Organic Chemistry with Lab (for non-premeds) (4) **or**
CHM 241, 242, 244, 245 Organic Chemistry with Lab (for premeds) (10)
PHY 421 Biophysics (4)
ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)
Recommended additional elective: ZOO 305 Animal Physiology (4)

Program Requirements: 3-2 Program

Students planning an engineering degree may arrange a B.S. 3-2 plan with any engineering school. However, Miami has special cooperative arrangements with Case Western Reserve University, Columbia University, and Washington University (St. Louis), whereby, upon completing all requirements, admission to the engineering program is assured. Students must earn a minimum of 96 hours at Miami (with 32 hours at the 200 level or above) with a g.p.a. of at least 3.00. All Miami Plan and College of Arts and Science requirements must be satisfied. Completion of the 3-2 Program will satisfy the Miami Plan Capstone requirement. Students must file a petition with the College of Arts and Science to participate in the 3-2 Program. For more information see the "Combined Programs" and "Arts-Professional Arrangement" sections that appear elsewhere in the *General Bulletin*.

Note: It is best to begin academic planning in your first year at Miami for later participation in the 3-2 Program. Contact the 3-2 Engineering Liaison Adviser, Chief Departmental Adviser, or your academic adviser in the Department of Physics for more information. All students planning on participating in the 3-2 Program must take at least one year of chemistry (CHM 141 or 137, 144, 142, and 145) and differential equations (MTH 245 or 347) before transferring to the engineering school. Students wishing to specialize in chemical engineering should take CHM 153 and 161 in place of CHM 144 and 145. Organic chemistry should also be taken by students wishing to specialize in chemical or biomedical engineering. If you plan to apply to Case Western Reserve University, Columbia University, or Washington University, you also need to see an adviser in the Department of Physics for more specific information on the requirements of those schools.

English- Bachelor of Arts

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

Three concentrations are offered within the English major: literature, creative writing, and technical and scientific communication. These concentrations lead to an A.B. The department also offers a major in linguistics; see Linguistics later in this chapter.

Program Requirements: English/Literature
(42 semester hours)

Prerequisite introductory course. This one:*
ENG 298 Introduction to Literary and Cultural Studies (3)

* Completed first semester of sophomore year at Miami or first semester after declaring the literature major, whichever is later.

Literary, cultural, or other theory.

One of these:
ENG 368 Feminist Literary Theory (3)
ENG 370 Literary and Cultural Theory (3)
ENG 435 Queer Theory (3)
ENG 470 Topics in Literary Theory (3)

Nine Literature courses, including:
No more than two 100-level courses:
ENG 122 Popular Literature (3)
ENG 123 Introduction to Poetry (3)
ENG 124 Introduction to Fiction (3)
ENG 125 Introduction to Drama (3)
ENG 131 Life and Thought in English Literature, to 1660 (3)
ENG 132 Life and Thought in English Literature, 1660-1901 (3)
ENG 133 Life and Thought in English Literature, 1901-Present (3)
ENG 134 Introduction to Shakespeare (3)
ENG 141 Life and Thought in American Literature, to 1865 (3)
ENG 142 Life and Thought in American Literature, 1865-1945 (3)
ENG 143 Life and Thought in American Literature, 1945-Present (3)
ENG 144 Major American Writers (3)
ENG 161 Literature and Politics (3)
ENG 162 Literature and Identity (3)
ENG 163 Literature and Travel (3)
ENG 165 Literature and Sexuality (3)

ENG 220 Literature and Film (3)
ENG 221 Shakespeare and Film (3)
ENG 230J Jewish-American Literature (3)
ENG 231 The Short Story (3)
ENG 232 American Women Writers (3)
ENG 233 British Women Writers (3)
ENG 237 Gay and Lesbian Literature (3)
ENG 246 Native American Literature (3)
ENG 247 Appalachian Literature (3)
ENG 248 Asian American Literature (3)
ENG 251 Life and Thought in European Literature, to 1800 (3)
ENG 252 Life and Thought in European Literature, 1800-Present (3)
ENG 254 Latino/a Literature and the Americas (3)
ENG 261 Modern Drama (3)
ENG 262 Children's Literature (3)
ENG 271 Cultures and Literature of the American South (3)
ENG 281 The English Novel (3)
ENG 282 American Fiction (3)
ENG 283 Modern Poetry (3)
ENG 293 Contemporary American Fiction (3)

ENG 327 Medieval Literature (3)
ENG 328 The Renaissance: Non-Dramatic Literature (3)
ENG 331 17th Century Poetry and Prose (3)
ENG 334 English Literature of the Restoration (3)
ENG 335 English Literature of the 18th Century (3)
ENG 336 African American Writing, 1746-1877 (3)
ENG 337 African American Writing, 1878-1945 (3)
ENG 338 African American Writing, 1946-Present (3)
ENG 339 Writers of the Early Romantic Period (3)
ENG 342 Writers of the Later Romantic Period (3)
ENG 343 Literature of the Early Victorian Period (3)
ENG 344 Literature of the Later Victorian Period (3)
ENG 345 British Modernism (3)
ENG 346 Modern English and American Drama (3)
ENG 347 Postwar/Postcolonial British Literature (3)
ENG 348 Ethnic American Literatures (3)
ENG 349 Colonial and Early National American Literature, to 1810 (3)
ENG 352 American Literature, 1810-1865 (3)
ENG 353 American Literature, 1865-1914 (3)
ENG 354 American Literature, 1914-1945 (3)
ENG 355 American Literature, 1945- Present (3)
ENG 369 Colonial and Postcolonial Literature (3)
ENG 372 Shakespeare's Principal Plays: The Early Period (3)
ENG 373 Shakespeare's Principal Plays: The Later Period (3)
ENG 390 Studies in American Regionalism (3)

And at least two of these:
ENG 440 Major English and American Writers (3)
ENG 450 Studies in Genre (3)
ENG 468 Gender and Genre (3)
ENG 480 English Honors (3)
ENG 490 Special Topics in Literary Study (3)

Senior Capstone. O*ne of these:*
ENG 460 Issues in Creative Writing (3)
ENG 495 Capstone in Literature (3)

Distribution Requirements
Choose literature courses above to also meet the following group requirements. ENG 440, 450 and 490 may count when the topic/time period is appropriate.

Literature before 1700 *(of which no more than one on Shakespeare)***:** *Two of these:*
ENG 131 Life and Thought in English Literature, to 1660 (3)
ENG 134 Introduction to Shakespeare (3)
ENG 221 Shakespeare and Film (3)
ENG 327 Medieval Literature (3)
ENG 328 The Renaissance: Non-Dramatic Literature (3)
ENG 331 17th Century Poetry and Prose (3)
ENG 334 English Literature of the Restoration (3)
ENG 372 Shakespeare's Principal Plays: The Early Period (3)
ENG 373 Shakespeare's Principal Plays: The Later Period (3)

Literature 1700-1860. *(more than one national tradition, i.e. both courses cannot focus on the same national tradition, e.g., British): Two of these:*

British literature.
ENG 132 Life and Thought in English Literature 1660-1901 (3)
ENG 335 English Literature of the 18th Century (3)
ENG 339 Writers of the Early Romantic Period (3)
ENG 342 Writers of the Later Romantic Period (3)
ENG 343 English Literature of the Early Victorian Period, 1830-1860 (3)

American literature.
ENG 141 Life and Thought in American Literature, to 1865 (3)
ENG 336 African American Writing, 1746-1877 (3)
ENG 349 Colonial and Early National American Literature, to 1810 (3)
ENG 352 American Literature, 1810-1865 (3)

Literature after 1860. *(more than one national tradition, i.e. both courses cannot focus on the same national tradition, e.g., British) Two of these:*

British literature.
ENG 133 Life and Thought in English Literature, 1901-Present (3)
ENG 344 Literature of the Later Victorian Period (3)
ENG 345 British Modernism (3)
ENG 347 Postwar/Postcolonial British Literature (3)

American literature.
ENG 142 Life and Thought in American Literature, 1865-1945 (3)
ENG 143 Life and Thought in American Literature, 1945-Present (3)
ENG 293 Contemporary American Fiction (3)
ENG 337 African American Writing, 1878-1945 (3)
ENG 338 African American Writing, 1946-Present (3)
ENG 353 American Literature, 1865-1914 (3)
ENG 354 American Literature, 1914-1945 (3)
ENG 355 American Literature, 1945- Present (3)

Other Anglophone Traditions.
ENG 369 Colonial and Postcolonial Literature (3)

Ethnic, minority, or women's literature. *One of these:*
ENG 230J Jewish-American Literature (3)
ENG 232 American Women Writers (3)
ENG 233 British Women Writers (3)
ENG 246 Native American Literature (3)
ENG 248 Asian American Literature (3)
ENG 254 Latino/a Literature and the Americas (3)
ENG 336 African American Writing, 1746-1877 (3)
ENG 337 African American Writing, 1878-1945 (3)
ENG 338 African American Writing, 1946-Present (3)
ENG 348 Ethnic American Literatures (3)
ENG 369 Colonial and Postcolonial Literature (3)
ENG 468 Gender and Genre (3)

Literary Genre. *Two of these:*
ENG 231 The Short Story (3)
ENG 261 Modern Drama (3)
ENG 281 The English Novel (3)
ENG 282 American Fiction (3)
ENG 283 Modern Poetry (3)
ENG 450 Studies in Genre (3)

Optional
An elective course, offered in the English Department, may be taken for credit toward major hours but not toward any core or distribution requirements. Courses that cannot count toward major hours include ENG 108, 109, 111, 112, 113. The purpose of this elective is to allow students to take a course in another English program (e.g., creative writing, linguistics, technical and scientific communication), if desired.

Program Requirements: English/Creative Writing
(42 semester hours)

Introduction to Creative Writing. *This one:*
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

Note: ENG 226 is the prerequisite for the 300-level creative writing courses.

Introduction to Literary Studies. *This one:**
ENG 298 Introduction to Literary and Cultural Studies (3)

* Completed first semester of sophomore year at Miami or first semester after declaring the literature major, whichever is later.

Contemporary Writing *One of these:*
ENG 311 Contemporary Fiction (3)

ENG 312 Contemporary Poetry (3)

English Capstone. *One of these:*
ENG 460 Issues in Creative Writing (3)
ENG 495 Capstone in Literature (3)

Nine additional hours of creative writing at 300- and 400 levels, *from these courses:*
ENG 320 Intermediate Creative Writing: Fiction (3; maximum 6)
ENG 321 The Literary Marketplace (3)
ENG 323 Creative Non-Fiction (3)
ENG 330 Intermediate Creative Writing: Poetry (3; maximum 6)
ENG 420 Advanced Creative Writing: Fiction Workshop (3)
ENG 422 Creative Writing: Screenwriting (3)
ENG 430 Advanced Creative Writing: Poetry Workshop (3)

Note: (1) ENG 320 is the prerequisite for ENG 420; ENG 330 is the prerequisite for ENG 430. Students must take an intermediate and advanced course in the same genre, poetry or fiction. (2) Courses may be taken a second time. Repeat credits WILL NOT count toward the major requirement of nine (9) hours of creative writing courses, but will count toward the 128 hours required for a degree.

Distribution Requirements
Choose literature courses above to also meet the following group requirements. No more than one 100-level course may be used to fulfill distribution requirements. ENG 440, 450 and 490 MAY count when the topic/time period is appropriate.

Literature before 1700. *(of which no more than one on Shakespeare)***:** *Two of these:*
ENG 131 Life and Thought in English Literature, to 1660 (3)
ENG 134 Introduction to Shakespeare (3)
ENG 221 Shakespeare and Film (3)
ENG 327 Medieval Literature (3)
ENG 328 The Renaissance: Non-Dramatic Literature (3)
ENG 331 17th Century Poetry and Prose (3)
ENG 334 English Literature of the Restoration (3)
ENG 372 Shakespeare's Principal Plays: The Early Period (3)
ENG 373 Shakespeare's Principal Plays: The Later Period (3)

Literature 1700-1860. *(more than one national tradition, i.e. both courses cannot focus on the same national tradition, e.g., British): Two of these:*

British literature.
ENG 132 Life and Thought in English Literature 1660-1901 (3)
ENG 335 English Literature of the 18th Century (3)
ENG 339 Writers of the Early Romantic Period (3)
ENG 342 Writers of the Later Romantic Period (3)
ENG 343 English Literature of the Early Victorian Period, 1830-1860 (3)

American literature.
ENG 141 Life and Thought in American Literature, to 1865 (3)
ENG 336 African American Writing, 1746-1877 (3)
ENG 349 Colonial and Early National American Literature, to 1810 (3)
ENG 352 American Literature, 1810-1865 (3)

Literature after 1860. *(more than one national tradition, i.e. both courses cannot focus on the same national tradition, e.g., British) Two of these:*

British literature.
ENG 133 Life and Thought in English Literature, 1901-Present (3)
ENG 344 Literature of the Later Victorian Period (3)
ENG 345 British Modernism (3)
ENG 347 Postwar/Postcolonial British Literature (3)

American literature.
ENG 142 Life and Thought in American Literature, 1865-1945 (3)
ENG 143 Life and Thought in American Literature, 1945-Present (3)
ENG 293 Contemporary American Fiction (3)
ENG 337 African American Writing, 1878-1945 (3)
ENG 338 African American Writing, 1946-Present (3)
ENG 353 American Literature, 1865-1914 (3)
ENG 354 American Literature, 1914-1945 (3)
ENG 355 American Literature, 1945- Present (3)

Other Anglophone Traditions.
ENG 369 Colonial and Postcolonial Literature (3)

Ethnic, minority, or women's literature. *One of these:*
ENG 230J Jewish-American Literature (3)
ENG 232 American Women Writers (3)
ENG 233 British Women Writers (3)
ENG 237 Gay and Lesbian Literature (3)
ENG 246 Native American Literature (3)
ENG 248 Asian American Literature (3)
ENG 254 Latino/a Literature and the Americas (3)
ENG 336 African American Writing, 1746-1877 (3)
ENG 337 African American Writing, 1878-1945 (3)
ENG 338 African American Writing, 1946-Present (3)
ENG 348 Ethnic American Literatures (3)
ENG 369 Colonial and Postcolonial Literature (3)
ENG 435 Queer Theory (3)
ENG 468 Gender and Genre (3)

Literary Genre**.** *One of these:*
ENG 231 The Short Story (3)
ENG 261 Modern Drama (3)
ENG 281 The English Novel (3)
ENG 282 American Fiction (3)
ENG 283 Modern Poetry (3)
ENG 450 Studies in Genre (3)

Optional
An elective course, offered in the English Department, may be taken for credit toward major hours but not toward any core or distribution requirements. Courses that cannot count toward major hours include ENG 108, 109, 111, 112, 113. The purpose of this elective is to allow students to take a course in another English program (e.g., literature, linguistics, technical and scientific communication), if desired.

Program Requirements: Technical and Scientific Communication
(52 semester hours)

Special Admission Requirements

Enrollment is limited to 20 new students each year. Students can apply for pre-major status in the English department, and then apply for formal acceptance to the major after they have completed (or when they are currently enrolled in) ENG 313 (on the Oxford and Middletown campuses) or ENG 215 (on the Hamilton campus). Students must apply to the major before enrolling in ENG 415. For more information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

Required English Courses (22 semester hours)
All of these:
ENG 302 Structure of Modern English (4)
ENG 313 Introduction to Technical Writing (3) **or** ENG 215 Technical Writing (H) (3)
ENG 411/511 Visual Rhetoric for Technical and Scientific Communicators (3)
ENG 412/512 Editing for Technical and Scientific Communicators (3)
ENG 413/513 Writing Reports and Proposals (3)
ENG 414/514 Designing and Testing User Documents for Technical and Scientific Communicators (3)
ENG 415 Practicum in Technical and Scientific Communication *(open to majors only)* (3)

Required Related Hours (12 semester hours)
COM 135 Public Expression and Critical Inquiry (3)
CSE 148 Business Computing (3)
JRN 201 News Writing and Reporting (3)
JRN 318 Feature Writing for Newspapers (3)

Professional Area Courses (required)

Eighteen hours of approved courses (see the major handbook or visit *www.muohio.edu/batsc*) in one of these areas:
- Computer science
- Environmental science
- Medical and health sciences

Environmental Earth Science- Bachelor of Arts

For information, contact the Department of Geology, 114 Shideler Hall (513-529-3216).

The Bachelor of Arts in Environmental Earth Science is designed for those students who are interested in Earth systems and processes, but who are also interested in applying their geoscience pursuits to environmental issues, problems and solutions. This major reflects the fact that most of our faculty are involved in environmental research and study.

Program Requirements: Bachelor of Arts
(48 semester hours minimum)

Core requirements. (14 semester hours)

One of these:
GLG 111 The Dynamic Earth (3) **or**
GLG 121 Environmental Geology (3) **or**
GLG 141 Geology of U.S. National Parks (3) **and**
GLG 115L Laboratory (1)

One of these:
ENV 274 Introduction to Environmental Principles (3)
GLG 275 Principles of Environmental Science (3)
GEO 271 Human Dimensions of Natural Resource Conservation (3)

One of these:
GLG 301 Sedimentology and Stratigraphy (4)
GLG 354 Geomorphology (3)

One of these:
GLG 307 Water and Society (3)
GLG 408 Introduction to Hydrogeology (4)
GLG 491 Geochemistry of Natural Waters (3)

Electives. (Minimum 19 semester hours):

Choose at least three of these:
GLG 201 Mineralogy (4)
GLG 204 Survival on an Evolving Planet (3)
GLG 244 Oceanography (3)
GLG 301 Sedimentology and Stratigraphy (4)
GLG 307 Water and Society (3)
GLG 335 Ice Age Earth (3)
GLG 354 Geomorphology (3)

Choose at least three of these, at lest two of which must be in GLG:
GLG 401 Global Climate Change (4)
GLG 402 Geomicrobiology (3)
GLG 408 Introduction to Hydrogeology (4)
GLG 435 Soils and Paleosols (3)
GLG 436 Paleoclimatology (3)
GLG 482 Contaminant Hydrogeology (4)
GLG 491 Geochemistry of Natural Waters (3)
GLG 494 Sustainability Perspectives in Resources and Business (3)
GLG 496 Isotopes in Environmental Processes (3)
GEO 425 Hydrogeography (3)
GEO 426 Watershed Management (3)
GEO 441 Geographic Information Systems (3)
GEO 442 Advanced Geographic Information Systems (3)
GEO 448 Techniques and Applications of Remote Sensing (3)
IES 450 Environmental Law (3)

Field experience.
Minimum of 3 semester hours of a field based course. May be fulfilled by credit workshops. Potential course must be approved by GLG CDA.

Related Hours (minimum of 12 hours required)

Choose one of these:
CHM 141, 144 College Chemistry/College Chemistry Lab (3, 2)
CHM 141 R, 144 College Chemistry/College Chemistry Lab (4, 2)
GLG 211 Chemistry of Earth Systems (3)

Choose one of these:
MTH 151 Calculus I (5)
MTH 153 Calculus I (4)
MTH 251 Calculus II (4)
STA 261 Statistics (4)
STA 301 Applied Statistics (3)

Choose one of these:
PHY 171, 183 College Physics/Physics Lab (3, 1)
PHY 181, 183 The Physical World/Physics Lab (4, 1)
GLG 261 Geohazards and the Solid Earth (3)

Choose one of these:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)
BOT 131 Plants, Humanity, and Environment (3)
BOT 171 Ecology of North America (3)
BOT 191 Plant Biology (4)
ZOO 113 Animal Diversity (4)
ZOO 121 Environmental Biology (3)
ZOO 204 Fundamentals of Ecology (3)

Environmental Principles and Practice Co-Major

This co-major emphasizes human-nature interaction in understanding environmental patterns and processes. Students are prepared to pursue a wide variety of career paths and post-graduate degrees in environmental science, especially those with management and policy specializations. The term "co-major" is unique and indicates that students must be concurrently enrolled in and must complete another major at Miami University. The co-major complements this primary major, which provides significant depth and breadth in an academic discipline. There is no specific degree designation for the co-major; students receive the degree designation of their primary major.

Program Requirements:
(38-48 semester hours)

Complete a major in one of the divisions of the university.

Biological Science (3-4 semester hours)
one of these:
BOT 131 Plants, Humanity, and Environment (3)
BOT 171 Ecology of North America (3)
ZOO 121 Environmental Biology (3)

Physical Science (3-4 semester hours)
GEO 121 Earth's Physical Environments (4)
GLG 121 Environmental Geology (3)

Social Science (10 semester hours):
These two courses:
ECO 201 Principles of Microeconomics (3)
POL 241 American Political System (4)

One of these:
ATH 175 Peoples of the World (3)
GEO 101 Global Forces, Local Diversity (3)
GEO 111 World Regional Geography: Patterns and Issues (3)

Statistics (4 semester hours)
One of these:
DSC 205 Business Statistics (4)
STA 261 Statistics (4)
Equivalent statistics course approved by Advisory Committee and adviser.

Environmental Science (15-21 semester hours):
This course:
ENV 274 Introduction to Environmental Principles (3), **and**

Four of these (maximum one from department of primary major):
AMS 397; **ARC** 312, 413, 414, 450; **ATH** 371, 426, 455, 471, 476, 497
BOT 351, 401, 431, 432, 467, 494, 496, 499A, 499N; **BUS** 494; **BWS** 495
CHM 491; **ECO** 434; **GEO** 333, 421, 424, 425, 426, 428, 431, 432, 436, 437, 494, 496
GLG 335, 401, 402, 408, 412, 413, 414, 415, 454, 491, 494, 496; **GTY** 476; **HST** 397, 495
IES 414, 431, 450, 499B; **LAS** 414; **MBI** 475; **PHL** 376; **POL** 363; **WCP** 401; **WMS** 436
ZOO 333, 351, 462, 463, 467, 494, 497

Synthesis and Integration (3 semester hours)
This one:
ENV 474 Environmental Practice (3)

This requirement:
Extramural environmental experience during summer of sophomore or junior year, such as workshop, internship, co-op, employment, or other experience. This experience must be approved in advance by the Advisory Committee and your adviser.

Environmental Science Co-Major

This co-major emphasizes earth science and life science approaches to understanding environmental patterns and processes. Students are prepared to pursue a wide variety of career paths and post-graduate degrees in environmental science, especially those with biological and physical science specializations. The term "co-major" is unique and indicates that students must be concurrently enrolled in and must complete another major at Miami University. The co-major complements this primary major, which provides significant depth and breadth in an academic discipline. There is no specific degree designation for the co-major; students receive the degree designation of their primary major.

Program Requirements:
(33-39 semester hours)

Complete a major in one of the divisions of the university.

Biological Science - one of these:
BOT/MBI/ZOO 115 Biological Concepts (4)
BOT 191 Plant Biology (4)
ZOO 113 Animal Diversity (offered at Hamilton/Middletown only) (4)

Physical Science (8 semester hours; one course from group a. and one from b.)

Group a
CHM 111 Chemistry in Modern Society (4)
CHM 142, 145 College Chemistry/College Chemistry Lab (3, 2)
GLG 211 Chemistry of Earth Systems (GLG majors only) (4)

Group b
GLG 111 The Dynamic Earth (3)
GLG 121 Environmental Geology (3)

GLG 131 Geology and Gemstones (3)
GLG 141 Geology of U.S. National Parks (3)
GLG 115L Geology Lab (required with any GLG enrollment) (1)
GEO 121 Earth's Physical Environments (4)

Note: PHY 171/172 or 181/182 strongly recommended.

Statistics (3-4 semester hours)
One of these:
STA 261 Statistics (4)
STA 301 Applied Statistics (3)
STA 368 Introduction to Statistics (4)
STA 462 Inferential Statistics (3)

Social Science (6-7 semester hours):
This course:
ECO 201 Microeconomics (3), **and**

One of these:
ATH 175 Peoples of the World (3)
GEO 101 Global Forces and Local Diversity (3)
POL 241 American Political System (4)
POL 261 Public Administration (4)

Environmental Science (9-11 semester hours):
This course:
BOT/CHM/ENV/GEO/GLG/MBI/STA/ZOO 275 Principles of Environmental Science (3), **and**

Two of these (at least one outside department of primary major):
BOT 401, 431, 432, 467
CHM 363/364, 454, 463
GEO 421, 425, 428, 431, 432, 437, 441
GLG 335, 401, 402, 408, 432, 454, 482, 491, 496
MBI 402, 475
PHY 421, 437, 441
STA 475
ZOO 333, 453, 462, 463, 467

Practicum and Synthesis (3-5 semester hours)
One of these:
BOT/ZOO 351 Environmental Education (4)
BOT/GEO/GLG/ZOO 494 Sustainability Perspectives in Resources and Business (3)
GEO 436 Women, Gender and the Environment (3)
Field-Based Workshops (See department for available workshops)
Honors Thesis (3)

IES 431 Principles and Applications of Environmental Science (3)*
Independent Study 377 (3) or Internship 340 (3)*

* must be approved by Advisory Committee and Departmental Adviser

French- Bachelor of Arts

For information, contact the Department of French and Italian, 207 Irvin Hall (513-529-7508). Students are encouraged to participate in the Department's summer programs abroad.

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

Program Requirements
(30 semester hours)

After taking FRE 301 (3), take six hours of FRE 302, 303, or 310, in no particular sequence. Of the remaining 21 hours, take 18 hours at 400 level, including the required three-hour senior seminar (FRE 410) and the required three-hour writing workshop (FRE 415). No more than three hours in translation count toward this major. FRE 361 Pronunciation does **not** count toward this major.

Geography- Bachelor of Arts

For information, contact the Department of Geography, 216 Shideler Hall (513-529-5010).

Geographers study human (social, economic, political) and environmental (atmospheric, biologic, geologic) processes that create diverse global patterns in physical and cultural landscapes. Geography especially focuses on understanding how people and societies relate with each other and their environment. Geographers are positioned to work for positive development initiatives in local communities and around the world.

Program Requirements
(36 semester hours)

Foundation Courses. Both of these:
GEO 101 Global Forces, Local Diversity (3) **or**
GEO 111 World Regional Geography (3)
GEO 121 Earth's Physical Environments (4)

Core Courses. Both of these:
GEO 211 Global Change (3)
GEO 241 Map Interpretation (3)

Recommended elective:
GEO 395 Scholarship and Practice in Geography (1)

Specialization Paths. At least 12 hours in one of these four paths:
Environmental Change Path
This one:
GEO 221 Regional Physical Environments (3) and
At least two of these:
GEO 271 Humans and Natural Resources (3)
GEO 333 Geography of Natural Hazards (3)
GEO 401 Sustainable Regions (3)
GEO 421 Climatology (3)
GEO 424 Geomorphology (4)
GEO 425 Hydrogeography (3)
GEO 426 Watershed Management (3)
GEO 428 Soil Geography (4)
GEO 431 Global Plant Diversity (3)
GEO 432 Ecoregions of North America (3)
GEO 436 Women, Gender, and the Environment (3)
GEO 437 Regional Land Use Capability Analysis (3)
GEO 441 Geographic Information Systems (3)
GEO 442 Advanced Geographic Information Systems (3)
GEO 444 GI Science in Landscape Ecology (3)
GEO 447 Aerial Photo Interpretation (4)
GEO 448 Techniques and Applications of Remote Sensing (3)
GEO 494 Sustainability Perspectives in Resources and Business (3)
GEO 496 Biodiversity in Kenya (5)
Selected GEO 460 courses with permission of adviser.

Global Development Path
At least one of these:
GEO 208 The Rise of Industrialism in East Asia (3)
GEO 301 Geography of Sub-Saharan Africa (4)
GEO 304 Latin American Development (3)
GEO 307 Geography of Central and Eastern Europe, and Russia (3)
GEO 308 Geography of East Asia (3)
GEO 311 Geography of Western Europe (4)
GEO 405 The Caribbean in Global Context (3)
Selected GEO 410 courses with permission of adviser;
and
At least two of these:
GEO 378 Political Geography (3)
GEO 401 Sustainable Regions (3)
GEO 408 Geography of the Silk Road (3)
GEO 436 Women, Gender, and the Environment (3)
GEO 437 Regional Land Use Capability Analysis (3)
GEO 441 Geographic Information Systems (3)
GEO 442 Advanced Geographic Information Systems (3)
GEO 447 Aerial Photo Interpretation (4)
GEO 448 Techniques and Applications of Remote Sensing (3)
GEO 455 Race, Urban Change, and Conflict in America (3)
GEO 457 Global Cities (3)
GEO 461 Migrants and Diasporas (3)
GEO 473 Development and Underdevelopment (3)
GEO 475 Global Periphery's Urbanization (3)
GEO 476 Global Poverty (3)
GEO 496 Biodiversity of Kenya (5)
Selected GEO 460 courses with the permission of adviser.

Comparative Urban Economic Path
This one:
GEO 201 Geography of Urban Diversity (3) and
At least two of these:
GEO 437 Regional Land Use Capability Analysis (3)
GEO 441 Geographic Information Systems (3)
GEO 442 Advanced Geographic Information Systems (3)
GEO 447 Aerial Photo Interpretation (4)
GEO 448 Techniques and Applications of Remote Sensing (3)
GEO 451 Urban and Regional Planning (3)

GEO 454 Urban Geography (3)
GEO 455 Race, Urban Change, and Conflict in America (3)
GEO 457 Global Cities (3)
GEO 458 Cities of Difference (3)
GEO 459 Advanced Urban and Regional Planning (3)
GEO 462 Public Space (3)
GEO 467 Land Use, Law, and the State (3)
GEO 473 Development and Underdevelopment (3)
GEO 475 Global Periphery's Urbanization (3)
GEO 492 Geography of the Auto Industry (3)
Selected GEO 460 courses with the permission of adviser.

Environmental and Society Path
Select courses based on a study plan created in consultation with an adviser.

Required Capstone Course
GEO 491 Senior Seminar (4)

Workshop, internship, or other fieldwork in geography is strongly encouraged and will count towards required hours (with permission of adviser).

• Additional geography courses to total 36 hours in the major, chosen in consultation with your adviser.

Geology- Bachelor of Arts, Bachelor of Science

For information, contact the Department of Geology, 114 Shideler Hall (513-529-3216).

Geology is the study of the history of the Earth and processes that continue to shape the planet today. Geoscientists view the Earth as a set of intimately connected atmospheric, hydrologic, and rock systems.

The department offers several majors: Bachelor of Arts in geology, Bachelor of Arts in earth science, Bachelor of Arts in environmental earth science, Bachelor of Arts with teacher licensure in earth science, Bachelor of Science in Geology and Bachelor of Science in Education in earth science education.

The Bachelor of Science degree is designed to provide more in-depth study, particularly in preparation for pursuit of a graduate degree in the geological sciences. As part of this preparation, students are required to conduct independent research leading to public presentation of their results.

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

Program Requirements: Bachelor of Arts

(36 semester hours minimum in GLG; 48 semester hours minimum including related courses)

Core requirements. All of these (30 semester hours):
GLG 111 The Dynamic Earth (3) **or**
GLG 121 Environmental Geology (3) **or**
GLG 141 Geology of U.S. National Parks (3)
GLG 115L Laboratory (1)
GLG 201 Mineralogy (4)
GLG 204 Survival on an Evolving Planet (3)
GLG 301 Sedimentology and Stratigraphy (4)
GLG 322 Structural Geology (4)
GLG 357 Igneous and Metamorphic Petrology (4)
GLG 411A Field Geology (6)

Electives at least one must be at the 400-level (minimum 6 semester hours):
GLG 335 Ice Age Earth (3)
GLG 354 Geomorphology (3)
GLG 401 Global Climate Change (4)
GLG 402 Geomicrobiology (3)
GLG 408 Introduction to Hydrogeology (4)
GLG 427 Isotope Geology (3)
GLG 428 Groundwater Flow Modeling (4)
GLG 432 X-ray Powder Diffraction and Clay Analysis (3)
GLG 435 Soils and Paleosols (3)
GLG 436 Paleoclimatology (3)
GLG 450 Sedimentary Basin Analysis (3)
GLG 461 Geophysics (3)
GLG 467 Seismology (3)
GLG 482 Contaminant Hydrogeology (4)
GLG 491 Geochemistry of Natural Waters (3)
GLG 492 Global Tectonics (4)
GLG 496 Isotopes in Environmental Processes (3)

Related Hours (12-16 required)
CHM 141, or CHM 141R; CHM 144 College Chemistry/College Chemistry Laboratory (3 or 4, 2)
MTH 151 Calculus I (5) **or**
MTH 153 Calculus I (4) **or**
STA 261Statistics (4) **or**
STA 301 Applied Statistics (3)
PHY 171 College Physics (3) **or**
PHY 181 The Physical World (4) **and**
PHY 183 Physics Laboratory (1)

Program Requirements: Bachelor of Science

(42 semester hours minimum in GLG; 63 semester hours minimum including related courses)

Core requirements
All courses required for the Bachelor of Arts degree in geology.

Electives
Same requirements as for the Bachelor of Arts degree in geology plus one additional 400-level course

Choose from:
GLG 401 Global Climate Change (4)
GLG 402 Geomicrobiology (3)
GLG 408 Introduction to Hydrogeology (4)
GLG 428 Groundwater Flow Modeling (4)
GLG 432 X-ray Powder Diffraction and Clay Analysis (3)
GLG 435 Soils and Palesols (3)
GLG 436 Paleoclimatology (3)
GLG 450 Sedimentary Basin Analysis (3)
GLG 461 Geophysics (3)
GLG 467 Seismology (3)
GLG 482 Contaminant Hydrogeology (4)
GLG 484 X-Ray Diffractometry (2)
GLG 491 Geochemistry of Natural Waters (3)
GLG 492 Global Tectonics (4)
GLG 496 Isotopes in Environmental Processes (3)

Research Project
GLG 477 or 498 or equivalent research project (3)
Public presentation of research project

Related Hours (12-16 required)
Same requirements as for the Bachelor of Arts degree in geology plus:
CHM 142, 145 College Chemistry/College Chemistry Lab (3, 2) **or**
GLG 211 Chemistry of Earth Systems (3)
MTH 151 Calculus I (5) **or**
MTH 153 Calculus I (4) **or**
MTH 251 Calculus II (4) **or**
STA 261 Statistics (4) **or**
STA 301 Applied Statistics (3)
PHY 182, 184 The Physical World/Physics Lab (4, 1) **or**
GLG 261 Geohazards and the Solid Earth (3)

German- Bachelor of Arts

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This program provides students with a solid foundation in language, literature, and culture. The department offers an intensive summer program in Europe for students at intermediate and advanced levels. Students are encouraged to take the internationally recognized examinations in German/business German given annually.

Only three semester hours in English translation can be applied toward the required 27 semester hours. All courses for the German major must be taken for a grade except courses only offered as credit/no-credit.

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and

restrictions pertaining to admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

Program Requirements
(27 semester hours above GER 206)

Select courses from these areas:

Language skills. At least three semester hours from these:
GER 301 Advanced German Composition and Conversation (3)
GER 303 German for Business (3)

Literature. Take both of these:
GER 311 Passionate Friendships in German Literature (3)
GER 312 Coming of Age in German Life and Thought (3)

Culture. At least three semester hours from these:
GER 321 Cultural Topics in German-Speaking Europe (3)
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the USA (3)

Advanced study:
GER 471 Linguistic Perspectives in Contemporary German (3)
Three additional courses, two must be at the 400 level, at least one must be a literature course. The remaining course, if below 400, must be from GER 251, 260, 261, 321, or 322.

Related Hours (16 required)

These may include study of other national literatures, literary theory, comparative literature, linguistics, or another language. Depending on the subject, another major or minor may satisfy this requirement. Courses in music, art, history, political science, and other disciplines qualify on the basis of their content. Related hours must be approved by your adviser.

Gerontology- Bachelor of Arts

This major provides students with a multidisciplinary approach to the study of aging in a social context. Students examine the varied experiences of physical, psychological and social aging in an aging society and world. The major draws from theoretical work in anthropology, psychology, social work/welfare, and sociology. This major prepares students for careers and further study in a broad range of fields and disciplines related to individual and societal aging.

Program Requirements
(38 semester hours)

Multidisciplinary Core. *All of these:*
GTY 154 Aging in American Society (3)
GTY/SOC 318 Sociology of Aging and the Life Course (3)
GTY 365 Social Policy and Programs in Gerontology (3)
GTY 375 Aging, Self, and Society (3)
GTY 440G Capstone Field Experience in Gerontology (MPC) (1-16, minimum 6)
SOC 262 Research Methods (4)
STA 261 Statistics (4)

Diversity. *One of these:*
GTY 260 Global Aging (3)
GTY/SOC/WMS 463 Gender and Aging (3)
GTY/BWS 472 Race, Ethnicity, and Aging (3)

Health. *One of these:*
DST/GTY 335 Disability and Aging (3)
GTY 356 Biopsychosocial Aspects of Health and Aging (3)
GTY/SOC 357 Medical Sociology (3)
GTY 478 Racial/Ethnic Disparities in Chronic Illness (4)

Socio-cultural Contexts. *One of these:*
GTY/FSW 466 The Family in Later Life (3)
GTY/ATH 476 Environment and Aging (3)
GTY 485 Long-Term Care in an Aging Society (3)
SOC 257 Population (3)
SOC 435 Sociology of Death (3)

Note: Students can count a course from a second major or other area of interest as an elective for the gerontology major. Some examples are:
KNH 471 Sport, Leisure, and Aging (3)
PHL 375 Moral Issues in Health Care (4)
PHL 475 Justice in Health Care (3)

Note: Gerontology majors are required to take at least one 400 level gerontology course in addition to GTY 440G. The department occasionally offers GTY 460 (Selected Topics in Gerontology) which can be included in one of the thematic clusters based on the specific topic.

History- Bachelor of Arts

For information, contact the Department of History, 254 Upham Hall (513-529-5121).

The history major provides a specialized undergraduate program that strengthens a student's ability to read critically; analyze physical and written evidence; and develop clear, coherent arguments. These skills allow the student to engage the past with careful and imaginative questions. As students engage in the discipline of historical inquiry, they will become adept at developing written conclusions and oral presentations based on the systematic evaluation of historical evidence. Students will grow used to considering an array of cultures, familiar and unfamiliar, in diverse historical contexts.

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

Program Requirements
(36 semester hours)

Introduction to History
At least three of these nine (one must be HST 121 or HST 197). You are not required to take these in sequence:
HST 111, 112 Survey of American History (3, 3)
HST 121, 122 Western Civilization (3, 3)
HST 197, 198 World History (3, 3)

If you scored 3 or above on an Advanced Placement examination, you may apply it to the major, as described below.
U.S. History (HST 111 and 112, 6 credits)
European History (HST 122, 3 credits)
World History (HST 198, 3 credits)

Introduction to Historical Inquiry
This one:
HST 206 Introduction to Historical Inquiry (3)

Upper-level Courses (at least 21 hours)
Any History courses numbered 200 or above (excludes HST 206, Introduction to Historical Inquiry). At least 15 hours must be at the 300 or 400 level. A single course may fulfill more than one of the following categories.

a. Geographical Diversity Requirement (3 hours). One upper-level course must be on the history of Africa, the Middle East, Asia, Latin America, or some combination of those regions.

b. Pre-modern Period Requirement (3 hours). One upper-level course must be on the pre-modern period. This generally refers to the period before 1800.

c. One course (3 hours) must be at the 400-level. Excludes HST 400, Senior Capstone.

HST 400 Senior Capstone (3). You must take HST 400, which also fulfills the Capstone Course requirement in the Miami Plan.

Department Honors Option
History majors with a record of high achievement have the opportunity to participate in the Honors Program in History. Eligible students will receive invitations to the program no later than the first semester of their junior year. Participation in the program is by invitation only and is based in part on the number of history courses taken to that point and the grade point average in those courses.

Students accepted into the Honors Program in History must complete the following, unless alternative arrangements are made in advance with the department honors director.

HST 359 Junior Honors Colloquium (3)
Ordinarily taken in the second semester of the junior year. Counts toward upper-level courses for the History major.

HST 400 Honors Senior Capstone (3)
Ordinarily taken in the first semester of the senior year. Fulfills the departmental and Miami Plan capstone requirement.

HST 480 Departmental Honors (1-3)

An independent study course ordinarily taken in the second semester of the senior year with the senior thesis adviser. Counts toward upper-level courses for the History major, but not for the required 400-level course.

Individualized Studies- Bachelor of Arts

For information, contact the Western Department 513-529-2233.

The AB in Individualized Studies offers students with multiple interests the opportunity to individualize their course of study by integrating them within an explicitly interdisciplinary framework. An inquiry-based set of courses that emphasize understanding and applying diverse theories and methodologies will enable students to gain proficiency in developing their own projects. The individualized portion of the major, designed by students in close consultation with faculty and staff advisors, will draw from courses across the university. A culminating project of the student's own design showcases her or his growth and learning.

Program requirements

Introductory courses: (7 hours)
WST 201 Self and Place (3)
WST 231 Interdisciplinary Inquiry (3)
WST 251 Individualized Studies Seminar (1)

Core courses in interdisciplinary and integrative studies: (12 hours)
WST 301 Interdisciplinary Problems and Questions (3)
WST 321 Developing Interdisciplinary Projects I: Exploring Ways of Knowing (3)
WST 322 Developing Interdisciplinary Projects II: Using Analytical and Rhetorical Tools (3)
WST 341 Interdisciplinary Synthesis and Action (3)

Individualized coursework component: (24 hours minimum)

Building on the individualized plan created in WST 251, students will select and complete coursework at the 300-level or above from around the university to build content knowledge in specific area(s) of focus. Students might choose to pattern their individualized plan on an existing multidisciplinary Thematic Sequence or an interdisciplinary minor within the university, but will be expected to go well beyond what is already in place at Miami to flesh out their unique areas of study. The integrative individualized component will form an important knowledge base for constructing their senior projects. Their plans may include one or more semesters of study abroad and/or credit-bearing internships as appropriate. A WST faculty committee must approve students' individualized plans, submitted as a written document by no later than the end of their third semester in the major.

Senior Project: (7 hours)
WST 421 Senior Project Proposal Workshop (2)
WST 444 Senior Workshop and Project (3)
WST 445 Senior Workshop and Project (2)

Interactive Media Studies Co-Major

This co-major in Interactive Media Studies is an interdisciplinary major that is designed to complement the traditional disciplinary-focused major. It cannot be taken independently of a disciplinary focus. The co-major includes courses that span across the breadth of Miami University's offerings. From art to the humanities to computer science, the IMS co-major brings the inherently interdisciplinary world of technology to the traditionally disciplinary student.

There are four concentrations within the co-major that allow students to focus their experience on a particular area of interactive media and to better complement their disciplinary area of focus. These concentrations include: 1) Digital Art and Design; 2) Digital Game Studies; 3) Digital Humanities and Social Science; and 4) Self-Designed (adviser approval required).

An application and "portfolio" are required for admittance. There is a minimum 2.50 g.p.a. requirement. A limited number of students are admitted each year.

Admission Guidelines

Students will be admitted to the co-major upon successful completion of all admission requirements:

- Application made in March of the first-year or October of the second year.
- a 2.50 Miami g.p.a.
- Application with portfolio of related work (art, writing, code, etc.)
- Interview of selected students

Program Requirements

(36 semester hours)

Take all of the following:
IMS 101 Interactive Development Skills (1)
IMS101F Web Animation (1)
IMS 101G Presentation Graphics and Multimedia (1)
IMS 101H Web Design and HTML (1)
IMS 101P Desktop Publishing (1)
IMS 101V Video (1)

Take one of the following:
ENG 171 Humanities and Technology (MPF) (3)
ENG 313 Introduction to Technical Writing (3)
IMS 201 Information Studies in the Digital Age (MPT) (3)
IMS 333 New Economy: eBusiness, Entrepreneurship, and Venture Capital (MPT) (3)

Select a concentration (18 hours total):

Digital Art and Design
ART 256 Design, Perception, and Audience (MPF) (3)
IMS/ART 259 Aesthetics and Computation (3)
IMS 310 Usability and Digital Media Design (4)
IMS 319 Foundations in 3-D Design (3)
IMS 333 New Economy: eBusiness, Entrepreneurship, and Venture Capital (MPT) (3)
IMS 356 Flash Animation (3)
IMS/ART 359 Interactive Programming with ActionScript (3)
IMS 390 Special Topics (3)*
IMS/ARC 404Y Mind and Medium (3)
MUS 303 Electronic Music (MPT) (3)
PSY 462 Work Space and Work Organization (MPT) (3)

Digital Game Studies
ART/IMS 259 Aesthethics and Computation (3)
ART/IMS 359 ActionScripting for Artists (3)
CSE 251 Introduction to Game Programming (3)**
CSE 386 Introduction to Computer Graphics (3)
ENG/IMS 238 Narrative and Digital Technology (3)
IMS 319 Foundations in 3-D and Animation (3)
IMS 390 Special Topics (3)*
IMS 445 Game Design (3)

Digital Humanities and Social Science
COM 211 Introduction to Electronic Media (4)
ENG 411/511 Visual Rhetoric (3)
ENG 414/514 Designing and Testing User Documents (3)
IMS/ENG 238 Narrative and Digital Technology (3)
IMS/JRN 303 Online Journalism (3)
IMS 356 Flash Animation (3)
IMS 390 Special Topics (3)*
MUS 303 Electronic Music (MPT) (3)
PSY 462 Work Space and Work Organization (MPT) (3)

Self-Designed Concentration
Pick 18 hours from any of the above concentrations. Adviser approval required prior to beginning concentration.

* Topic appropriate for focus, adviser approval required

** Not open to CSE majors

Internship
IMS/ART 340 Internship (1-3 hours, maximum 6)

Practicum
IMS 440/410 Interactive Media Studies Practicum (MPC) (4)

Independent Study
IMS 477 Interactive Media Studies Independent Study/Independent Project (3)

International Studies- Bachelor of Arts in International Studies

For information, contact the director of the International Studies Program, 120 MacMillan Hall (513-529-5333).

This multidisciplinary program is for students desiring a broad foundation for understanding and analyzing important issues within an international and multicultural context. Its flexible curriculum provides a basis for graduate work or careers in government service, international business, academia, tourism, public service, cultural relations, and law. **Overseas study is required** as a part of this major.

Program Requirements

Interdisciplinary Core Courses (21-22 semester hours)

All of these:
ECO 344 International Economics (3) *
ITS 201 Introduction to International Studies (3)
ITS 402 Policy Taskforce Capstone in International Studies (3) **

* ECO 201 and 202 are prerequisites

** Senior year only

One of these:
ITS 302 Problems of Non-Western Societies (3)
ITS 365 Topics in International Studies (3)

Three of these:
GEO 378 World Political Geography (3)
HST 198 World History 1500 to present (3)
ITS/ATH 301 Intercultural Relations (3)
POL 271 World Politics (4)

Language Requirement (6-12 semester hours)
For French, German, or Spanish: 12 hours at 300 level or above, or a minor (other languages must complete only 6 hours at 300 level or above).

Approved Study Abroad Experience (at least one semester)

Concentration Requirement (12 semester hours)
Choose between the functional concentration and the regional concentration. You must take at least 12 credit hours from at least three different disciplines in your chosen concentration.

Functional Concentrations: Regional Concentrations:
- Conflict, Peace and Diplomacy*
- International Development
- Global Cultural Relations
- The Global Environment
- Women in the World
- Africa
- South and East Asia
- Latin America
- Middle East
- Russia Eastern Europe and Central Asia
- Western Europe

* Take 12 hours from at least two different disciplines

Italian Studies- Bachelor of Arts

For more information, contact the Department of French and Italian, 207 Irvin (513-529-7508).

Prerequisite Preparatory Course
(8 semester hours)

ITL 101,102 Beginners Italian (4, 4)* **or**
ITL 105W Intensive Elementary Italian (eight weeks) (8) ** or equivalent

Generally, two years of language study in high school are the equivalent of one year in college. It is not necessary to complete the first-year courses before embarking on the major. They may be take concurrently with major courses, but ideally should be completed during the student's first two years

*taken at Miami University
**offered at the Miami University Summer Language Institute in Italy

Program Requirements: 30 credit hours

Required Course
(3 semester hours)
ITL 221 Italy, Matrix of Civilization (3)

Core Courses
(18-27 semester hours)
Choose at least six courses from the following (fewer if choosing ITL 205W or 305W, which are 8 hours each), for a minimum of 18 hours, up to as many as nine three credit courses, for a maximum of 27 semester hours.
ART 481 Italian Renaissance (3)
ART 484 High Renaissance and Mannerist Art (3)
CLS 102 Roman Civilization (3)
CLS 402 The Age of Augustus (3)
HST 315 The Renaissance (3)
HST 328 Italy: Machiavelli to Mussolini
HST 452 Florence in the Time of the Republic 1250-1550 (3)
ITL 201,202 Second-year Italian (3, 3) **or**
ITL 205W Intensive Intermediate Italian (8) **
ITL/AMS/FST 222 Italian American Culture (3)
ITL/FST 262 Italian Cinema (in English) (3)
ITL 301 Introduction to Italian Literature 13th-19th Centuries (in Italian) (3)
ITL 302 Introduction to Italian Literature 20th-21st Centuries (in Italian) (3)
ITL 305W Intensive Advanced Italian (8) **
ITL/ENG 364 From Marco Polo to Machiavelli (3)
ITL/ENG 401 Dante's *Divine Comedy* (in English)
ITL 410 Topics in Italian (3)
MUS 462 Opera and Drama (3)

** offered at the Miami University Summer Language Institute in Italy

Supplementary Courses
(up to 9 semester hours)
Choose remaining hours, if any, from the following:
ARC 405E Renaissance Architecture (3)
ART 315 Baroque Art (3)
ART 381 Greek and Roman Architecture (3)
ART 382 Greek and Roman Sculpture (3)
ART 383 Greek and Roman Painting (3)
CLS 210 Topics in Classics (when related to Roman culture) (1-3)
CLS 215 Roman Historians (3)
CLS 310 Advanced Topics in Classics (when related to Roman culture) (1-3)
HST 448 The Roman Republic (3)
HST 449 The Roman Empire (3)

Concentration in Italian Language and Literature

A notation will be added to the transcripts of students completing at least 18 credits in courses with an ITL designation, indicating that they have fulfilled the requirements for the Italian Studies Major with a Concentration in Italian Language and Literature. This concentration requires at least two years of Italian at the university level. ITL 301 and 302 are strongly recommended, as is participation in the Miami University Summer Language Institute in Urbino, Italy.

Required Courses
(6 or 8 semester hours)*
ITL 201,202 Second-year Italian (3, 3) **or**
ITL 205W Intensive Intermediate Italian (8) ** or equivalent

Strongly Recommended
(3-14 semester hours)
ITL 301 Introduction to Italian Literature 13th-19th Centuries (in Italian) (3)
ITL 302 Introduction to Italian Literature 20th-21st Centuries (in Italian) (3)
ITL 305W Intensive Advanced Italian (8) **
ITL 410 Topics in Italian (3)

Choose remaining hours, if any, from the following:
ITL/AMS/FST 222 Italian American Culture (3)
ITL/FST 262 Italian Cinema (in English) (3)
ITL/ENG 364 From Marco Polo to Machiavelli (3)
ITL/ENG 401 Dante's *Divine Comedy* (in English)

* eight semester hours if ITL 205W is chosen
** offered at the Miami University Summer Language Institute in Italy

Journalism- Bachelor of Arts

For information, contact the director of the Journalism Program, 260 Bachelor Hall (513-529-7525).

This program provides students with a liberal arts approach to integrated journalism (print, broadcast, and web) focusing on proficiency in critical thinking, writing, reporting, and editing. These skills prepare students for careers in print and broadcast journalism, new media, related professions, and graduate studies. The program further emphasizes the importance of acting as ethical and productive members of the media and the community at large.

Program Requirements
(38 semester hours)

Admission to the journalism major is selective and students must eventually choose and complete a second major. Students enter the program as pre-journalism majors and may apply for admission to the major after completing the following:

Pre-Major Courses
COM 143 Introduction to Mass Communication (3)
JRN 101 Introduction to Journalism (3)

In addition, students must:
• Complete at least 18 hours in Miami Plan Foundation courses.
• Pass a grammar and punctuation proficiency test.

After completing COM 143, JRN 101, and the 18 MPF hours, students are eligible to apply for admission to the major and take the proficiency test. The student's g.p.a. performance in the pre-major and Miami Plan courses, and score on the proficiency test will be considered part of the admission criteria. See the journalism program director for details on applying for admission.

Major Degree Requirements

These two:
COM 143 Introduction to Mass Communication (3)
JRN 101 Introduction to Journalism (3)

Core Requirements

All of these:
COM 211 Introduction to Electronic Media Production (4)
IMS 201 Information Studies in the Digital Age (3)
JRN 201 News Reporting and Writing (3)*
(*Prerequisite for all JRN writing/editing courses)
JRN 202 News Reporting and Writing II (3)
JRN 312 Public Affairs Reporting (3)
JRN 318 Advanced Storytelling in Journalism (3)

Analytical Courses
Any two of these:
COM 354 Media and Society (3)
COM 355 Media Technology (3)
COM 446 International Media (3)
JRN 301 Journalism Law and Ethics (3)
JRN 333 International Journalism (3)
JRN 427 Inside Washington Semester Experience (4)
POL 356 Mass Media and Politics (3)

Creative Courses
Any two of these:
JRN 303 Online Journalism (3)
JRN/COM 313 Advanced Electronic Journalism: Audio (3)
JRN/COM 314 Advanced Electronic Journalism: Video (3)
JRN 316 Introduction to News Presentation (3)
JRN 418 Critical Writing in Journalism (3)
JRN 454 The Washington Community (3 to 4)

One of these:
COM/JRN 415 Practicum in Television Journalism (4)
COM/JRN/POL 426 Inside Washington (8)
JRN 421 Capstone in Journalism (3)

Internship (not required, but *strongly* encouraged for all majors)
JRN 340 Journalism Internship

Second Major

All journalism majors are required to complete a second major that is not in a media-related field. Examples of *excluded* majors include: technical and scientific communication (in English Dept.); mass communication; and strategic communication.

Latin American, Latino/a & Caribbean Studies - Bachelor of Arts

For information, contact the LAS Program, 120 MacMillan Hall (513-529-4049 or 513-529-5333).

Latin American Latino/a & Caribbean Studies (LAS) offer an interdisciplinary major and minor based in mutually enriching perspectives in the humanities, fine arts, social and physical sciences. Courses examine and analyze Latin American and Caribbean cultures, economies, social and political systems, literature, art, music, history, and geography across the hemisphere. Opportunities to study abroad and to engage with Latin American communities in Ohio promote the active application of international knowledge to issues vital to today's changing world.

Program Requirements
(30 semester hours)
Three semester hours in each of the following two required categories. Additional credits here are counted toward the core courses requirement.

Introduction to Latin America
LAS 208 Introduction to Latin America (3)
SPN 362 Spanish American Cultural History (3)

Integrative Culmination of Latin American Studies
LAS 410 Current Latin American Issues (3)
LAS/IES 414 Latin American Environmental Affairs (3)
LAS 415 Cuba in Revolution (4)
LAS/POL 478 Media and Politics in Latin America and the Caribbean (3)
LAS 477 Independent Study Project (3-4)*
LAS 499 Study Abroad in Latin America and the Caribbean (3-6)

Core Courses
At least 18 semester hours from three different rubrics:
ATH 305 Peoples and Cultures of Latin America (3)
ATH 313 Introduction to South American Archaeology (4)
ATH/LAS 325 Identity, Race, Gender, Class (3)
ATH 414 Caribbean Archaeology (3)
ATH 415 Caribbean Archaeology: Field and Laboratory Methods (6)
ATH 416 Archaeological Site Analysis (in Latin America) (3)
GEO 304 Latin American Development (3)
GEO 405 The Caribbean in Global Context (3)
GEO 473 Development and Underdevelopment
HST 307 Latin American Civilization (Before 1820) (3)
HST/LAS 437 Latin America Environmental History (3)
HST 487 Mexico Since 1810 (3)
LAS 207 Latin America before 1910 (3)
LAS/ENG 254 Latino/a Literature and the Americas (3)
LAS/HST 260 Latin America in the United States (3)
LAS 277,377,477 Independent Study*
LAS 277X Service Learning (1 credit, taken with any MPF course) **
LAS 300 Special Topics in Latin American Studies (3)
LAS 315 Latin American Diaspora Communities and Issues (3)
LAS/HST 319 Revolution in Latin America (3)
LAS 390 Variable Content Seminar in Latin American, Latino/a and Caribbean Studies (3)
LAS 412 Tropical Ecosystems of Costa Rica (5)
LAS 413 Tropical Marine Ecology (5)
LAS 417/517 Coral Reef Ecology (5)
LAS/HST 437 Latin American Environmental History (3)
POL 337 Politics of Latin America (4)
POL 378 Latin America: The Region and the World (3)
POL 430E Seminar on Comparative Political Systems: Latin America (4)
POR 383 Luso-Brazilian Women Writers in Translation (3)
SPN 315 Introduction to Hispanic Literature (3)
SPN 361 Spanish American Cultural History I (3)
SPN 430 Selected Topics in Literature and Culture: Spanish America (3)
SPN 450 Topics in Hispanic Literature and Language (3)
SPN 461 Studies in Spanish American Narrative (3)
SPN 462 Studies in Modern Spanish American Drama (3)
SPN 463 Studies in Spanish American Poetry (3)
SPN 464 Studies in Spanish American Essay (3)
SPN 482 Spanish Dialectology (3)
SPN 490 Issues in Hispanic Literature (3)
(Latin American topic required)

Related Courses (up to three semester hours)
ATH 175 Peoples of the World (3)
ATH 185 Cultural Diversity in the U.S. (3)
ATH/ITS 301 Intercultural Relations (3)
ATH 312 Introduction to North American Archaeology (4)
BLS 464 International Business Law (3)
BUS 371 International Business (3)
BUS 373 International Business in Focus (3)
COM 446 Global Media (3)
ECO 342 Comparative Economic Systems (3)
ECO 344 International Economic Relations (3)
ECO 347 Economic Development (3)
ECO 441 International Trade and Commercial Policy (3)
ECO 442 International Monetary Relations (3)
EDL 204 Sociocultural Studies in Education (3)
ENG 348 Ethnic American Literature (3)
FIN 417 International Business Finance (3)
FSW 206 Social Welfare: Impact on Diverse Groups (4)
FSW 381 Parent-Child Relations in Diverse Families (3)
GEO 101 Global Forces, Local Diversity (3)
GEO 111 World Regional Geography (3)
GEO 378 Political Geography (4)
GEO 475 Global Periphery's Urbanization (3)
HST 361 History of Colonial America (3)
HST 371 Native American History (3)
ITS 201 Introduction to International Studies (3)
ITS 301 Intercultural Relations (3)
MGT 304 Cross-Cultural Management (3)
MUS 185 World Music (3)

POL 270 Current World Problems (variable, maximum of six hours)
POL 271 World Politics (4)
POL 326 Comparative Ethnic Politics (3)
POL 381 Global Governance (3)
POL 382 International Law (3)
POL 386 Global Competition (3)
POL 439 North American Politics: Unity and Diversity (3)
SOC 348 Race and Ethnic Relations (3)
SOC 371 Social Stratification (3)
SOC 410C Immigration, Inequality & Injustice

Language Requirement (complete 1 of the 2 options:

Option 1:
FRE 301 Introduction to French Literature and Culture
POR 311 Composition and Conversational Portuguese (3)
SPN 311 Grammar Review and Introductory Composition (3)

Option 2:
Complete SPN 202, POR 211, FRE 202, or their equivalents, and take three credit hours of a second language selected from SPN, POR, or FRE.

* **Independent Study:** Students who have completed at least three credits of LAS program requirements or core courses may design an Independent Study in LAS, working with a member of the LAS Faculty Advisory Committee.
** **Service Learning:** Students are encouraged to participate in service learning for 1-3 credits, or as non-credit volunteer work, in Ohio or abroad.

Study Abroad
The LAS Program highly values study abroad in all Latin American contexts and will extend credit by petition to international study experiences that fulfill program criteria

New courses
New courses, one-time only courses, sections of variable content courses, and other that relate to Latin America may be recognized by petition for credit toward appropriate categories.

Linguistics- Bachelor of Arts

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

Program Requirements
(41-44 semester hours)

Core Courses (17 semester hours)

Take all of these:
ENG 202 Varieties of English: Dialect Diversity and Language (3)
ENG 301 History of the English Language (4)
ENG/SPN 303 Introduction to Linguistics (4) **or**
GER 309 Introduction to Linguistics (4) **or**
ATH 303 Introduction to Linguistics (4)

Take this course:
ENG 201 Language Awareness (3)

ENG 201 is offered frequently, with each offering focusing on a different topic. Students are required to take ENG 201 once as a Core requirement; they may elect to take it up to two more times as a Related I requirement.

Take one of these:
ENG 405 Advanced Linguistics (3)*
ENG 406 Discourse Analysis: Speech Acts in Context (3)*
* Capstone course

Related Courses I (9 semester hours)

No more than two courses may be taken from one department.
CIT 154 Personal Computer Concepts and Applications (3)
CSE 151 Computers, Computer Science, and Society (3)
CSE 174 Structured Programming and Computer Algorithms (3)
CSE 274 Data Structures (3)
CSE 283 Data Communication and Networks (3)
CSE 473 Automata, Formal Languages, and Computability (3)
CSE 474 Language, Interface, and Their Processors (3)
CSE 486 Introduction to Artificial Intelligence (3)
ENG 201 Language Awareness (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)
ENG 302 Structure of Modern English (4)
ENG 313 Introduction to Technical Writing (3)
ENG 327 Medieval Literature (3)
ENG 410 Topics in Linguistics (3)
FRE 341 Conversation and Current Events in France (3)
FRE 361 French Pronunciation (3)
GER 331 German Grammar (3)
GER 471 Applied German Linguistics (3)
PSY 374 Psychology of Language and Thought (3)
SPA 223 Language Development (3)
SPA 248 American Sign Language (3)
SPA 334 Phonetics (3)
SPN 311 Grammar Review and Composition (3)
SPN 312 Introduction to Spanish Linguistics (3)
SPN 408, 409 Intermediate Spanish Composition (3, 3)
SPN 481 Spanish Phonology and Syntax (3)
SPN 482 Spanish Dialectology (3)
SPN 483 History of the Spanish Language (3)

Related Courses II (9 semester hours)

Group 1

ATH 425 Ethnographic Field Methods (3)
COM 333 Introduction to Communication Research (3)
SOC 262 Research Methods (4)
SOC 362 Applied Sociological Research (3)

Group 2
ATH 265 Language and Culture (3)
COM 335 Rhetorical Theory in Western Thought (3)
COM 434 Non-Verbal Communication (3)
EDT 333 Teaching Foreign Language K-12, I (3)
EDT 334 Teaching Foreign Language K-12, II (3)
MTH 483 Introduction to Formal Systems and Mathematical Logic (3)
PHL 273 Formal Logic (4)
PHL 373 Symbolic Logic (4)
PSY 271 Cognitive Psychology (3)
PSY 372 Learning and Cognition (4)
PSY 470 Seminar in Cognition (3)

Concentration in Foreign Language Linguistics (9 semester hours)

Students must take additional elective credit hours or a Concentration in Foreign Language Linguistics. Take nine semester hours in a single foreign language at the 300 level or above.
Electives (6 Semester hours)
Take six semester, selected from Related I and II.

Note: Foreign language courses taken to fulfill the Related requirements may not count toward the foreign language concentration.

Mass Communication- Bachelor of Arts

For information, contact the mass communication area of the Department of Communication, 120 Williams Hall (513-529-3521).

Mass communication is a field of inquiry that examines the processes, institutions, and effects of the media as they function in national and international contexts. The general goals of this curriculum are threefold: 1. to develop students' competence in the critique of communication practices, 2. to increase students' appreciation of the history of media communication, and 3. to understand its impact on policies, institutions, and culture. Students study a broad range of media issues, including critical and cultural studies, communication technology and policy analysis, international communication, gender and sexuality issues, ethnic and minority studies, and more. In addition, students experience how to put this knowledge into practice in various forms of media production.

Special Admission Requirements

Enter the program as a pre-communication major and take these three courses:

COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Students may apply for admission to the major (which is selective) after taking the three pre-major courses and completing 30 hours. Admission is based on cumulative g.p.a. and pre-major g.p.a. Requirements are subject to change, so check the department website for current information.

Major Degree Requirements
(49 semester hours)

Program Contexts
This major has three context or focus areas: Media Production, Media Criticism, and Media Institutions. You must have written approval from your adviser for your specific context area.

Program Requirements: Media Production
The objective of this context is to impart a broad understanding of the production of media. This involves understanding the basic principles underlying the use of symbolic codes, including areas such as composition, editing, lighting, and sound recording and

processing. Areas to be covered include visual and aural aesthetics, writing, scripting, and planning; executing and evaluating; critical textual analysis; genre and style; and ethical use of the media.

Pre-Major Courses
All of these:
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Mass Communication Theory and Contexts
These two:
COM 146 Media Aesthetics (3)
COM 211 Introduction to Media Production (4)

Two of these:
COM 205 American Film as Communication (3)
COM 206 Diversity and Culture in American Film (3)
COM 215 Electronic Media History (3)
COM 354 Media and Society (3)
COM 355 Media Technology (3)
COM 445 Seminar in Mass Communication Law (3)
COM 447 Mass Media Criticism (3)
COM 450 Topics in Communication (with adviser approval) (3)

Research and Reasoning
One of these:
COM 353 Audience Analysis (3)
COM 354 Media and Society (3)
COM 414 Senior Project (with adviser approval) (4)
COM 447 Mass Media Criticism (3)

Culture and Diversity
One of these:
COM 206 Diversity and Culture in American Film (3)
COM 247 Rhetoric of Disability Rights (3)
COM 281 Mediated Sexualities (3)
COM 282 Sexuality and Film (3)
COM 436 Intercultural Communication (3)
COM 441 Rhetoric of Religion (3)
COM 446 International Mass Communication (3)
COM 450 Topics in Communication (with adviser approval) (3)
COM 461 Gender and the Media (3)

Media Production Context Specialization
Three of these:
COM 257 Writing for Electronic Media: Scriptwriting (3)
COM 258 Writing for Electronic Media: Copywriting (3)
COM 267 Practicum in Media Production (3)
COM 311 Television Production and Direction: Field Production (3)
COM 312 Television Production and Direction: Studio Production (3)
COM 314 Advanced Electronic Journalism (3)
COM 411/IMS 440 Interactive Media Studies Practicum (4)
COM 414 Senior Project (with adviser approval) (4)
COM 415 Practicum in Television Journalism: Video (3)
COM 421 Screenwriting Workshop (3)
COM 450 Topics in Communication (3) (with adviser approval)
COM 467 Practicum in Media Production (4)
JRN 202 News Writing and Reporting for Electronic Media (3)

Elective
Take one additional COM course (3)

Note: You may count a course in one category only.

Related Hours
Select nine hours from these:
ART 257 Photography (3)
ART 357 Photography II (3)
ART 358 Photography III (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)
ENG 320 Intermediate Creative Writing: Fiction (3, maximum 6)
FST 201 Introduction to Film Criticism and History (3)
FST 220 Literature and Film (3)
FST 221 Shakespeare and Film (3)
FST 235 Classics of Film (3)
FST 236 Alternative Traditions in Film (3)
FST 250 History and Popular Culture (3)
FST 252 Representation of History in Film and Video (3)
FST 261 A Survey of German Cinema (3)
FST 262 Italian Cinema (3)
FST 263 Soviet Cinema (3)
FST 264 Chinese Cinema and Culture (3)
FST 350 Topics in Film (3)
FST 366 French Cinema in Translation (3)
FST 401 Seminar in Film Study (3)
FST 415 Cuba in Revolution: Its History, Politics, and Culture (4)
FST 460 Topics in French Cinema (3)
HST 252 Representation of History in Film and Video (3)
IMS 201 Information Studies in the Digital Age (3)
IMS 410 Digital Development Methods: Theory and Practice (4)
JRN 101 Introduction to Journalism (3)
JRN 202 News Writing and Reporting for Electronic Media (3)
MUS 303 Electronic Music (3)
PHL 241 Aesthetics (4)
PHL 470 Advanced Aesthetics (4)
THE 200 Production and Performance Practicum (1, maximum 8)
THE 202 Stagecraft (3)
THE 204 Stagecraft Lab (1)
THE 252 Technical Production (3)
THE 253 Costume Fundamentals (3)
THE 254 Lighting Fundamentals (3)
THE 314 Playwriting (4)

Program Requirements: Media Criticism

Courses in this area are designed to give the student an understanding of how and why the mass media operate and function as they do. In this program, students develop competence in criticizing communication practices; understanding media history, aesthetics, and the social, economic, political and cultural aspects of production. Issues covered include: critical methods, genres, audiences, effects, and screenwriting. This theoretical, methodological, and historical course work may be applied to all areas of media practice. This focus may suit students who desire to go on to advanced work in media studies or to prepare for graduate work in any number of fields.

Pre-Major Courses
All of these:
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Mass Communication Theory and Contexts
These two:
COM 146 Media Aesthetics (3)
COM 211 Introduction to Media Production (4)

Two of these:
COM 205 American Film as Communication (3)
COM 206 Diversity and Culture in American Film (3)
COM 215 Electronic Media History (3)
COM 354 Media and Society (3)
COM 450 Topics in Communication (with adviser approval) (3)

Research and Reasoning
One of these:
COM 353 Audience Analysis (3)
COM 354 Media and Society (3)
COM 414 Senior Project (with adviser approval) (4)
COM 447 Mass Media Criticism (3)

Culture and Diversity
One of these:
COM 206 Diversity and Culture in American Film (3)
COM 247 Rhetoric of Disability Rights (3)
COM 281 Mediated Sexualities (3)
COM 282 Sexuality and Film (3)
COM 436 Intercultural Communication (3)
COM 441 Rhetoric of Religion (3)
COM 446 International Mass Communication (3)
COM 450 Topics in Communication (with adviser approval) (3)
COM 461 Gender and the Media (3)

Media Criticism Context Specialization
Three of these:
COM 206 Diversity and Culture in American Film (3)
COM 257 Writing for Electronic Media: Scriptwriting (3)
COM 259 Introduction to Strategic Communication and Public Relations (3)
COM 281 Mediated Sexualities (3)
COM 282 Sexuality and Film (3)
COM 353 Audience Analysis (3)
COM 355 Media Technology (3)
COM 414 Senior Project (4) (with adviser approval)
COM 421 Creative Writing: Screenwriting (3)
COM 446 International Mass Communication (3)
COM 447 Mass Media Criticism (3)
COM 450 Topics in Communication (with adviser approval)
COM 461 Gender and the Media (3)

Elective
Take one additional COM course (3)

Note: You may count a course in one category only.

Related Hours
Select nine hours from these:
AMS 206 Approaches to American Culture (3)
ART 282 Art and Politics: The Body in Art (3)
EDL 334 Youth Subcultures: Popular Culture and the Non-Formal Education (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)
ENG 298 Introduction to Literary and Cultural Studies (3)
ENG 320 Intermediate Creative Writing: Fiction (3, maximum 6)
ENG 370 Introduction to Literary and Cultural Theory (3, maximum 6)
ENG 420 Advanced Creative Writing: Fiction Workshop (3, maximum 6)
FST 201 Introduction to Film Criticism and History (3)
FST 220 Literature and Film (3)

FST 221 Shakespeare and Film (3)
FST 235 Classics of Film (3)
FST 236 Alternative Traditions in Film (3)
FST 250 History and Popular Culture (3)
FST 252 Representation of History in Film and Video (3)
FST 261 A Survey of German Cinema (3)
FST 262 Italian Cinema (3)
FST 263 Soviet Cinema (3)
FST 264 Chinese Cinema and Culture (3)
FST 350 Topics in Film (3)
FST 366 French Cinema in Translation (3)
FST 401 Seminar in Film Study (3)
FST 415 Cuba in Revolution: Its History, Politics, and Culture (4)
FST 460 Topics in French Cinema (3)
HST 250 History and Popular Culture (3)
HST 251 Gender and Third World Film (3)
HST 252 Representation of History in Film and Video (3)
IMS 201 Information Studies in the Digital Age (3)
JRN 101 Introduction to Journalism (3)
JRN 202 News Writing and Reporting for Electronic Media (3)
PHL 241 Aesthetics (4)
PHL 331 Political Philosophy (4)
PHL 470 Advanced Aesthetics (4)
POL 303 Modern Political Philosophy (4)
POL 346 Global Gender Politics (3)
POL 356 Mass Media and Politics (3)
SOC 272 Women and Popular Culture (4)
THE 314 Playwriting (4)
THE 391 Modern American Theatre (3)
THE 392 Modern European Theatre (3)
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3)

Program Requirements: Media Institutions

Within this focus, students should gain knowledge of the significance of overall patterns of media ownership and control within the context of an awareness of other important sources of power and influence within the media. In this program, students develop expertise in the determinants of national and international media practice: ownership and control; media institutions; the state, law and policy; self-regulation by the media; economic determinants; audience construction and use; media personnel; organization of production practices; and technology.

Pre-Major Courses
All of these:
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Mass Communication Theory and Contexts
These three:
COM 146 Media Aesthetics (3)
COM 211 Introduction to Media Production (4)
COM 215 Electronic Media History (3)

One of these:
COM 301 Journalism Law and Ethics (3)
COM 339 Organizational Communication (3)
COM 354 Media and Society (3)
COM 443 Seminar in Electronic Media Management and Economics (3)
COM 445 Seminar in Mass Communication Law (3)
COM 450 Topics in Communication (with adviser approval) (3)

Research and Reasoning
One of these:
COM 353 Audience Analysis (3)
COM 354 Media and Society (3)
COM 414 Senior Project (with adviser approval) (4)
COM 447 Mass Media Criticism (3)

Culture and Diversity
One of these:
COM 206 Diversity and Culture in American Film (3)
COM 247 Rhetoric of Disability Rights (3)
COM 281 Mediated Sexualities (3)
COM 282 Sexuality and Film (3)
COM 354 Media and Society (3)
COM 436 Intercultural Communication (3)
COM 441 Rhetoric of Religion (3)
COM 446 International Mass Communication (3)
COM 450 Topics in Communication (with adviser approval) (3)
COM 461 Gender and the Media (3)

Media Institutions Context Specialization
Three of these:
COM 258 Writing for the Electronic Media: Copywriting (3)
COM 259 Introduction to Public Relations (3)
COM 301 Journalism Law and Ethics (3)
COM 353 Audience Analysis (3)
COM 355 Media Technology (3)
COM 411/IMS 440 Interactive Media Studies Practicum (4)
COM 414 Senior Project (with adviser approval) (4)
COM 426 Inside Washington (4)
COM 438 Political Communication (3)
COM 443 Seminar in Electronic Media Management and Economics (3)
COM 446 International Mass Communication (3)
COM 450 Topics in Communication (with adviser approval)

Elective
Take one additional COM course (3)

Note: You may count a course in one category only.

Related Hours
Choose a total of nine hours from these:
ACC 221 Introduction to Financial Accounting (3)
ACC 222 Introduction to Managerial Accounting (3)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
HST 250 History and Popular Culture (3)
HST 252 Representation of History in Film and Video (3)
JRN 101 Introduction to Journalism (3)
MKT 291 Principles of Marketing (3)
MKT 325 Consumer Behavior (4)
MKT 435 Branding and Integrated Marketing Communication (4)
MGT 111 Introduction to Business (3)
MGT 291 Organizational Behavior and Theory (3)
MGT 303 Human Resource Management (3)
POL 303 Modern Political Philosophy (4)
POL 307 Public Opinion Laboratory (2)
POL 326 Comparative Ethnic Politics (3)
POL 333 Politics of Western Europe (4)
POL 345 National Issues (3)
POL 346 Global Gender Politics (3)
POL 351 Criminal Justice (4)
POL 352 Constitutional Law and Politics (4)
POL 353 Constitutional Rights and Liberties (4)
POL 354 Political Parties and the Election Process (3)
POL 355 Public Opinion and Political Behavior (3)
POL 356 Mass Media and Politics (3)
POL 381 Global Governance (3)
SOC 412 Sociology of Law (3)

Notes on Curriculum:
• Students are required to take at least three major courses at 400 level.
• COM 146 is a prerequisite for all production and writing courses
• COM 167 is designed for pre-majors or non-majors as a preview of practicum experience. Entry is limited.
• COM 177, 277, 340, 377, and 477 may count toward hours needed for graduation, but not normally toward specific mass communication curriculum requirements.
• COM 167 and 367 may count toward hours needed to graduate, but may not be used to satisfy theory and context or context specialization requirements.

Mathematics- Bachelor of Arts, Bachelor of Science

For information, contact the Department of Mathematics, 123 Bachelor Hall (513-529-5818) or the Department of Statistics, 311 Upham Hall (513-529-7828).

Two degrees are offered: Bachelor of Arts and Bachelor of Science. For the Bachelor of Science, choose one of two majors: mathematics or mathematics and statistics. The A.B. requires all sections of the College of Arts and Science Requirement (CAS), while the B.S. has only the language requirement. Each program has the related hours requirement. All MTH and STA courses applied to your program, and all courses in the 12-hour section of the related hours, should be taken for grades, not credit/no-credit. In the MTH and STA courses, your g.p.a. must be at least 2.00. Service courses do not figure into your g.p.a. unless explicitly approved by the department.

Program Requirements: Bachelor of Arts

This program requires at least 19 semester hours in MTH or STA courses numbered 300 or above with at least 16 hours at the 400 level, and must include:

A calculus sequence ending with one of these:
MTH 252 Calculus III (4)
MTH 252H Honors Calculus III (4)

One of these:
MTH 222 Introduction to Linear Algebra (3)
MTH 222T Introduction to Linear Algebra (Honors) (2)

A course chosen from one of these three lines:
MTH 421 Introduction to Abstract Algebra (4)
MTH 441 Real Analysis (3) **or**

MTH 451 Introduction to Complex Variables (3)
MTH 491 Introduction to Topology (3)

A course chosen from one of these five lines:
MTH 432 Optimization (3)
MTH 437 Game Theory and Related Topics (3) **or**
MTH 436 Combinatorial Designs and Coding Theory (3) **or**
MTH 438 Theory and Application of Graphs (3) **or**
MTH 439 Combinatorics (3)
MTH 447 Topics in Mathematical Finance (3)
MTH 453 Numerical Analysis (3)
STA 401 Probability (3)

At least one more course from the eight previous lines. This course must lie on a line different from the previous two choices.

Additional courses that count in the 19-advanced hour requirement are those in the above lists together with MTH 331, 347, 410, 411, 413, 420, 422, 425 (MPC), 435 (MPC), 440, 442, 454, 470, 483, 486, 492; STA 462, 463, 466, 467, 483, 484.

Students in the Bachelor of Science in Education Integrated Mathematics Program who complete all of MTH 408, MTH 409, and MTH 482 may count three hours toward the 400 level hours required in the AB.

Program Requirements: Bachelor of Science

Two majors, mathematics and mathematics and statistics, are offered for this degree. Each requires the following introductory courses:

A calculus sequence ending with one of these:
MTH 252 Calculus III (4)
MTH 252H Honors Calculus III (4)

One of these:
MTH 222 Introduction to Linear Algebra (3)
MTH 222T Introduction to Linear Algebra (Honors) (2)

Major in Mathematics: Bachelor of Science

This program requires at least 28 semester hours of MTH and STA courses at the 300 level or above with at least 22 hours at the 400 level.

Theory courses. Both of these:
MTH 421 Introduction to Abstract Algebra (4)
MTH 441 Real Analysis (3)

At least two of these:
MTH 411 Foundations of Geometry (3)
MTH 422 Linear Algebra and Fields (4)
MTH 438 Theory and Application of Graphs (3)
MTH 442 Real Analysis (3)
MTH 451 Introduction to Complex Variables (3)
MTH 483 Introduction to Mathematical Logic (3)
MTH 486 Introduction to Set Theory (3)
MTH 491 Introduction to Topology (3)

Applications courses. At least two of these:
MTH 347 Differential Equations (3)
MTH 432 Optimization (3)
MTH 436 Combinatorial Designs and Coding Theory (3)
MTH 437 Game Theory and Related Topics (3)
MTH 439 Combinatorics (3)
MTH 447 Topics in Mathematical Finance (3)
MTH 453 Numerical Analysis (3)

Electives:
Additional courses to complete the 28 required hours may be chosen from lists above or from MTH 331, 410, 413, 420, 425 (MPC), 435 (MPC), 440, 454, 470, 482 (MPC), 492, STA 401, 462. At most, two of the 28 hours may be from 430 or independent studies.

Major in Mathematics and Statistics: Bachelor of Science

The program requires at least 31 semester hours of MTH and STA courses at 300 level or above with at least 22 hours from MTH and STA courses at the 400 level.

Mathematics courses. All of these:
MTH 347 Differential Equations (3)
MTH 421 Introduction to Abstract Algebra (4)
MTH 441 Real Analysis (3) **or**
MTH 451 Introduction to Complex Variables (3)

At least one of these:
MTH 432 Optimization (3)
MTH 436 Combinatorial Designs and Coding Theory (3)
MTH 437 Game Theory and Related Topics (3)
MTH 438 Theory and Applications of Graphs (3)
MTH 439 Combinatorics (3)
MTH 447 Topics in Mathematical Finance (3)
MTH 453 Numerical Analysis (3)

Statistics courses. All of these:
STA 301 Applied Statistics (3)
STA 401 Probability (3)
STA 463 Regression Analysis (4)

At least one of these:
STA 462 Inferential Statistics (3)
STA 466 Experimental Design Methods (4)

Electives:
Additional courses to complete the 31 required hours from lists above or from MTH 331, 410, 411, 413, 420, 422, 425 (MPC), 435 (MPC), 440, 442, 454, 470, 482 (MPC), 483, 486, 491, 492; STA 402, 467, 475 (MPC), 483, 484. At most, two of the 31 hours may be from 430 or independent studies.

Important Note:
Students with previous credit for STA 261 may not take STA 301 and must take additional hours from the electives list to complete the 31 required hours.

Related Hours

A program of related courses is intended to provide the student with opportunities to see and do mathematics or statistics in the context of other disciplines and, perhaps, enhance the student's employment prospects. The departmental requirement is for a program of at least 15 hours. Each program includes:

- A computer programming course, CSE 153, 157, 163, 174, or any CSE course with one of these as a prerequisite.
- At least 12 semester hours in one subject area with at least six hours at 300 level or above (200 or above in chemistry, physics, engineering, or computer science and software engineering).

You may elect to design your own program of related courses. Such programs must be approved by the chief departmental adviser *in advance of applying for graduation*. For a list of pre-approved programs of related courses and those that include a thematic sequence, see the chief departmental adviser.

Teacher Licensure

Students who wish to combine teacher licensure with a major in the Department of Mathematics should apply for admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

To earn an A.B. degree in addition to teacher licensure, you must complete the requirements for the Bachelor of Arts degree as stated earlier, while also satisfying your professional education course requirements. As a consequence, the following courses (not all of which apply toward the A.B.) are automatically required to be in your academic program:

These courses must include:
MTH 331 Discrete Mathematics (3)
MTH 408 Mathematical Problem Solving With Technology (3)
MTH 409 Secondary Mathematics from an Advanced Perspective (3)
MTH 411 Foundations of Geometry (3)
MTH 421 Introduction to Abstract Algebra (4)
MTH 482 Great Theorems of Mathematics (3)
STA 301 Applied Statistics (3)
STA 401 Probability (3)

One additional course is required for completion of the A.B. degree. See the A.B. requirements for details about the selection of this course.

To earn a B.S. degree in addition to teacher licensure, you must complete the requirements for the B.S. in Mathematics or the B.S. in Mathematics and Statistics. Each of these programs requires four or five additional courses. See the B.S. requirements for details about the selection of these courses.

MTH 491/591 Introduction to Topology (3)
Elementary set theory and cardinality, metric spaces and topological spaces, sequence convergence, complete metric spaces, Baire Category Theorem, continuity, uniform continuity, bases for a topological space, first and second countability, relationships among separable, Lindelof and second countable properties, product topology, separation axioms, Urysohn's Lemma, Tietze Extension Theorem, compactness, characterizations of compactness in metric

spaces, Tychonoff Theorem, local compactness, connectedness. Prerequisite: MTH 222 and MTH 252.

Microbiology- Bachelor of Arts

For information, contact the Department of Microbiology, 32 Pearson Hall (513-529-5422).

No course required for the major in microbiology may be taken on a credit/no-credit basis. MBI 275 and all 100-level microbiology courses cannot be counted toward the g.p.a. or the 32 hours required for the major in microbiology.

Program Requirements
(32 semester hours)

Core Courses (19 hours)
All of these:
MBI 201 General Microbiology I (4)
MBI 202 General Microbiology II (4)
MBI 365 Molecular and Cellular Biology (3)
MBI 425 Microbial Physiology (4)
MBI 445 Microbial Genetics (3)
MBI 490 Undergraduate Seminar (1)

Focus Courses (9 hours minimum)
Select at least two of these:
MBI 405 Pathogenic Microbiology (4)
MBI 415 Immunology Principles and Practice (4)
MBI 435 Medical Mycology (3)

or this course:
MBI 465 Microbial and Molecular Genetics Laboratory (2)

and additional Focus courses including:
MBI 414 Immunology Principles (3)
MBI 464 Human Viruses (3)
MBI 475 Microbial Ecology (3)
MBI 485 Principles of Bioinformatics (3)
MBI 495 Bacterial Cell Biology (3)

to total at least nine hours.

Note: Credit not given for both MBI 414 and MBI 415.

Elective Courses
Additional courses to complete the 32 required hours may be chosen from Focus courses or from the courses below:
MBI 361 Epidemiology (3)
MBI 402 Geomicrobiology (3)
MBI 424 Biological Instrumentation (3)
MBI 440 Research Problems (2)
MBI 466 Bioinformatics Computing Skills (3)
MBI 477 Independent Study (1-4)
MBI 480 Departmental Honors (1-3)

Note: MBI 440, 440C, 477, 477C, 480, and 480C have a maximum of four credit hours that can receive a standard grade.

Related Hours (19-23 hours)
CHM 231 Fundamentals of Organic Chemistry (4) **and**
CHM 332 Outlines of Biochemistry (4) **or**
CHM 241, 242 Organic Chemistry (3, 3) **and**
CHM 244, 245 Organic Chemistry Laboratory (2, 2)
MTH 151 Calculus I (5) **or**
STA 261 Statistics (3)
PHY 171, 172 College Physics (3, 3) **and**
PHY 183, 184 Introduction to Physics Laboratory (1, 1) **or**
PHY 181, 182 The Physical World (3, 3) **and**
PHY 183, 184 Introduction to Physics Laboratory (1, 1)

Philosophy- Bachelor of Arts

For information, contact the Department of Philosophy, 212 Hall Auditorium (513-529-2440).

Program Requirements
(30 semester hours)

Both of these:
PHL 301 Ancient Philosophy (4)
PHL 302 Modern Philosophy (4)

Additional courses in philosophy to total 30 semester hours. No more than two courses may be at the 100 level, no more than two courses may be at the 200 level, and at least two courses must be at 400 level (capstones and independent studies excluded). Choose these courses with your adviser.

Physics- Bachelor of Arts, Bachelor of Science

For information, contact the Department of Physics, 133 Culler Hall (513-529-5625).

Miami offers both a Bachelor of Arts (A.B.) and a Bachelor of Science (B.S.) in physics. The A.B. degree is for those students wishing to acquire a good background in physical science to complement work in other areas. The A.B. degree is especially well suited for persons desiring teacher licensure in physics and those preparing for careers in medicine, law, or business. The B.S. degree prepares students for graduate study or employment in physics or physics-related fields. Engineering physics is described earlier in this chapter.

Program Requirements: Bachelor of Arts
(46-50 semester hours)

All of these:
MTH 151, 251 Calculus I, II (5, 4) **or**
MTH 153, 251 Calculus I, II (4, 4) **or**
MTH 249 Calculus II (5)
MTH 252 Calculus III (4)
PHY 181, 182 The Physical World I, II (4, 4)
PHY 183, 184 General Physics Laboratory (1, 1)
PHY 286 Introduction to Computational Physics (3)
PHY 291 Contemporary Physics (4)
PHY 292 Electronic Instrumentation (3)
PHY 293 Contemporary Physics Laboratory (2)
PHY 294 Laboratory in Electronic Instrumentation (2)

Three hours of physics courses numbered 300-399 (excluding PHY 311) or above 410 with written approval of your physics adviser

Ten hours of related courses with written approval from your physics adviser

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

Program Requirements: Bachelor of Science
(63-71 semester hours)

All of these:
MTH 151, 251 Calculus I, II (5, 4) **or**
MTH 153, 251 Calculus I, II (4, 4) **or**
MTH 249 Calculus II (5)
MTH 222 Introduction to Linear Algebra (3)
MTH 252 Calculus III (4)
PHY 181, 182 The Physical World I, II (4, 4)
PHY 183, 184 Physics Laboratory (1, 1)
PHY 286 Introduction to Computational Physics (3)
PHY 291 Contemporary Physics (4)
PHY 292 Electronic Instrumentation (3)
PHY 293 Contemporary Physics Laboratory (2)
PHY 294 Laboratory in Electronic Instrumentation (2)
PHY 341 Mathematical Methods in Physics (4)
PHY 437 Intermediate Thermodynamics and Introduction to Statistical Physics (4)
PHY 451 Classical Mechanics (4)
PHY 461 Electromagnetic Theory (4)
PHY 491 Introduction to Quantum Physics I (4)

One advanced laboratory course from these:
PHY 420 Advanced Laboratory Physics (4)
PHY 423 Materials Physics (4)
PHY 441 Optics and Laser Physics (4)
PHY 442 Spectroscopy of Atoms and Molecules (4)
PHY 471 Advanced Electronics (3)

Two courses from these:
PHY 421 Introduction to Biophysics (4)

PHY 431 Elementary Particle Physics (3)
PHY 435 Introduction to Astrophysics (4)
PHY 481 Gravitation and Space Time (3)
PHY 488 Research Capstone in Physics (3)
PHY 490S Topics in Physics Seminar (3)
PHY 492 Introduction to Quantum Physics II (3)
Advanced laboratory courses not used to fulfill the advanced laboratory requirement

Advising tracks (recommended, not required):
Atmospheric science: AER 118 (3); MME 313 (3); MTH 347 (3)
Materials: PHY 423 (4), PHY 437 (4); MME 223 (3); CHM 141-145 (10)
Mathematical physics: MTH 347 (3) and two other advanced MTH courses
Optics: PHY 441 (4), PHY 442 (4)
Physics, graduate school: PHY 492 (3)

Political Science- Bachelor of Arts

For information, contact the Department of Political Science, 218 Harrison Hall (513-529-2000).

This major is for liberal arts students interested in the study of politics and government. For this major, at least 17 of the required 34 major hours and at least nine of the required 18 related hours must be from Miami. Required political science and related hours may not be taken on a credit/no-credit basis. A g.p.a. of at least 2.00 is required for political science courses as well as related hours.

Program Requirements

(at least 34 semester hours)

Political Science Courses (34 semester hours minimum)
Choose political science hours from the following major fields: political theory, comparative politics, American government, public administration, and international politics, with the following requirements:

Take this course first:
POL 241 American Political System (4)

At least two of these:
POL 201 Political Thinking (4) *
POL 221 Modern World Governments (4) *
POL 261 Public Administration (4) *
POL 271 World Politics (4) *
* Prerequisites for certain 300 and 400-level courses

Advanced courses:
In consultation with your faculty adviser, select at least 19 additional semester hours from other courses in political science at 300 level or above, with at least one course selected from two of the five major fields listed above. (Hours may include POL MP Capstone. You are not required to take a POL capstone, but you may take one.)

Additional courses:
Additional hours from POL courses at the 200-level and higher to complete the 34 hour requirement (100-level POL courses do NOT apply to the major).

Related Hours (18 required)
1) Take a total of 18 hours from cognated disciplines including:
AMS, ATH, BUS, COM, ECO, GEO, GTY, HST, JRN, PHL, PSY, REL, SOC or AES 221, 222, 431, 432; BWS 151; ITS 201, 301, 302; LAS 207, 208, 372, 415; NSC 202, 311, 401, or 402; WMS 201,301, 401, 370E or BWS 370E.
2) At least 12 hours must be at the 200 level or higher.
3) A minimum 2.00 g.p.a. in all related hours is required.

Important Note:
Students pursuing another major or minor in the department may not also pursue the Political Science major. However, students may double major in Diplomacy and Global Politics and Public Administration. Please note that because these two majors are in the same department, their completion will not satisfy the thematic sequence requirement of the Miami Plan.

Psychology- Bachelor of Arts

For information, contact the Department of Psychology, 100 Psychology Building (513-529-2400).

You must have at least a 2.00 cumulative g.p.a. for all psychology courses attempted and for which a letter grade has been earned. All courses used to satisfy basic departmental requirements must be taken for a letter grade.

Departmental Honors

Eligibility for departmental honors, the support of a faculty advisor and a cumulative and major g.p.a. of 3.25. Departmental honors candidates complete PSY 480 Independent Reading for Department Honors (minimum 4; maximum 6), in which they write and present a thesis. PSY 400 Senior Thesis in Psychology is recommended.

Recommended Courses of Study

This department offers a single major; all majors are encouraged to take a variety of courses in psychology. For flexible career planning, the department suggests courses of study consistent with your career goals. Choose those courses with your academic adviser. As long as you fulfill the Basic Departmental Requirements, your plan of study need not coincide exactly with any of those specified below.

Program Requirements (36 semester hours)

All of these:
PSY 111 Introduction to Psychology (4)
Statistics courses: STA 261 (4), and PSY 293 (4) or STA 363 (3)
Methods course: PSY 294 (4)

At least one course from each of these groups:
Biopsychology: PSY 251 or 351 or 356
Cognitive: PSY 271 or 273 or 372 or 373 or 374 or 375 or 376 or 470
Developmental: PSY 231 or 332 or 333 or 334 or 430
Individual: PSY 241 or 242 or 343 or 345 or 347
Social: PSY 221 or 324 or 325 or 326 or 327 or 328 or 420

Additional requirements:
- Minimum of two 300-level and two 400-level courses.
- One approved topic sequence (a list of sequences is available through the department).
- Additional courses to make up minimum total of 36 semester hours in psychology

Public Administration- Bachelor of Arts

For information, contact the Department of Political Science, 218 Harrison Hall (513-529-2000).

The Public Administration major is designed for undergraduates interested in studying and understanding the issues of governance and management of the public sector, and more specifically about the link between politics and public policy implementation. It is appropriate for those interested in public service careers in the federal government, state government, and/or local government including: city and county management, public finance administration, public personnel administration, and public policy analysis and program evaluation. This major prepares students for continuation of their education in professional and graduate schools of public administration, public policy analysis, and related fields. It also serves as a course of pre-legal study.

At least half of the required semester hours in the Public Administration Core and half of the required semester hours in the Related Hours must be from Miami. Required hours in the Core and Related Hours may not be taken credit/no-credit. A g.p.a. of at least 2.00 is required in the Core as well as in the Related Hours courses.

Program Requirements

Public Administration Core (At least 40 semester hours)

Public Administration Core (take all 17 hours):
POL 241 American Political System (4)
POL 261 Public Administration (4) *
POL 306 Applied Research Methods for Public Administration (3)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)

*POL 261 is prerequisite for 300/400-level courses in Public Administration.

Core elective (at least 18 hours):

At least 12 hours from this list:
POL 351 Criminal Justice (4)
POL 362 Administrative Politics and Decision Making (3)
POL 363 Administrative Law (3)

POL 364 Federalism and Intergovernmental Relations (3)
POL 460 Seminar on Public Administration and Policy Analysis (4)
POL 467 Public Budgeting (3)
POL 468 Public Personnel Administration (3)

*Not more than 6 hours from the following professional related courses can be counted***
ACC 468 Accounting for Governmental Organizations (2)
ACC 469 Accounting for Nongovernmental Not-For-Profit Organizations (1)
COM 339 Introduction to Organizational Communication (3)
ECO 331 Public Sector Economics (3)
ECO 435 Urban and Regional Economics (3)
ENG 313 Introduction to Technical Writing (3)
GEO 451 Urban and Regional Planning (3)
SOC 454 Formal Organization (3)

** Courses appropriate to the major, but not listed as core electives, may in some cases be counted toward the major with the written approval of the student's public administration adviser.

Seniors must take the two capstone courses (concurrently):
POL 406 Public Policy Analysis Lab (2) ***
POL 466 Public Policy Analysis (3) ***

*** Requires Senior standing, completion of the core requirements and 15 hours from above.

Internships

Public administration internships (POL 340B) for majors are coordinated through the Center for Public Management and Regional Affairs, 2 Harrison Hall. Internships provide an added dimension to your educational experience. Internship credits do not fulfill any requirements for the Public Administration major. For information, consult the director of the center.

Religion- Bachelor of Arts

For information, contact the Department of Comparative Religion, 7 Old Manse (513-529-4300).

Program Requirements
(24 semester hours)

REL 302 Methods for the Study of Religion (4)
At least 12 semester hours in religion at 300 level or above (including REL 302)
Additional courses in religion, chosen with your adviser

Note: No more than six semester hours at 100 level can count toward the major. REL 207 and 209 do not count toward the major; however, they may count as related hours.

Related Hours (18 required)
These should be chosen with your adviser; 10 of these hours must be 300-level or above.

Russian Eurasian- Bachelor of Arts

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This interdisciplinary major allows students to study history and culture of Russia, Eastern Europe, and Eurasia, broadly defined as the territory of the former Soviet republics, from medieval times to today. Drawing from a range of disciplines and approaches, students have the opportunity to explore issues of political, social, and regional identity and cultural diversity, as well as official and popular culture. Students select a Language, Literature and Culture emphasis or a History and Politics emphasis.

Proficiency at the level of Russian 202 or above is required. Students are encouraged to attend the Miami summer Russian language workshop in Novgorod, Russia, the Miami summer Russian culture workshop in St. Petersburg, Russia, or an approved academic study program in Central Asia, the Caucasus, or Eastern Europe.

Program Requirements
(36 semester hours)

Core requirements:

HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3)
RUS 201, 202 Intermediate Russian (3, 3)

Language, Literature, and Culture Emphasis (27 hours)
All of these:
RUS 301, 302 Advanced Russian (3, 3)
RUS 311 Readings in Russian (3)

Three of these:
RUS 137 Russian Folklore (3)
RUS 250 Topics in Russian Literature (3; maximum 9)
RUS 251 The East European Vampire Tradition in Folklore, History, and Literature (3)
RUS 253 Jewish Identity and Russian Literature (3)
RUS 255, 256, 257, 258 Russian Literature in English Translation (3, 3, 3, 3)
RUS/FST 263 Soviet Cinema (3)
RUS 401 St. Petersburg: History, Literature, Culture (3)
RUS 411, 412 Advanced Conversation and Composition (3, 3)
RUS 450 Topics in Russian Culture (3, max. 9)
RUS 451 Golden Age of Russian Culture (3)
RUS/FST 272 Cultures and Identities of Eastern Europe: An Introduction Through Literature and Film (3)
RUS 480 Departmental Honors (4-6)

*Three of these:**
ARC 404 Architecture of Russia (3)
ATH/GEO/RUS 306 Peoples and Cultures of Russia and Eurasia (3)
CLS/RUS 214 Russian Reception of Classical Culture (3)
GEO 408 Geography of the Silk Road (2)
HST/POL/RUS 230 Topics in Russian and Eurasian Studies (3)
HST 324 Eurasian Nomads and History (3)
HST 374 Russia to 1855 (3)
HST 375 Russia and the USSR from 1855 to the Present (3)
HST 378 20th Century Eastern European History (3)
HST 470 Topics in Russian History (3)
HST 475 Images of Russia at Home and Abroad (3)
HST 476 The Russian Revolution and the Early Soviet Regime, 1917-1924 (3)
ITS 402O Transition to Democracy in Eastern Europe and the Former USSR (3)
MUS 188 Music of Russia (3)
POL 328 Politics of Central Asia (3)
POL 331 Development of the Russian Polity (3)
POL 332 Post-Soviet Russian Politics (3)
POL 430B Political Systems of Russia and Eastern Europe (4)
POL 440 Havighurst Center Seminar: Topics in Russian and Eurasian Studies (3)
POL 488 Russia and the Republics (3)
REL/RUS 133 Imagining Russia (3)
REL 235 Religions of Russia and Eurasia (3)

* or appropriate courses substituted with approval from your Russian, East European, and Eurasian Studies adviser

History and Politics Emphasis (27 hours)
Two of these:
HST 324 Eurasian Nomads and History (3)
HST 374 Russia to 1855 (3)
HST 375 Russia and the USSR from 1855 to the Present (3)
HST 378 20th Century Eastern European History (3)
HST 470 Topics in Russian History (3)
HST 475 Images of Russia at Home and Abroad (3)
HST 476 The Russian Revolution and the Early Soviet Regime, 1917-1924 (3)

Two of these:
ITS 402O Transition to Democracy in Eastern Europe and the Former USSR (3)
POL 328 Politics of Central Asia (3)
POL 331 Development of the Russian Polity (3)
POL 332 Post-Soviet Russian Politics (3)
POL 420 Gender, Citizenship, and Postcommunism (3)
POL 430B Political Systems of Russia and Eastern Europe (4)
POL 488 Russia and the Republics (3)

Two of these:
ATH/GEO/RUS 306 Peoples and Cultures of Russia and Eurasia (3)
GEO 408 Geography of the Silk Road (2)
HST/POL/RUS 230 Topics in Russian and Eurasian Studies (3)
POL 440 Havighurst Center Seminar: Topics in Russian and Eurasian Studies (3)
REL 235 Religions of Russia and Eurasia (3)

*Three of these:**
ARC 404 Architecture of Russia (3)
CLS/RUS 414 Classical Tradition in Russian Poetry (3)
MUS 188 Music of Russia (3)
REL/RUS 133 Imagining Russia (3)
RUS 137 Russian Folklore (3)
RUS 250 Topics in Russian Literature (3; maximum 9)
RUS 251 The East European Vampire Tradition in Folklore, History, and Literature (3)
RUS 253 Jewish Identity and Russian Literature (3)
RUS 255, 256, 257, 258 Russian Literature in English Translation (3, 3, 3, 3)
RUS/FST 263 Soviet Cinema (3)
RUS/FST 272 Cultures and Identities of Eastern Europe: An Introduction Through Literature and Film (3)
RUS 301, 302 Advanced Russian (3, 3)
RUS 311 Readings in Russian (3)
RUS 401 St. Petersburg: History, Literature, Culture (3)

RUS 411, 412 Advanced Conversation and Composition (3, 3)
RUS 450 Topics in Russian Culture (3, max. 9)
RUS 451 Golden Age of Russian Culture (3)

* or appropriate courses substituted with approval from your Russian, East European, and Eurasian Studies adviser

Sociology- Bachelor of Arts

For information. contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

This major is for liberal arts students interested in the study of society, structures, social processes, and human interaction. These range from two-person interactions to relations between large social institutions to relations between nations.

All sociology majors must take a minimum of nine semester hours in sociology on the Oxford campus. Required sociology and related hours (excluding fieldwork) may not be taken credit/no-credit; however, hours in excess of the required minimum may be taken credit/no-credit. A g.p.a. of at least 2.00 is required for this major, and only three hours of independent study may be included. Not all courses are offered each semester or year; consult with your sociology adviser before registering each semester.

Program Requirements: Basic Major
(36 semester hours)

Note: All courses require SOC 151 or 152 as prerequisite except SOC 141, 221, and 262, which require six semester hours of any social science. Prerequisite may be waived with permission of instructor. Credit **cannot** be granted for both SOC 151 and 152.

All of these:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 262 Research Methodology (4)
SOC 372 Social Stratification (3)
SOC 459 Sociology Capstone (3)
SOC 482 Sociological Theory (4)
Additional hours in sociology to make up the 36 required hours.

Related hours:
Must take STA 261 after taking SOC 262

Elective hours.
Take at least 18 hours:
SOC 141 Multiculturalism in the U.S. (3)
SOC 201 Social Problems (4)
SOC 202 Social Deviance (4)
SOC 203 Sociology of Gender (3)
SOC 205 Comparative Sociology (3)
SOC 208 The Rise of Industrialism in East Asia (3)
SOC 221 Human Sexuality (3)
SOC 225 Work and Occupational Justice (3)
SOC 257 Population (3)
SOC 258 Self and Society (3)
SOC 260A Internship: An Introduction to Applied Sociology and Human Services
SOC 272 Introduction to Disability Studies (3)
SOC 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)

At least nine hours at or above the 300/400 level:
SOC 318 Sociology of Aging and the Life Course (3)
SOC 335 Sociology of Education (4)
SOC 337/338 Directed Research in European Studies (1-4, 1-4)
SOC 347 Urban Sociology (3)
SOC 348 Race and Ethnic Relations (3)
SOC 352 Criminology (3)
SOC 357 Medical Sociology (3)
SOC 358 Sociology of Mental Disorders (3)
SOC 363 Sociology of Families (3)
SOC 375 (Dis)Ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)
SOC 378 Media Illusions: Creations of "The Disabled" Identity (3)
SOC 383 Sociology of Religion (3)
SOC 409/509 Systems of Justice (3)
SOC 410/510 Topics in Criminology (3)
SOC 411 Social Conflict (3)
SOC 412/512 Sociology of Law (3)
SOC 413/513 Juvenile Delinquency (3)
SOC 417/517 Economy and Society (3)
SOC 435/535 Sociology of Death (3)
SOC 440A Applied Field Research (1-16)
SOC 440C Field Experience in Sociology (4-16)
SOC 448 African American Experience (3)
SOC 451/551 Family Violence (3)
SOC 454/554 Formal Organizations (3)
SOC 462 Applied Sociological Research (3)
SOC 463/563 Gender and Aging (3)
SOC 470 Social/Political Activism (3)
SOC 480 Independent Reading for Departmental Honors (1-6)
SOC 490/590 Horizons in Sociology (1-3; max. 6)
SOC 494 Disability in Global and Local Contexts (3)

Note: SOC 459 Sociology Capstone Experience (3) applies toward the minimum 36 semester hour requirement for the major.

Spanish- Bachelor of Arts

For information, contact the Department of Spanish and Portuguese, 268 Irvin Hall (513-529-4500).

No courses in Spanish may be taken credit/no-credit.

Courses taken cannot fulfill more than one requirement for the Spanish major.

Program Requirements
(36 semester hours)

Note: SPN 101, 102 Beginner's Course, SPN 111 Intensive Basic Spanish, SPN 201, 202 Second Year Spanish, and SPN 211 Intensive Intermediate Spanish, do not count in the required 36 hours.

Required Courses
This one:
SPN 311 Grammar Review and Introductory Composition (3)

These two:
SPN 312 Introduction to Spanish Language/Linguistics (3)
SPN 315 Introduction to Hispanic Literature (3)

One of the following sequences:
SPN 351, 352 Cultural History of Spain I, II (3, 3)
SPN 361, 362 Spanish American Cultural History I, II (3, 3)
SPN 381, 382 Spanish Language and Hispanic Culture I, II (3,3)

Nine semester hours from the following (at least 6 hours at the 400/500 level):
SPN 420 Selected Topics in Literature and Culture: Spain (3)
SPN 430 Selected Topics in Literature and Culture: Spanish America (3)
SPN 440 Selected Topics in Language and Culture (3)
SPN 451/551 Studies in Spanish Narrative (3)
SPN 452/552 Studies in Spanish Poetry (3)
SPN 453/553 Studies in Spanish Theater (3)
SPN 454/554 Don Quixote (3)
SPN 461/561 Studies in Spanish American Narrative (3)
SPN 462/562 Studies in Modern Spanish American Drama (3)
SPN 463/563 Studies in Spanish American Poetry (3)
SPN 464/564 Studies in the Spanish American Essay (3)
SPN 481/581 Spanish Phonology and Syntax (3)
SPN 482/582 Spanish Dialectology (3)
SPN 483/583 Same History of the Spanish Language (3)
SPN 484/584 Second Language Acquisition: Spanish (3)

This one:
SPN 490 Senior Seminar/Capstone (3)

Nine semester hours from these:

Choose one course from these:
SPN 316 Intermediate Spanish Composition (3)
SPN 317 Business Spanish (3)
SPN 342 Advanced Conversation (2)

Choose two courses from these:
SPN 351 Cultural History of Spain I (3)
SPN 352 Cultural History of Spain II (3)
SPN 361 Spanish American Cultural History I (3)
SPN 362 Spanish American Cultural History II (3)
SPN 381 Spanish Language and Hispanic Culture I (3)
SPN 382 Spanish Language and Hispanic Culture II (3)

Related Hours (17 required)
Eight hours of Portuguese:
POR 111 Accelerated Introduction to Portuguese (4)
POR 211 Second Year Portuguese (4)

Nine hours from the following.
May include any courses in another foreign language, ancient or modern, or any of these:
ATH 305 Peoples and Cultures of Latin America (3)
ATH 313 Introduction to South American Archaeology (3)

GEO 304 Latin American Development (4)
GEO 405 The Caribbean in Global Context (3)
HST 307, 308 Latin America from Discovery to the Present (3, 3)
HST 487 Mexico Since 1810 (4)
POL 337 Politics of Latin America (3)
POL 378 Latin America: Region and the World (3)
POL 478 Media and Politics in Latin America and the Caribbean (MPC) (3)
REL 317 Religions of Meso-America (3)
THE 391 Modern American Theatre (3)
THE 392 Modern European Theatre (3)
THE 491 Theatre History: Classic through Neo-Classic (3)
THE 492 Theatre History: Restoration through Late 19th Century (3)
THE 493 American Theatre (3)
Any Latin American Studies course
Any literature course in the English department

Students with specific needs can work out other plans of related hours with their advisers. A second major substitutes for the 17 related hours.

Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the School of Education Health and Society chapter. For information, contact the Office of Student Services in the School of Education Health and Society, 202 McGuffey Hall (513-529-6418).

Speech Communication- Bachelor of Arts

For information, contact the speech communication area of the Department of Communication, 160 Bachelor Hall (513-529-7472).

Speech communication is the study of how our sense of social and individual reality is created through human communication processes. Through in-depth study of communication theories, methodologies, and contexts, we explore how communication is included in the development, maintenance, and termination of relationships in interpersonal, small group, organizational, and public contexts. Specific focus options are described in Program Options below.

Special Admission Requirements

Enter the program as a pre-communication major and take these three courses:

COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Students may apply for admission to the major (which is selective) after taking the three pre-major courses and after completing 30 hours. Admission is based cumulative g.p.a. and pre-major g.p.a. Requirements are subject to change, so check the department website for current information.

Internship

Qualified speech communication majors are encouraged to participate in internships. Speech communication area faculty select internship recipients; criteria include, but are not restricted to, g.p.a. (minimum 2.75 overall and 3.00 in all classes taken for the major), academic preparation for the particular internship, junior or senior standing, and faculty recommendations. Internship application procedures should be completed by April 15 for summer and fall semesters and November 15 for spring semester. Speech communication area faculty are not obligated to provide all students with internships.

Program Options

This major has two areas of focus: interpersonal/relational communication and rhetorical influence. Both lead to the A.B. with a major in speech communication. You must have written approval from your adviser for your specific area of focus.

Program Requirements: Interpersonal/Relational Communication

The objective of this focus is to create a detailed understanding of how people use verbal and nonverbal communication to define, negotiate, and change their relationships. This focus increases awareness of key variables, including individual differences (e.g., personality and demographic factors) and cultural/social influences (e.g., AIDS, computer technology) on various types of relationships (e.g., professional, romantic, family). A thorough, systematic examination of relevant theory and research regarding interpersonal/relational communication is offered. This focus is intended for students planning to enter graduate programs in speech communication (and related disciplines) and/or to apply this knowledge to their personal and professional lives.

Major Degree Requirements

(46 semester hours)

Pre-major courses
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Communication theory
COM 239 Theories of Communication (3)

Research Methods
Two of these:
DSC 205 Business Statistics (4)* **or**
STA 261 Statistics (4) **or**
STA 301 Applied Statistics (3) **and**
COM 262 Communication Research (3) **or**
COM 341 Methods of Rhetorical Criticism (3)**

* Prerequisite for COM 262
** Prerequisite is COM 239

Context Area
Nine hours from these:
COM 206 Diversity and Culture in American Film (3)
COM 231 Small Group Communication (3)
COM 281 Mediated Sexualities (3)
COM 336 Advanced Interpersonal Communication (3)*
COM 339 Introduction to Organizational Communication (3)
COM 428 Communication in Conflict Management (3)
COM 434 Nonverbal Communication (3)
COM 436 Intercultural Communication (3)

* Required course

Culture and Diversity
One of these:
COM 206 Diversity and Culture in American Film (3)
COM 247 Rhetoric of Disability Rights (3)
COM 281 Mediated Sexualities (3)
COM 282 Sexualities and Film (3)
COM 354 Media and Society (3)
COM 436 Intercultural Communication (3)
COM 441 Rhetoric of Religion (3)
COM 446 International Mass Communication (3)
COM 461 Gender and the Media (3)

Elective
Take one additional COM course

Note: You may count a course in one category only.

Related Hours (12 required)*
AMS 392 Sex and Gender in American Culture (3)
ATH 265 Language and Culture (3)
ATH 301 Intercultural Relations (3)
ATH 331 Social Anthropology (3)
EDL 334 Youth Subcultures, Popular Culture, and the Non-Formal Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3)
EDP 356 Human Development (3)
FSW 261 Diverse Family Systems Across Life Cycle (3)
FSW 262 Current Controversies (4)
FSW 281 Child Development in Diverse Families (3)
FSW 312 Human Behavior in the Social Environment (3)
FSW 361 Couple Relationships: Diversity and Change (3)
FSW 381 Parent/Child Relationships in Diverse Families (3)
FSW 461 Marital Distress and Divorce: Implications for Family Life Professionals (3)
FSW 464 Perspectives on Close Relationships (3)
FSW 466 Later Life Families (3)
FSW 475 Family Theories (3)
FSW 498 Critical Thinking About Family Relationships (4)
GTY 472 Minority Aging (3)
ITS 301 Intercultural Relations (3)
MGT 291 Organizational Behavior and Theory (3)

MGT 303 Human Resource Management (3)
MGT 381 Managerial Development Seminar (3)
MGT 405 Labor Relations and Conflict Management (3)
MGT 415 Leadership and Learning (3)
PHL 312 Contemporary Moral Problems (4)
PSY 221 Social Psychology (3)
PSY 241 Personality (3)
PSY 325 Psychology of Prejudice and Minority Experience (3)
PSY 326 Psychology of Women (3)
PSY 328 Psychology of Stigma and Victimization (3)
PSY 344 Analysis of Interpersonal Behavior in Small Groups (3)
SOC 203 Sociology of Gender (3)
SOC 221 Human Sexuality (3)
SOC 258 Self and Society (3)
SOC 348 Race and Ethnic Relations (3)
SOC 361 Sociology of Families (3)
SOC 448 The African American Experience (3)
SOC 463 Gender and Aging (3)
SPA 233 Perspective of the Human Face (3)

Program Requirements: Organizational Communication

The purpose of this focus is to prepare students to understand, explain, and predict how communication affects organizational systems and performance. Students are encouraged to apply communication theories and methods to a variety of organizational issues. Students gain a better understanding of how people interact to perform tasks, how communication can be improved in the organization, and how the organization can be improved through communication.

Major Degree Requirements

(46 semester hours)

Pre-major courses
All of these:
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Communication theory
COM 239 Theories of Communication (3)

Research Methods
Two of these:
DSC 205 Business Statistics (4)* **or**
STA 261 Statistics (4) **or**
STA 301 Applied Statistics (3) **and**
COM 262 Communication Research (3) **or**
COM 341 Methods of Rhetorical Criticism (3) **

** Prerequisite for COM 262*
*** Prerequisite is COM 239*

Context Area
These two:
COM 339 Introduction to Organizational Communication (3)
COM 439 Advanced Organizational Communication (3)

One of these:
COM 231 Small Group Communication (3)
COM 259 Introduction to Strategic Communication and Public Relations (3)
COM 336 Advanced Interpersonal Communication (3)
COM 428 Communication in Conflict Management (3)
COM 436 Intercultural Communication (3)
COM 443 Seminar in Mass Media Management (3)

Culture and Diversity
One of these:
COM 206 Diversity and Culture in American Film (3)
COM 247 Rhetoric of Disability Rights (3)
COM 281 Mediated Sexualities (3)
COM 282 Sexualities and Film (3)
COM 436 Intercultural Communication (3)
COM 441 Rhetoric of Religion (3)
COM 446 International Mass Communication (3)
COM 461 Gender and the Media (3)

Elective
Take one additional COM course

Note: You may count a course in one category only.

Related Hours (12 hours required)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
ECO 385 Government and Business (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3)
EDP 301 Assessment and Evaluation in Educational Settings (3)
EDP 356 Human Development (3)
ENG 315 Business Writing (3)
IMS 201 Information Studies in the Digital Age (3)
MGT 291 Organizational Behavior and Theory (3)
MGT 302 Operations Management (3)
MGT 303 Human Resource Management (3)
MGT 381 Managerial Communication and Consulting (3)
MGT 402 Employment Law (3)
MGT 404 Compensation Management (3)
MGT 405 Labor Relations and Conflict Management (3)
MGT 406 Staffing Organizations (3)
MGT 414 Motivation and Work (3)
MGT 415 Leadership and Learning (3)
MGT 475 Organizational Change Management (3)
MIS 235 Information Technology and the Intelligent Enterprise (3)
MIS 281 Application Development Tools and Environment (3)
MKT 291 Principles of Marketing (3)
POL 261 Public Administration (4)
POL 362 Administrative Politics and Decision-Making (3)
POL 364 Federalism and Intergovernmental Relations (3)
POL 381 Global Governance (3)
POL 468 Public Personnel Administration (3)
PSY 262 Business Psychology (3)
SOC 205 Comparative Sociology (3)
SOC 208 The Rise of Industrialism in East Asia (3)
SOC 335 Sociology of Education (3)
SOC 347 Urban Sociology (3)
SOC 417 Economy and Society (3)
SOC 454 Formal Organization (3)

Speech Pathology and Audiology-Bachelor of Science

For information, contact the Department of Speech Pathology and Audiology, 2 Bachelor Hall (513-529-2500).

Miami offers the Bachelor of Science in speech pathology and audiology. The State of Ohio requires a series of graduate courses in order to practice as a speech pathologist or audiologist; you cannot be licensed in Ohio without the required graduate courses. More information is available from the Department of Speech Pathology and Audiology and on the Department's website.

Special Admission Requirements

Enter the program as a pre-speech pathology and audiology major and take these six courses:

SPA Pre-major courses: (17 hours)
SPA 127 Introduction to Communication Disorders (3)
SPA 216 Introduction to Audiology (3)
SPA 222 Anatomy of the Speech and Hearing Mechanism (3)
SPA 223 Theories of Language (3)
SPA 225 Neuroscience and Communication Behavior (3)
SPA 293 Sophomore Seminar in Speech Pathology and Audiology (1)

Students may apply for admission to the major after taking the six pre-major courses and if they have earned a cumulative g.p.a. of 3.00 and a 3.00 in the SPA pre-major courses.

SPA Required major courses: (17 hours)

SPA 326 Therapy for the Hearing Handicapped (3)
SPA 334 Clinical Phonetics and Articulation Disorders (3)
SPA 393 Junior Seminar in Speech Pathology and Audiology (1)
SPA 426 Language Disorders (3)
SPA 427 Alternative Communication Systems for the Severely Handicapped (2)
SPA 435 Speech and Hearing Science (3)
SPA 493 Senior Seminar in Speech Pathology and Audiology (1)

SPA Required related courses: (24-25 hours)
EDL 204 Sociocultural Studies in Education (3)
EDP 201 Human Development and Learning in Educational Environments (3) **or**
EDP 101 Critical Issues in the Psychology of the Learner (3) **or**
PSY 111 Introduction to Psychology (4)
EDP 256 Psychology of the Exceptional Learner (3)
FSW 281 Child Development (4)
PHY 131 Physics for Music (3) **or**
PHY 101 Physics and Society (3) **or**
PHY 121 Energy and Environment (3)
STA 261 Statistics (4)
ZOO 161 Human Physiology (4)

SPA elective courses:
SPA 211 Deaf Culture and Community (3)
SPA 233 Perspectives of the Human Face (3)
SPA 248 American Sign Language I (3)
SPA 402 Counseling Strategies for Speech Pathologists and Audiologists (3)

SPA 413 Senior Seminar in Communication Disorders (3)
SPA 416 Research Design (3)
SPA 422 Clinical Aspects of Audiology (3)

Statistics- Bachelor of Science

For information, contact the Department of Mathematics, 123 Bachelor Hall (513-529-5818) or the Department of Statistics, 311 Upham Hall (513-529-7828).

Two degrees are offered: Bachelor of Arts (see Mathematics - Bachelor of Arts) and Bachelor of Science. For the Bachelor of Science, choose one of three majors: mathematics, statistics, or mathematics and statistics. The A.B. requires all sections of the College of Arts and Science Requirement (CAS), while the B.S. has only the language requirement. Each program has the related hours requirement. All courses taken from the departments and applied to your program, and all courses in the 12-hour section of the related hours, should be taken for grades, not credit/no-credit. In the courses taken from the departments, your g.p.a. must be at least 2.00. Service courses do not figure into your g.p.a. unless explicitly approved by the department.

Major in Statistics: Bachelor of Science
The program requires at least 29 hours of STA courses at the 300-level or above.

Statistics courses (all of these):
STA 301 Applied Statistics (3)
STA 401 Probability (3)
STA 402 Statistical Programming (3)
STA 462 Inferential Statistics (3)
STA 463 Regression Analysis (4)
STA 466 Experimental Design Methods (4)

At least three of these:
STA 333 Nonparametric Statistics (3)
STA 365 Statistical Quality Control (3)
STA 432 Survey Sampling in Business (3)
STA 467 Multivariate Analysis (3)
STA 475 Data Analysis Practicum (3) MPC
STA 483 Analysis of Forecasting Systems (3)
STA 484 Analysis of Categorical Data (3)

Note: Students with previous credit for STA 261 may not take STA 301 and must take additional hours from the electives list to complete the 29 required hours.

Major in Mathematics and Statistics: Bachelor of Science

The program requires at least 31 semester hours of MTH and STA courses at 300 level or above with at least 22 hours from MTH and STA courses at the 400 level.

Mathematics courses. All of these:
MTH 347 Differential Equations (3)
MTH 421 Introduction to Abstract Algebra (4)
MTH 441 Real Analysis (3) **or**
MTH 451 Introduction to Complex Variables (3)

At least one of these:
MTH 432 Optimization (3)
MTH 436 Combinatorial Designs and Coding Theory (3)
MTH 437 Game Theory and Related Topics (3)
MTH 438 Theory and Applications of Graphs (3)
MTH 439 Combinatorics (3)
MTH 447 Topics in Mathematical Finance (3)
MTH 453 Numerical Analysis (3)

Statistics courses. All of these:
STA 301 Applied Statistics (3)
STA 401 Probability (3)
STA 463 Regression Analysis (4)

At least one of these:
STA 462 Inferential Statistics (3)
STA 466 Experimental Design Methods (4)

Electives:
Additional courses to complete the 31 required hours from lists above or from MTH 331, 410, 411, 413, 420, 422, 425 (MPC), 435 (MPC), 440, 442, 454, 470, 482 (MPC), 483, 486, 491, 492; STA 402, 467, 475 (MPC), 483, 484. At most, two of the 31 hours may be from 430 or independent studies.

Important Note:
Students with previous credit for STA 261 may not take STA 301 and must take additional hours from the electives list to complete the 31 required hours.

Related Hours
A program of related courses is intended to provide the student with opportunities to see and do mathematics or statistics in the context of other disciplines and, perhaps, enhance the student's employment prospects. The departmental requirement is for a program of at least 15 hours. Each program includes:

- A computer programming course, CSE 153, 157, 163, 174, or any CSE course with one of these as a prerequisite.
- At least 12 semester hours in one subject area with at least six hours at 300 level or above (200 or above in chemistry, physics, engineering, or computer science and software engineering).

You may elect to design your own program of related courses. Such programs must be approved by the chief departmental adviser *in advance of applying for graduation*. For a list of pre-approved programs of related courses and those that include a thematic sequence, see the chief departmental adviser.

Teacher Licensure

Students who wish to combine teacher licensure with a major in the Department of Mathematics should apply for admission to a licensure cohort as outlined in the School of Education, Health and Society chapter. For information, contact the Office of Student Services in the School of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

To earn an A.B. degree in addition to teacher licensure, you must complete the requirements for the Bachelor of Arts degree as stated earlier, while also satisfying your professional education course requirements. As a consequence, the following courses (not all of which apply toward the A.B.) are automatically required to be in your academic program:

These courses must include:
MTH 331 Discrete Mathematics (3)
MTH 408 Mathematical Problem Solving With Technology (3)
MTH 409 Secondary Mathematics from an Advanced Perspective (3)
MTH 411 Foundations of Geometry (3)
MTH 421 Introduction to Abstract Algebra (4)
MTH 482 Great Theorems of Mathematics (3)
STA 301 Applied Statistics (3)
STA 401 Probability (3)

One additional course is required for completion of the A.B. degree. See the A.B. requirements for details about the selection of this course.

To earn a B.S. degree in addition to teacher licensure, you must complete the requirements for the B.S. in Mathematics or the B.S. in Mathematics and Statistics. Each of these programs requires four or five additional courses. See the B.S. requirements for details about the selection of these courses.

Strategic Communication- Bachelor of Arts

Strategic communication is the study of how organizations and individuals use communication to negotiate their role in society. Public relations is a central aspect of strategic communication and involves the study of how organizations utilize responsible behavior and two-way communication in order to influence opinions and behavior of key publics (e.g., employees, consumers, government, community, media) as well as to respond and adapt to the concerns of these publics.

Students explore communication contexts, theories, and processes as a means of understanding and critically analyzing social influence. In addition, students learn to evaluate challenges and engage in strategic communication to respond to them.

This degree is for those planning to enter graduate school in communication and related disciplines, including law school, and/or to apply this knowledge to their chosen career (e.g., corporate, nonprofit, governmental, social issues, public relations, public affairs, or related areas that call for a strong liberal arts background).

You are encouraged to join Miami University's chapter of the Public Relations Student Society of America (PRSSA), a national organization for students. PRSSA members learn more about public relations and strategic communication, network with other students and professionals across the country, gain practical hands-on experience through a variety of committee activities and a student-run public relations firm, locate job and internship opportunities, serve their community, and develop strong leadership skills. More information is available in the Department of Communication office.

Special Admission Requirements

Enter the program as a pre-communication major and take these three courses:

COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Students may apply for admission to the major (which is selective) after taking the three pre-major courses and after completing 30 hours. Admission is based on cumulative g.p.a. and pre-major g.p.a. Requirements are subject to change, so check the department website for current information.

Program Requirements

(49 semester hours)

Pre-major courses
All of these:
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 143 Introduction to Mass Communication (3)

Communication theory and research courses
All of these:
COM 239 Theories of Communication (3)
COM 259 Introduction to Strategic Communication and Public Relations (3)
COM 262 Introduction to Quantitative Communication Research (3)
COM 359 Strategic Communication Planning (3)
COM 431 Persuasion Theory and Research (3) **or**
COM 437 Advocacy in Contemporary America (3)
COM 459 Capstone in Strategic Communication and Public Relations (3)
Six (6) hours of COM electives (mass communication or speech communication courses)

Note: No more than 4 hours of COM 440, Internship and/or Independent Study may be counted in this category.

Related application courses - statistics, marketing, and journalism
JRN 201 News Reporting and Writing for All Media I (3)
MKT 291 Principles of Marketing (3)
STA 261 Statistics (4)

One course chosen from among:
COM 258 Copywriting for Electronic Media (3) (Prerequisite: COM 146)
JRN 202 Reporting and News Writing II (3)
JRN 312 Public Affairs Reporting (3)
JRN 316 Editing and Design (3) (3)
JRN 318 Advanced Storytelling in Journalism (3)

Three hours chosen from among:
ENG 411 Visual Rhetoric for Technical and Scientific Communication (3) **or**
three (3) hours from IMS, CSE or MIS

Urban and Regional Planning- Bachelor of Arts

For information, contact the Department of Geography, 216 Shideler Hall (513-529-5010).

This major is for students interested in an integrated view of urban affairs and an introduction to planning principles.

Program Requirements

(40 semester hours)

Planning principles. All of these:
GEO 101 Global Forces/Local Diversity (3)
GEO 201 Geography of Urban Diversity (3)
GEO 451 Urban and Regional Planning (3)
GEO 459 Advanced Urban and Regional Planning (3)

Development issues. One of these:
GEO 454 Urban Geography (3)
GEO 457 Global Cities (3)
GEO 462 Public Space (3)
GEO 467 Land Use, Law, and the State (3)
GEO 473 Development and Underdevelopment (3)
GEO 492 Geography of the Auto Industry (3)
GEO 493 Urban Field Experience (3)
Selected GEO 460 courses with permission of primary adviser.

Social issues. One of these:
AMS 204 Introduction to Public History (3)
ARC 405H Habitat and Human Settlement (3)
ARC 405Q Housing Case Studies (3)
ARC 427 The American City Since 1940 (3)
ATH/GTY 476 Environment and Aging
BWS/PSY 325 Identity: Race, Gender, and Class (3)
BWS/SOC 348 American Minority Relations (3)
BWS/FSW 362 Family Poverty (3)
GEO 455 Race, Urban Change and Conflict in America (3)
GEO 458 Cities of Difference (3)
GEO 476 Global Poverty (3)
SOC 234 Historic Preservation (3)
SOC 347 Urban Sociology (3)
Selected GEO 460 courses with permission of primary adviser.

Administration and politics. One of these:
ECO 331 Public Sector Economics (3)
ECO 385 Government and Business (3)
ECO 435 Urban and Regional Economics (3)
GEO 475 Global Periphery's Urbanization (3)
POL 261 Public Administration (4)
POL 362 Administrative Politics and Decision Making (3)
POL 363 Administrative Law (3)
POL 364 Federalism and Intergovernmental Relations (3)
POL 467 Public Budgeting (3)
POL 468 Public Personnel Administration (3)

Analytic techniques for planning. Both of these:
GEO 241 Map Interpretation (3)
STA 261 Statistics (4)

Other tools. One of these:
GEO 437 Regional Land Use Capability Analysis (3)
GEO 441 Geographic Information Systems (3)
GEO 442 Advanced Geographic Information Systems (3)
GEO 444 GIScience in Landscape Ecology (3)
GEO 447 Aerial Photo Interpretation (4)
GEO 448 Techniques and Applications of Remote Sensing (3)
Selected GEO 460 courses with permission of primary adviser.

Concentration. Courses in one of these tracks to total 40 hours in your major:
Development track: Courses listed under Development issues above.
Social track: Courses listed under Social issues above.
Analytic track: Courses listed under Analytic techniques above.
General track: Any courses listed above, in consultation with adviser.

Women's Studies- Bachelor of Arts

For information, contact the Women's Studies Program Office, 126 MacMillan Hall (513-529-4616).

Women's Studies is an interdisciplinary program that investigates how our lives are affected by gender race, class, age, sexuality, religion, (dis)ability, gender identity, and nationality. Women's Studies emphasizes the importance of understanding gender as a part of wider social and political structures of power, knowledge, experience, culture, embodiedness, intimacy, and labor. Women's Studies courses are organized around contemporary feminist research and theory, and focus intersectionally on women, gender, and sexuality as subjects of inquiry. Our coursework also focuses on how theory and practice come together. Students may choose from courses spanning departments, disciplines, divisions and ideologies. The Women's Studies program provides a context in which women's work and women's issues are explored in-depth, celebrating women's creativity, women's lives, and women's work. In Women's Studies, students find an active and supportive community, close interaction with faculty, opportunities to take on leadership roles,

and an academic program that allows them to cross the traditional disciplinary boundaries.

Choose from three areas of focus or design a focus area in consultation with a Women's Studies adviser. Disciplines represented include architecture, art, classics, education, English, family studies, foreign languages, geography, history, philosophy, political science, psychology, religion, sociology, theatre, business, and the sciences. Flexibility of the major requirements allows you to design a program to suit your needs and interests. This major prepares you for graduate or professional school and for a career in research and writing, a nonprofit agency, public policy, social services, business, law, or communication.

Departmental Honors

To receive departmental honors you must complete WMS 470 (3 credit hours), register for one additional credit of WMS 470 which entails the completion of a special activism project, and have a cumulative g.p.a. of 3.50 in the major. Students must register their intent to pursue departmental honors and file a proposal for their activism project in the WMS program office, 126 MacMillan.

Program Requirements

(31-32 semester hours)

Core Courses (13-14 semester hours)

Both of these:
WMS 201 Introduction to Women's Studies (3) (MPF)
WMS 301 Women and Difference: Intersections of Race, Class, and Sexuality (3)

One of these:
WMS/PHL 355 Feminist Theory (4)
WMS/ENG 368 Feminist Literary Theory and Practice (3)
WMS/BWS/ENG 435 Queer Theory (3)
WMS 437 Black Feminist Theory (3)
A feminist theory course approved by a WMS adviser

One of these:
WMS/BWS/ENG 432 Feminism and Diaspora: U.S. Women of Color (3) (MPC)
WMS 401 Women in Transforming Society (3) (MPC)

Focus Area (18 semester hours)
Nine hours must be 300 or 400 level in one of the following areas. A maximum of six semester hours in an approved internship, community action, or service-learning experience may be substituted for course work. A course cannot count both as a core course and an elective. Some courses have prerequisites. Because some courses vary in content, the Women's Studies Program publishes a list of approved courses prior to every semester.

Gender, race, and nation
ART 480M Gender in Medieval Art (3)
ART 480W Women in Medieval Art (3)
ATH/BWS/LAS/WMS 325 Identity: Race, Gender, Class, Sexuality (3)
BWS/WMS/ENG 432 Feminism and the Diaspora: U.S. Women of Color (3)*
BWS/SOC 448 The African-American Experience (3)
CLS/WMS 235 Women in Classical Antiquity (3)
CLS/REL/WMS 334 Women's Religious Experiences in the Ancient Mediterranean (3)
ENG/WMS 233 British Women Writers (3)
ENG 338 African American Writing, 1946-Present (3)
WMS 431 French Feminist Theory (3)*
FST/ENG/WMS 350B Women in Film (3)
FSW 365 Family Life Sexuality Education Across Cultures (3)
GEO/WMS 436 Women, Gender, and the Environment (3)
HST/WMS 250B Gender and Third-World Film (3) **
HST/WMS 381 Women in Pre-Industrial Europe (3)
HST/WMS 382 Women in American History (3)
HST 383 Women in Chinese History (3)
HST 393 Politics of Gender in Early North American History (3)
HST/WMS 400 Capstone in History (3) **
HST/WMS 450 Topics in Women's History (3)
ITS 201 Introduction to International Studies (3)
REL/WMS 333 Religion, Status, and Dress (3)
SOC 348 Race and Ethnic Relations (3)
SPN/WMS 180 Minority Writers in the U.S. (3)
WMS 309 Native American Women (3)
WMS 402 Engaged Learning Practicum (1-6)
WMS 410 Advanced Topics in Women's Studies (1-4)
WMS/BWS/ENG 437 Black Feminist Theory (3)

Women, social systems, and sexuality
ATH/BWS/LAS/WMS 325 Identity: Race, Gender, Class, Sexuality (3)
CLS/WMS 235 Women in Classical Antiquity (3)
ECO/WMS 370.N Women, Gender, and the Economy (3)
EDP/WMS 180J Girls Learning, Women Teaching (3)
ENG/WMS 180 Reading about Motherhood (3)
FSW 261 Diverse Families Across Life Cycles (3)
FSW/WMS 361 Couple Relationships: Diversity and Change (3)
FSW/BWS 362 Family Poverty (3)
FSW 365 Family Life and Sexuality Across Culture (3)
FSW/SOC/WMS 451 Family Violence (3)
HST/WMS 381 Women in Pre-Industrial Europe (3)
HST/WMS 382 Women in American History (3)
HST 383 Women in Chinese History (3)
KNH/WMS 243 Women's Health Care (3)
KNH/WMS 450K Nutritional Concerns of Women (3)
KNH/WMS 475 Women, Gender Relations, and Sport (3)
MGT/ECO/MKT/WMS 320P Women, Gender, and Business (3)
MKT/WMS 444
PHL/ENG 410 The Social Contract (4)
PHL/WMS 410 Psychoanalysis and Feminism (4)
POL/WMS 346 Women and Politics (3)
POL/WMS 347 Women and the Law (3)
PSY/WMS 326 Psychology of Women (3)
REL/WMS 333 Religion, Dress, and Status (3)
REL/WMS 335 Women in the Bible (3)
SOC/WMS 203 Sociology of Gender Roles (3)
SOC/WMS 221 Human Sexuality (3)
SOC/WMS 272 Women and Popular Culture (3)
SOC 361 Sociology of Families (3)
SOC/WMS 463 Sociology of the Older Woman (3)
WMS 202 Introduction to GLBT Studies (3)
WMS 383 By or About (Afro-) Brazilian Women (3)
WMS 402 Engaged Learning Practicum (1-6) ***
WMS 410 Advanced Topics in Women's Studies (1-4)
WMS/ENG 435 Queer Theory (3)*

Women, culture, and representation
ARC/WMS 405O Gender Constructions in Architecture (3)
ART 282 Art and Politics (3)
ART/WMS 480M Gender in Medieval Art (3)
ART/WMS 480W Feminist Art Histories (3)
BWS/WMS/ENG 432 Feminism and the Diaspora: U.S. Women of Color (3)*
CLS/WMS 235 Women in Classical Antiquity (3)
FST/ENG/WMS 350B Women in Film (3)
ENG/WMS 180 Reading about Motherhood (3)
ENG/WMS 232 American Women Writers (3)
ENG/WMS 233 British Women Writers (3)
ENG/WMS 368 Feminist Literary Theory and Practice (3) *
ENG/WMS 468 Gender and Genre (3)
FST/HST/WMS 250B Gender and Third-World Film (3) **
MKT/WMS 444 SocietyWise Experiential: Marketing in a Multicultural Society (4)
MUS/WMS 287 Enter the Diva: Women in Music (3)
PHL/WMS 355 Feminist Theory (4)
POR/WMS/BWS/ENG 383
REL/WMS 333 Religion, Dress, and Status (3)
REL/WMS 335 Women in the Bible (3)
RUS/WMS 258 Contemporary Russian Women's Writing (3)
SOC 272 Women and Popular Culture (3)
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature:
Feminist Perspectives (3)
WMS 402 Engaged Learning Practicum (1-6)***
WMS 410 Advanced Topics in Women's Studies (1-4)

* If this is used as a required theory course, it cannot count as an elective.
** Only those sections of HST 250 and 400 that are cross-listed with WMS count toward the major; consult with your adviser.

*** Practicum may be credited towards a Focus Area upon approval of WMS advisor

Zoology- Bachelor of Arts, Bachelor of Science

For information, contact the Department of Zoology, 212 Pearson Hall (513-529-3100).

Program Requirements: Bachelor of Arts

(32 semester hours)

Two of these:
ZOO 113 Animal Diversity (4) **or**
ZOO 115 Biological Concepts (4)
ZOO 114 Principles of Biology (4) **or**
ZOO 116 Biological Concepts (4)

Advanced courses requirement:
The remaining 24 semester hours must be in courses 200 level or above. No more than three semester hours of independent study courses (e.g., ZOO 320, 340, 277, 377, 419.R, 477) can be used. Only ZOO 320 and 419R may be taken for a letter grade.

No specific courses are required, but these are recommended:

ZOO 203 Cell Biology (3)
ZOO 209 Fundamentals of Ecology (3)
ZOO 305 Animal Physiology (4)
ZOO 342 Genetics (3)

Also recommended, one of these:
ZOO 311 Vertebrate Zoology (4)
ZOO 312 Invertebrate Zoology (4)
ZOO 361 Patterns in Development (4)
ZOO 401 Entomology (4)
ZOO 407 Ichthyology (4)
ZOO 408 Ornithology (4)
ZOO 409 Herpetology (4)
ZOO 410 Mammalogy (4)

One 400-level course recommended.

Related Hours (18 required)

One year of chemistry:
CHM 141, 142 College Chemistry (3, 3) **and**
CHM 144, 145 College Chemistry Laboratory (2, 2)

Remaining courses may be chosen from botany, chemistry, geography, geology, mathematics, microbiology, physics, psychology, statistics, and computer science and software engineering. A year of organic chemistry, a year of physics (with a lab), and a year of mathematics (including calculus and statistics) are highly recommended.

Program Requirements: Bachelor of Science
(36 semester hours)

All of these:
ZOO 113 Animal Diversity (4) **or**
ZOO 115 Biological Concepts (4)
ZOO 114 Principles of Biology (4) **or**
ZOO 116 Biological Concepts (4)
ZOO 203 Cell Biology (3)
ZOO 209 Fundamentals of Ecology (3)
ZOO 305 Animal Physiology (4)
ZOO 342 Genetics (3)

Advanced courses requirement
At least one 400-level course and additional advanced courses (200 level and above) in zoology to total 36 hours. No more than three hours of independent study courses (e.g., ZOO 320, 340, 277, 377, 419R, 477) can be used. Only ZOO 320 and 419R may be taken for a letter grade.

Related Hours (48 required)
All of these:
CHM 141, 142 College Chemistry (4, 3, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2)
CHM 231 Fundamentals of Organic Chemistry (4) and
CHM 332 Outlines of Biochemistry (4) or
CHM 241, 242 Organic Chemistry (3, 3) and
CHM 244, 245 Organic Chemistry Laboratory (2, 2)
PHY 171, 172 College Physics (3, 3) or
PHY 181, 182 The Physical World (4, 4)
PHY 183, 184 Introductory Physics Laboratory (1, 1)

At least eight semester hours of mathematics (including a calculus course and a statistics course)

An additional 8 to 14 semester hours from: botany, chemistry, geography, geology, mathematics (advanced hours—200 level or above), microbiology, physics, psychology, statistics (advanced hours—200 level or above), computer science and software engineering, and zoology (advanced hours—200 level or above).

Minors

In addition to majors, the College of Arts and Science offers minors. A minor is a specific program to be taken along with a major to complement your skills and increase your career opportunities. Taking a minor is optional.

A minimum 2.00 g.p.a. is required for all courses in the minor. Additional requirements and qualifications are included in the Other Requirements chapter. Students may use a minor to satisfy the Thematic Sequence requirement only if the minor is outside the department of major. Some programs offer certificates to students who successfully complete the program.

The required semester hours are in parentheses beside each minor.

Actuarial Science
(25 semester hours)

For information, contact the Department of Statistics, 311 Upham Hall (513-529-7828).

This minor is designed for students who are preparing for a possible career as an actuary. Courses in the minor may also be used to satisfy requirements of a major.

All courses in this minor must be taken for a grade, not credit/no-credit.

This minor satisfies the Thematic Sequence requirement of the Miami Plan for students majoring in the Departments of Mathematics and/or Statistics.

Program Requirements

Prerequisites:
Calculus, Multivariable Calculus, Linear Algebra. and Introductory Statistics
All of these:
ACC 221 Introduction to Financial Accounting (3)
ACC 222 Introduction to Managerial Accounting (3)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
FIN 301 Introduction to Business Finance (3)
STA 401 Probability (3)
STA 463 Regression Analysis (4)
STA 483 Analysis of Forecasting Systems (3)

Students are encouraged to select MTH 447 Mathematical Finance as an elective course that will enhance this program

Students in the Bachelor of Arts in Mathematics and Statistics may count at most two courses from STA 401, 463, or 483 toward the requirements of the major.

Aerospace Studies
(19 semester hours)

For information, contact the Department of Aerospace Studies, 50 Millett Hall (513-529-2031).

This minor is an interdisciplinary program open to all majors. It introduces students to the broad field of air and space service and provides specific information on the organization and operation of the United States Air Force.

Courses may not be taken on a credit/no-credit basis. A minimum 2.00 g.p.a. is required for all courses in the minor. If there is a specific Political Science (POL) 300 level regional course that a student would like to substitute for one of the listed POL courses, they may be substituted with the approval of the Aerospace Studies Chair.

Program Requirements

Required sequence (10 semester hours):
AES 121 The Foundations of the United States Air Force (1)
AES 122 The Foundations of the United States Air Force (1)
AES 221 The Evolution of USAF Air and Space Power (1)
AES 222 The Evolution of USAF Air and Space Power (1)
AES 332 Air Force Leadership Studies (3)
AES 432 National Security Forces in Contemporary American Society (3)

Note: AES 240 (4) may be taken for AES 121, 122, 221, 222 with permission of instructor.

One of these:
AES 331 Air Force Leadership Studies (3)
MGT 291 Organizational Behavior and Theory (3)
NSC 211 Leadership and Management (2)
NSC 401 Naval Leadership and Management (2)

At least one course in each of two different departments (min. six semester hours):
AES 431 National Security Forces in Contemporary American Society (3)
GEO 378 Political Geography (3)
GEO 408 Geography of the Silk Road (The Heart of Asia) (3)
HST 222 American Diplomacy (3)
POL 221 Modern World Governments (4)
POL 271 World Politics (4)
POL 328 Politics of Central Asia (3)
POL 332 Post-Soviet Russian Politics (3)
POL 339 Arab Nationalism In World Politics (3)

POL 373 American Foreign Policy (3)
POL 374 Comparative Foreign Policy (3)
POL 387 Comparative Security Issues (3)
POL 436 Politics of Iraq (3)

Aging and Health

(19 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

Students in any major may pursue this multidisciplinary minor. A minimum 2.00 g.p.a. is required for all courses in this minor and only GTY 440G Fieldwork in Gerontology may be taken on a credit/no-credit basis. Note prerequisites when selecting courses.

Program Requirements

All of these:
GTY 154 Aging in American Society (3)
GTY 356 Biopsychosocial Aspects of Health and Aging (3)
GTY 440G Field Experience in Gerontology (Capstone) (4)

At least one of these:
DST/GTY 335 Disability and Aging (3)
GTY/SOC 357 Medical Sociology (3)
GTY 478 Racial/Ethnic Disparities in Chronic Illness (4)
GTY 485 Long Term Care in an Aging Society (3)

Additional hours (to reach total of 19) from these:
GTY/SOC 318 Sociology of Aging and the Life Course (3)
GTY/BWS 472 Race, Ethnicity and Aging (3)
KNH 471 Sport, Leisure, and Aging (4)
PHL 375 Moral Issues in Health Care (4)
SOC 435 Sociology of Death (3)

Aging and Public Policy

(19 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

Students in any major may pursue this multidisciplinary minor. A minimum 2.00 g.p.a. is required for all courses in this minor and only GTY 440G Fieldwork in Gerontology may be taken on a credit/no-credit basis.

Program Requirements

All of these:
GTY 154 Aging in American Society (3)
GTY 365 Social Policy and Programs in Gerontology (3)
GTY 440G Field Experience in Gerontology (Capstone) (4)
GTY 485 Long Term Care in an Aging Society (3)

Two of these:
GTY/SOC 318 Sociology of Aging and the Life Course (3)
DST/GTY 335 Disability and Aging (3)
GTY/SOC 357 Medical Sociology (3)
GTY/BWS 472 Race, Ethnicity and Aging (3)
GTY/ATH 476 Environment and Aging (3)
GTY 478 Racial/Ethnic Disparities in Chronic Illness (4)

American Literature

(18 semester hours)

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

This minor offers students not majoring in English a chance to use elective hours to satisfy a personal interest, strengthen their degree, or enhance their career opportunities.

When you begin this minor, you must register with the chief departmental adviser for English and continue to check your progress with the adviser at least once a year until you complete this minor. Courses taken credit/no-credit will not count toward the 18 semester hours required for this minor. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

Six semester hours of introduction to American literature (ENG 141, 142, 143).

Three semester hours of theme or genre study in American literature from: ENG 232, 246, 248, 254, 271, 282, 283, 336, 337, 338, and 348.

Three semester hours of period study in American literature from: ENG 349, 352, 353, 354, and 355.

Six additional hours of advanced study from theme, genre, and period courses listed above. At least one of the advanced courses chosen for these last three categories must emphasize literature written before World War I: ENG 337, 349, 352, or 353.

American Studies

(22 semester hours)

For information, contact the Director of the American Studies Program (513-529-5333).

This interdisciplinary minor is open to all students and provides valuable context for majors from across the university including business, science, communication, education, and fine arts; it also complements well-established liberal arts fields such as political science, English, history and psychology. Focusing broadly on American culture and society, the minor fosters critical and creative thinking, interdisciplinary research skills, synthetic analytical skills, strong writing and oratory skills, an understanding of multiple kinds of media and texts, and a broad understanding of cultural and historical contexts—skills necessary to succeed in professional work in any field. Students take three core courses in American Studies and then work with the program director to develop an area of concentration that reflects their specific intellectual interests This allows students to individually tailor the minor to support work they are doing in their major field.

Program Requirements

All of these:
AMS 205 Introduction to American Studies (3)
AMS 206 Approaches to American Culture (3)
AMS 301 Practice in American Studies (3) **or**
AMS 302 United States and the World (3)

American Culture Focus:
With the approval from the program director, choose 9 additional semester hours from AMS courses cross-listed with other departments or courses examining U.S. society and culture offered by other departments.

Anthropology

(18 semester hours)

For information, contact the Department of Anthropology, 120 Upham Hall (513-529-8399).

This minor combines well with many different majors and is designed for students who wish to add a cross-cultural dimension to their education. It is especially appropriate for those who are planning professional careers in areas such as international studies and foreign service, international business, medicine, dentistry and other health fields, and education.

Students planning to take this minor should inform the chief departmental adviser and formally declare this minor. A minimum g.p.a. of 2.00 is required for all courses in the minor. These courses must be taken for a grade, not credit/no-credit. This minor is not open to an anthropology major.

Program Requirements

This one:
ATH 155 Introduction to Anthropology (4)

Two of these:
ATH 212 Introduction to Archaeological Theory and Methods (3)
ATH 231 Perspectives on Culture (3)
ATH 255 Foundations of Biological Anthropology (3)
ATH 265 Language and Culture (3)

Additional anthropology courses:
300-level or above to total at least 18 semester hours

Note: Only four credits of field method courses (ATH 351, 415, and 426) count toward the 18 hours needed for the minor.

Applied Sociological Research

(19 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

This minor emphasizes the research aspect of sociology. It is for students planning research-oriented careers in organizational settings. Through course work and field experience, students become familiar with various aspects of research methodology and organizations.

This minor requires completion of approved courses and fieldwork placement. A maximum of four semester hours of field placement can be counted toward this minor; if you take SOC 260A for the fieldwork course, you must take it for four semester hours.

With the exceptions of SOC 151 and SOC 152, sociology courses taken for this minor may not be used to fulfill requirements for the sociology major. The research methods course (SOC 262) may be used to meet requirements for the major or the minor, but not both.

All courses listed below are prerequisite for a field placement. A g.p.a. of 2.50 and permission of instructor is required before a field placement may be taken.

Program Requirements

All of these:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 262 Research Methods (4)
SOC 417 Economy and Society (3) **or**
SOC 454 Formal Organizations (3)
SOC 462 Applied Sociological Research (3)
STA 261 Statistics for Social Science (4)
SOC 260A Internship: An Introduction to Applied Sociology and Human Services (1-4) **or**
SOC 440A Applied Field Experience (4-16)

Black World Studies

(18 semester hours)

For information, contact the director of Black World Studies, 120 MacMillan Hall (513-529-1235).

Black World Studies (BWS) is an interdisciplinary program that offers a unique opportunity for all undergraduate students to gain a better understanding of the historical, social, religious, cultural political experiences, values and expressions of Africans and people of African descent in the U.S. and throughout the world. Moreover, the study of black people and black experience may better prepare all students to cope with the ever-increasing demands of a multicultural world. This program stresses critical thinking, reflection, and informed action.

A minimum g.p.a. of 2.00 is required for all courses in the minor.

Program Requirements

Take these two:
BWS 151 Introduction to Black World Studies (4)
BWS 156 Introduction to Africa (4)

Take a minimum of two courses each from Areas A and B (total of four courses) and a minimum of one course from Area C or D:

Area A. African Experiences and Cultures
Two of these:
ART 235 The Gods Are Here (3)
ART 480 Seminar in African Art (3)
ATH 329 Religions of Africa (3)
BOT 496 Biodiversity of Kenya (5)
BWS/GEO/HST/REL 209 Civilizations of Africa (3)
BWS/HST 224 Africa to 1884 (3)
BWS/HST 225 The Making of Modern Africa (3)
BWS/FST 267 National Cinema: African Film (3)
BWS/GEO 301 Geography of Sub-Saharan Africa (4)
BWS/CLS 310E Conflict in Greco-Roman Egypt (3)
BWS 324/HST 325 Images of Africa (3)
BWS 339/POL 338 Contemporary African Politics (3)
BWS/ATH 366 African Oral Traditions (3)
BWS 370 Selected Topics: Black World Studies (3)
BWS/POL 370B African Politics and Society Through Literature (3)
BWS/ENG/FST/POR 381 African Lusophone Literature (3)
BWS/ENG 450A Studies in Genre: The African Novel (3)
BWS/HST 495 Modern African Environmental History (3)
BWS/HST 496 Africa in the 20th Century: Decolonization and Independence (3)
HST 444 Ancient Egypt (3)
POL 438 Africa in the Global Economy (3)

Area B. African American Experience and Cultures
Two of these:
BWS/HST 221 African American History (3)
BWS 250C African American Education (3)
BWS/KNH 279 African Americans in Sports (3)
BWS/KNH 292 Dance, Culture, and Contexts (3)
BWS/ENG 336 African American Writing 1746-1877 (3)
BWS/ENG 337 African American Writing 1878-1945 (3)
BWS/ENG 338 African American Writing 1946-Present (3)
BWS/HST 365 Civil War and Reconstruction Era (3)
BWS/HST 395 The American South to 1877 (3)
BWS/HST 396 The American South Since 1877 (3)
BWS/SOC 448 The African American Experience (3)
ENG 271 Cultures and Literatures of the American South (3)
ENG 348 Ethnic American Literatures (3)
HST 329 Lynching in America 1865-1940 (3)
ATH/MUS 135 Understanding Jazz, Its History and Context (3)
ATH/MUS 285 The Roots of Black Music: Blues, Gospel, and Soul (3)
ATH/MUS 386 The History and Development of Hip Hop Culture in America (3)
REL 343 African American Religions (3)

Area C. Afro-Latin and Afro-Caribbean Experiences
One of these:
BWS/POR 383 By or About (Afro-) Brazilian Women (3)
BWS/LAS 415 Cuba in Revolution: Its History, Politics, and Culture (4)
ENG/LAS 254 Latin American Literature (3)
GEO 405 The Caribbean in Global Context (3)
GEO 461 Migrants and Diasporas (3)
GEO 473 Development and Underdevelopment (3)
GEO 475 Global Periphery's Urbanization (3)

Area D. Perspectives on Gender, Race, Class, and Ethnicity
One of these:
BWS/CLS 210R Race and Ethnicity in Antiquity (3)
BWS/ATH 325 Identity, Race, Gender, Class (3)
BWS 326 Islam in History (3)
BWS/SOC 348 Race and Ethnic Relations (3)
BWS/FWS 362 Family & Poverty (3)
BWS/WMS 370E Feminism and Diaspora: U.S. Women of Color (3)
BWS 380J Black Atlantic: Crosscurrents of Resistance (3)
BWS/HST 386 Race in U.S. Society (3)
BWS/WMS 410A/ENG 470A Black Feminist Theory (3)
BWS/ARC 427 The American City Since 1940 (3)
BWS 433 African American Psychology (3)
BWS/SOC 448 The African American Experience (3)
BWS/GEO 455 Race, Urban Change, and Conflict in America (3)
BWS 470 Social and Political Activism (3)
BWS/GTY 472 Minority Aging (3)
BWS 492 African and African American Sexuality (3)
KNH 386 African Americans and Health Issues (3)
POL 142 American Politics and Diversity (4)
POL 326 Comparative Ethnic Politics (3)
PSY 325 Psychology of Prejudice and Minority Experience (3)
REL 241 Religions of the American People (4)
SOC 372 Social Stratification (3)
SOC 490 Critical Race Theory
WMS 370A Black Women Writers (3)

Botany

(18 semester hours)

For information, contact the Department of Botany, 316 Pearson Hall (513-529-4200).

Courses for this minor must be taken for a grade and your accumulated g.p.a. must be greater than 2.00. Advanced courses must represent at least 14 hours of the total 18. If you plan to take a minor in botany, please consult with the chief departmental adviser.

Program Requirements

These courses:
BOT 115,116 Biological Concepts (4, 4) **or**
BOT 191 Plant Biology (4)
BOT 203 Introduction to Cell Biology (3)
BOT 203L Plant Cell Biology Laboratory (1) **or**
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)

Select course from the following to total a minimum of ten hours:
BOT 203 Introduction to Cell Biology (3)
BOT 203L Plant Cell Biology Laboratory (1)
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)
BOT 205 Dendrology (4)
BOT 209 Fundamentals of Ecology (3)
BOT 255 Introduction to Biotechnology (3)
BOT 302 Plant Taxonomy (4)
BOT 312 Plant and Fungal Diversity (4)
BOT 342 Genetics (3)
BOT 401 Plant Ecology (3)
BOT 402 Plant Anatomy (3)
BOT 403 Plant Development (3)
BOT 409 Morphology of Vascular Plants (4)
BOT 415 Techniques in Plant Biotechnology (3)
BOT 421 Advanced Mycology (3)
BOT 425 Environmental Plant Physiology (4)
BOT 431 Global Plant Diversity (3)
BOT 432 Ecoregions of North America (3)
BOT 466 Bioinformatics Computing Skills (3)
BOT 499A Tropical Flora of the Bahamas (4)

Chinese

(18 semester hours)

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This minor offers students substantial language training and fundamental cultural understanding. Three years course work or the equivalent training in language gives students adequate skills for daily communication and some tools for handling more sophisticated materials. Literature and culture courses provide students with knowledge of traditional and modern Chinese world views and social realities.

Chinese language and culture and literature credits transferred to Miami from other institutions may be used to fulfill the requirements. The courses must be passed with a 2.00 g.p.a. Courses taken on a pass/non-pass basis may not be applied to the minor.

Program Requirements

Four of these (12 semester hours):
CHI 201 Second Year Chinese (3)
CHI 202 Second Year Chinese (3)
CHI 301 Third Year Chinese (3)
CHI 302 Third Year Chinese (3)
CHI 401 Fourth Year Chinese (3)
CHI 402 Fourth Year Chinese (3)

Two of these (6 semester hours):
CHI 251 Traditional Chinese Literature (3)
CHI 252 Modern Chinese Literature (3)
CHI 253 Three Kingdoms (3)
CHI 254 Modern Chinese Autobiography (3)
CHI 255 Drama in China and Japan (3)
CHI 264 Chinese Cinema and Culture (3)
CHI 277W Chinese Culture Live (3)
CHI 401,402 Fourth Year Chinese (if not used for language hours) (3, 3)

Other courses not listed above may count toward the minor, including honors courses and one-time offerings with the approval of the Chinese Program adviser.

Classical Humanities

(18 semester hours)

For information, contact the Department of Classics, 105 Irvin Hall (513-529-1480).

This minor offers students the opportunity to become acquainted with the rich spectrum of classical literature, language, art, and civilization. A minimum 2.00 g.p.a. is required for all courses in the minor. These courses must be taken for a grade, not credit/no-credit.

Program Requirements

Two of these:
CLS 101 Greek Civilization in its Mediterranean Context (3)
CLS 102 Introduction to Roman Civilization (3)
CLS 121 Classical Mythology (3)

Three semester hours of classical literature and language selected from: CLS 211, 212, 213, 214, 215, 310R, 316, 317, 331, 333 334; or any other approved course in classical literature; or any Greek course except GRK 101, 102; any Latin course except LAT 101, 102, 201, 321.

Three hours in classical civilization selected from: CLS 210A, 210R, 216, 232, 235, 244,309, 310I, 321; ART 381, 382, 383; or any other approved course in classical civilization.

Six additional hours selected from the last two groups.

Classical Languages

(18 semester hours)

For information, contact the Department of Classics, 105 Irvin Hall (513-529-1480).

This minor offers students the opportunity to explore the language and culture of ancient Greece and Rome through the study of one or both ancient languages. A minimum 2.00 g.p.a. is required for all courses in the minor. These courses must be taken for a grade, not credit/no-credit.

Note: Either GRK 102 or LAT 102 may be counted toward the minor, provided you have taken advanced coursework in the other language.

Program Requirements (18 hours chosen from the following):

LAT 201 Intermediate Latin (3)
LAT 202 Representative Latin Authors (3)
LAT 310 Special Topics in Latin Literature (3; maximum 12; may be repeated when content changes)
LAT 410 Latin Seminar (3; maximum 12)
LAT 404 Medieval Latin (3)
GRK 201 Homer (3)
GRK 202 Plato (3)
GRK 301 Advanced Readings in Representative Authors (3)
GRK 302 Advanced Readings in Representative Authors (3)
GRK 310 Special Topics in Greek Literature (3; maximum 12; may be repeated when content changes)
GRK 410 Special Topics in Greek Literature (3; maximum 12; may be repeated when content changes)

Communication

(18 semester hours)

The minor in communication is selective and enrollment is limited. For information contact the Department of Communication, 162 Bachelor Hall (513-529-7472).

It offers students the opportunity to learn how human beings create meaning, develop relationships, achieve goals, and create community through human communication behavior. The role of

communication in contexts such as interpersonal relationships, small groups, organizations, the public realm, and media is explored.

Program Requirements

Required course
COM 143 Introduction to Mass Communication (3)

At least one of these:
COM 134 Introduction to Speech Communication (3)
COM 135 Public Expression and Critical Inquiry (3)
COM 136 Introduction to Interpersonal Communication (3)

Take 12 hours from the following (at least six hours must be at 300/400 level):
COM 215, 231, 239, 247, 259, 262, 281, 282, 332, 335, 336, 339, 341, 353, 354, 355, 389, 417, 426, 428, 431, 434, 436, 437, 438, 439, 441, 443, 445, 446, or 450.

Criminology

(20-50 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

This minor focuses on the sociology of crime, adult offenders, including an orientation to the social scientific study of crime, a critical examination of institutions in the criminal justice system, and a consideration of recent trends in the study of crime. A crucial element of the minor is the completion of an internship in an agency, program, or institution within the criminal justice system. Students may major in any field and are encouraged to apply regardless of their major course of study.

Students must apply in the Sociology and Gerontology Office before spring break of their sophomore year for admission to the minor or thematic sequence. Prerequisites for application are completion of SOC 151 or 152 and a minimum overall g.p.a. of 2.50. Because the required courses are sequentially related, and space is limited, students may need instructors' permission to register for Criminology (SOC 352), Systems of Justice (SOC 409), Topics in Criminology (SOC 410), and Juvenile Delinquency (SOC 413).

Program Requirements

Select track one or track two for your program.

Track one: For the non-sociology major (20-21 semester hours)

Required. All of these in this order:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 352 Criminology (3)
SOC 409 Systems of Justice (3)
SOC 440C Field Experience (4-16)*

* Only 4 semester hours of field placement may count toward the sociology major and/or criminology minor.

One of these:
SOC 410 Topics in Criminology (3)
SOC 413 Juvenile Delinquency (3)

Electives. Minimum three semester hours from these:
SOC 201 Social Problems (4)
SOC 202 Social Deviance (4)
SOC 348 Race and Ethnic Relations (3)
SOC 372 Social Stratification (3)
SOC 411 Social Conflict (3)
SOC 412 Sociology of Law (3)
SOC 417 Economy and Society (3)
SOC 451 Family Violence (3)

Track two: For the sociology major (50 semester hours)

Complete 36 semester hours of sociology, including required courses for the major and all of the requirements for the criminology minor listed above. A minimum total of 50 semester hours in sociology is required for a combined sociology major and criminology minor.

Digital Game Studies

(18 semester hours)

For information, contact the Interactive Media Studies Program, 2045 FSB (513-529-1637).

The Digital Game Studies Minor has a collaborative series of courses between the Interactive Media Studies program and the Departments of English, Art, and Computer Science. The minor introduces the student to the foundations of game design and implementations. Courses within the minor are divided into three major categories designed to introduce the student to the broad areas of expertise required to produce a state of the art game or visual simulation. After category 1, students choose a specialty track in either Game Art and Design, Game Studies or Game Development.

Program Requirements

Category 1: Complete the following sequence (6 hours)
IMS 211 Introduction to Game Studies (3)
IMS 212 The Design of Play (3)

Category 2: Complete a single track (9 hours)

Game Art and Design Track
IMS 319 Foundations in Digital 3D Modeling and Animation (3)
IMS/ART 359 Interactive Programming with ActionScript (3)
IMS 487 Game Prototyping, Pipeline and Production (3)

Applied Game Studies Track
IMS 225 Games and Learning (3)
IMS/ENG 238 Narrative and Digital Technology (3)
IMS 487 Game Prototyping, Pipeline and Production (3)

Game Development Track (non-Computer Science majors)
CSE 251 Introduction to Game Programming (3)
IMS 259 Aesthetics and Computation (3)
IMS 487 Game Prototyping, Pipeline and Production (3)

Game Development Track (Computer Science majors)
CSE 274 Data Abstraction and Data Structures (3)
CSE 386 Introduction to Computer Graphics (3)
CSE 487 Game Design and Implementation (3)

Category 3: Complete the following (3 hours):
IMS 445 Game Design (3)

Disability Studies

(18 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

This minor offers a broad liberal arts approach to the study of disability. It provides students with knowledge of the historical, social, artistic, literary, legal, educational, philosophical and political framing of disability. Students develop a strong interdisciplinary foundation, with emphasis on cultural constructions of disability, and the intersections of disability, race, gender, sex, age, class and other markers of diversity and difference. Students have the opportunity to enhance this foundation by extending their learning into the community through the senior capstone internship and/or independent research requirement.

Program requirements (18 hours total)

Take the foundation course, no more than two additional courses at the 100-200 level and the capstone experience.

Both of these:

Foundation course:
DST/EDP/SOC 272 Introduction to Disability Studies (3)

Capstone course:
COM/DST/ENG/SOC/SPA 494 Disability in Global and Local Contexts (3)
EDP 489 Disability in Global and Local Contexts (3)

Choose no more than two 100-200 level courses*:*
COM/DST 247 Rhetoric of Disability Rights (3)
DST/ENG 169 Disability Identity (3)
DST/EDP/SOC/WMS 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)
DST/SPA 211 Deaf Culture and Community (3)
DST/SPA 212 Deaf Culture: Global, National and Local Issues (3)

Remaining hours at the 300-400 level for the DST minor:
DST/ENG 329 Disability Poetics and Narrative Theory (3)
DST/GTY 335 Disability and Aging (3)
DST/EDP/SOC/WMS 375 (Dis)Ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)
COM/DST/EDP/SOC/WMS 378 Media Illusions: Creations of "The Disabled" Identity (3)

East Asian Studies

(18 semester hours)

For information, contact the program adviser in the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This interdisciplinary program is open to all majors. It introduces students to cultures of East Asian countries, including art, literature, history, geography, religion, sociology, economics, and political systems.

Program Requirements

Language Proficiency

You must attain a second-year language proficiency in either Chinese or Japanese. Completion of CHI 202 or JPN 202, or higher level of courses will fulfill this requirement. Contact the program adviser for proficiency assessment if necessary.

Course Requirements
Select courses from Group I and II.

Group I (200 level)
Six semester hours from East Asia (see below)
(or three hours from East Asia and three hours from Related Courses):

ART 286 China, Korea, Japan (3)
ART/JPN 279 Buddhism and Culture: China and Japan (3)
ATH/GEO/ITS/POL/SOC 208 The Rise of Industrialism in East Asia (3)
CHI 251 Chinese Literature in English Translation (3)
CHI 252 Modern Chinese Literature in English Translation (3)
CHI 253 Three Kingdoms (3)
CHI 254 Modern Chinese Autobiography (3)
CHI/JPN 255 Dramas in Japan and China in Translation (3)
CHI/FST 264 Chinese Cinema and Culture (3)
CHI 277W Chinese Culture Live (1-3)
JPN 231 Japanese Tales of the Supernatural in English Translation (3)
JPN 260 Topics in Japanese Literature in English Translation (3)
JPN 266 Survey of Japanese Cinema (3)
REL 202 Religions of Asia (3)

Related Courses
ART 185 India and Southeast Asia (3)
PHL 106 Thought and Culture of India (4)

Group II (300-400 level)
Twelve semester hours from East Asia, China, or Japan; or twelve semester hours from a combination of the areas:

East Asia
GEO 308 Geography of East Asia (3)
POL 335 Politics of China and Japan (3)
POL 375 International Relations of East Asia (3)
REL 324 Buddhism in East Asia (3)

China
ART 311 Chinese Painting History (3)
GEO 410D Regional Analysis of China (1-4)
HST 353 History of Chinese Civilization (3)
HST 354 Modern Chinese History (3)
HST/WMS 383 Women in Chinese History (3)
HST 400.6 Senior Capstone: Asian History (3)
HST 434 China and the Silk Road (3)

Japan
ARC 428 Japanese Architecture (3)
ART 312 Japanese Painting and Prints (3)
HST 356 Modern Japanese History (3)
JPN 401 Japanese Culture and Society in Contemporary Texts I (3)
JPN 402 Japanese Culture and Society in Contemporary Texts II (3)
SOC 408 Contemporary Japanese Society (3)

Related course:
AAA/G 369 Colonial and Post-Colonial Literatures of South Asia (3)
GEO 408 Geography of the Silk Road (3)
POL 328 Politics of Central Asia (3)
REL 323 Buddhism in India and South Asia (3)

Other courses, including one-time offerings, and honors and summer workshop courses may count toward this minor. For approval, contact the program adviser.

Economics

(18 semester hours)

For information, contact the Department of Economics, 2054 Farmer School of Business (513-529-2836).

This minor is designed for students who are interested in exploring how their major area of specialization connects to the wider world of the workplace and the economy. Students who are preparing for law school or a master's degree in business administration (M.B.A.) program will find this minor valuable.

The 18 hours of Economics must be completed with at least a 2.00 g.p.a. Either ECO 315 or 317 must be taken at Miami.

Program Requirements

ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
ECO 315 Intermediate Microeconomic Theory (3) **or**
ECO 317 Intermediate Macroeconomic Theory (3)

Nine additional hours of advanced economics (300 level or above), which may include the other intermediate theory course.

English Literature

(18 semester hours)

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

This minor offers students not majoring in English a chance to use their elective hours to satisfy a personal interest, to strengthen their degree, or to enhance their career opportunities.

When you begin this minor, you must register with the chief departmental adviser, and you must check your progress with the adviser at least once a year until you complete the minor. Courses taken credit/no-credit will not count toward the minor. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

Six semester hours of introduction to English literature (ENG 131, 132, 133).

Three semester hours in the study of a major English author from these:
ENG 372, 373, or 440 (when topic is appropriate).

Three semester hours of theme or genre study in English literature from these:
ENG 233, 261, 281, 283, 284, 0r 490 (when topic is appropriate).

Three semester hours of period study in English literature from these:
ENG 327, 328, 331, 334,335, 339, 342, 343,344, 345, or 347.

Three additional hours of advanced study from the last three categories above.

Ethics

(19 semester hours)

For information, contact the Department of Philosophy, 212 Hall Auditorium (513-529-2440).

The department occasionally offers courses in special topics appropriate to this minor. These may be substituted by petition for any of the courses listed in the second group.

Program Requirements

Both of these:
PHL 131 Problems of Moral and Social Values (3)
PHL 311 Ethical Theory (4)Three of these:
PHL 312 Contemporary Moral Problems (4)
PHL 331 Political Philosophy (4)
PHL 335 Philosophy of Law (4)
PHL 355 Feminist Theory (4)
PHL 360A Confronting Death (4)
PHL 375 Moral Issues in Health Care (4)
PHL 376 Environmental Philosophy (4)
PHL 475 Justice in Healthcare (4)

European Area Studies

(18 semester hours)

For information, contact the European area studies adviser Dr. Margaret Ziolkowski, 164 Irvin Hall (513-529-1853).

This minor, open to all students in the university, introduces the European region from multiple perspectives of humanities, social sciences, and fine arts. It provides students at Miami's campuses, including the John E. Dolibois European Center (MUDEC) in Luxembourg or other European programs, with a framework for integrating their studies into the overall curriculum at Miami. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements*

Both of these:
HST 122 Western Civilization (3) **or**
a modern European history course
GEO 311 Geography of Western Europe (4) **or**
another European geography course

One of these:
POL 333 Politics of Western Europe (4) **or**
another course in West European politics
POL 332 Post-Soviet Russian Politics (4) **or**
another course in Russian or East European politics
ECO 341 Economic History of Modern Europe (3)

One course in each category:
A modern European culture course from literature, art, architecture, music, theatre or cinema (3)

A modern European language course at the 300- level or above, taught in that language (3)

An additional Europe-focused course to reach a total of 18 semester hours.

The European Studies Adviser must approve all selected courses.

* Appropriate courses taken in European study abroad programs, including MUDEC, may be substituted for above courses with the approval of the European Area Studies adviser.

Film Studies

(18 semester hours)

For information, contact program adviser in the Department of History, 250 Upham Hall (513-529-5121).

This interdepartmental minor integrates courses that treat film as a major art form or that use film as a specific and unique analytical device in the study of literature, history, arts, or national cultures. It offers a broad introduction to importance and influence of film, variety of film studies methodologies, and history and criticism of the modes of cinema across the world.

Program Requirements

These two:
FST 201 Introduction to Film Criticism and History (3)
FST 401 Seminar in Film Study (3)

Twelve semester hours from these:
ENG/COM 422 Creative Writing: Screenwriting (3)
FST/COM 146 Media Aesthetics (3)
FST/COM 205 American Film as Communication (3)
FST/COM/IDS 206 Diversity and Culture in American Film (3)
FST/ENG 220 Literature and Film (3; maximum 6)
FST/ENG 221 Shakespeare and Film (3)
FST/ENG 235 Classics of Film (3)
FST/ENG 236 Alternative Traditions in Film (3)
FST/HST 250 History and Popular Culture (3)*
FST/HST 252 Representations of History in Film and Video (3)
FST/GER 261 Survey of German Cinema (3)
FST/ITL 262 Italian Cinema (3)
FST/RUS 263 Soviet and Post-Soviet Russian Cinema (3)
FST/CHI 264 Chinese Cinema and Culture (3)
FST/FRE/GER 265 European Jewish Cinema (3)
FST/JPN 266 Survey of Japanese Cinema (3)
FST/HST 302 War and European Cinema (3)
FST/ENG 350 Topics in Film (3; maximum 6)
FST/FRE 366 French Cinema (3)
FST/LAS 415 Cuba in Revolution (3)
FST/FRE 460 Topics in French Cinema Study (3)
HST 251 Gender and Third World Film (3)
PHL 241 Aesthetics (4)
PHL 410 Special Topics (1-4)*
POL 220 Movies and Politics (2)

* Applies when topic is film-related.

French

(18 semester hours)

For information, contact the Department of French and Italian, 207 Irvin Hall (513-529-7508).

This minor provides direction, coherence, and recognition in French studies for non-majors. It is designed to expand your area of interest and expertise and to broaden your career options. Students are encouraged to participate in the Department's summer programs abroad.

You must accumulate 18 semester hours at 200 level or above and maintain a 2.50 g.p.a. No courses in translation count toward the minor; all courses must be taken for a grade, not credit/no-credit. You must plan your program with an adviser.

Geography

(18 semester hours)

For information, contact the Department of Geography, 216 Shideler Hall (513-529-5010).

This minor provides training in the interpretation of geographic data and geographic (spatial) analytical techniques that should form a strong complement for students with majors in other physical and social sciences. We recommend a minor in geography for students who want to know the world better and want to apply that broader perspective to effective local action in their special areas of expertise.

A minimum 2.00 g.p.a. is required for all courses in the minor. No courses may be taken credit/no-credit. This minor is not available to majors in geography.

Program Requirements

Select an emphasis from one of these three areas for your program.

Comparative urban-economic emphasis
GEO 101 Global Forces, Local Diversity (3)
GEO 201 Geography of Urban Diversity (3)
GEO 211 Global change (3)
Tool course (2-4)*

Additional advanced urban-economic geography courses to make up required 18 semester hours*

Environmental change emphasis
GEO 121 Earth's Physical Environments (4)
GEO 211 Global Change (3)
GEO 221 Regional Physical Environments (3)
Tool course (2-4)*

Additional advanced environmental change courses to make up required 18 semester hours*

Global (international) development emphasis
GEO 101 Global Forces, Local Diversity (3) **or**
GEO 111 World Regional Geography: Patterns and Issues (3)
GEO 211 Global Change (3)
Tool course (2-4)

Additional advanced global development courses to make up required 18 semester hours*

*Contact the department for a list of courses that count for each emphasis.

Geology

(18 semester hours)

For information, contact the Department of Geology, 114 Shideler Hall (513-529-3216).

A minimum g.p.a. of 2.25 is required for all courses in the minor. No courses may be taken credit/no-credit. This minor is not available to majors in geology, earth science, environmental earth science or earth science education. Courses must be selected observing all prerequisites. Substitutions may be made with approval of department.

Program Requirements

One of these:
GLG 111 The Dynamic Earth (3)
GLG 121 Environmental Geology (3)
GLG 141 Geology of U.S. National Parks (3)

This laboratory:
GLG 115L Understanding the Earth Lab (1)

Also required:
Complete the 18 semester hours with courses at 200 level or above. One course must be at 300 level or above.

German

(18 semester hours)

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

All courses in German (except those offered only credit/no credit) must be taken for a grade. You must coordinate your program with a department adviser. This minor consists of courses above the 100 level.

Program Requirements

Choose one course from each group:

Language skill
GER 301 Advanced German Composition and Conversation (3)

Literature
GER 311 Passionate Friendships in German Literature and Culture (3)
GER 312 Coming of Age in German Literature and Thought (3)

Culture
GER 321 Cultural Topics in German-Speaking Europe (3)
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S.A. (3)

Grammar/linguistics
GER 471 Linguistic Perspectives on Contemporary German (3) **or** one GER course at 400 level or higher

Also required:
Remaining hours selected from courses at 200 level or above, excluding courses taught in English translation.

Gerontology

(19 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

Students in any major may pursue this multidisciplinary minor. A minimum 2.00 g.p.a. is required for all courses in this minor, and only GTY 440G Fieldwork in Gerontology may be taken on a credit/no-credit basis. Note prerequisites when selecting courses.

Program Requirements

All of these:
GTY 154 Aging in American Society (3)
GTY 365 Social Policy and Programs in Gerontology (3)
GTY 440G Field Experience in Gerontology (Capstone) (4)

One of these:
GTY 260 Global Aging (3)
GTY/SOC 318 Sociology of Aging and the Life Course (3)
GTY/BWS 472 Race, Ethnicity and Aging (3)

Two of these:
DST/GTY 335 Disability and Aging (3)
GTY 356 Biopsychosocial Aspects of Health and Aging (3)
GTY/SOC 357 Medical Sociology (3)
GTY 375 Aging, Self and Society (3)
GTY/SOC/WMS 463 Gender and Aging (3)
GTY/FSW 466 Families in Later Life (3)
GTY/ATH 476 Environment and Aging (3)
GTY 485 Long Term Care in an Aging Society (3)
SOC 435 Sociology of Death (3)

Global Perspectives on Sustainability

(19 semester hours)

For information, contact the Institute for Environmental Science, 102 Boyd Hall (513-529-5811).

This interdisciplinary minor introduces students to the foundations of environmental sustainability and its complexities with an emphasis on the approaches taken by people living under different geographic and economic conditions. Of special importance in this minor is increasing student understanding of the issues and problems faced by the majority of global citizens who live in less industrial or less economically developed parts of the world.

Program Requirements

Background courses (take one from each category):

Category I: Natural Science (minimum of three hours)
BOT 131 Plants, Humanity, and the Environment (3)
BOT/CHM/GEO/GLG/MBI/MTH/STA/ZOO 275 Principles of Environmental Science (3)
GEO 271 Human Dimensions of Natural Resource Conservation (3)
GLG 121 Environmental Geology (3)
GLG 307 Water and Society (3)

Category II: Business (minimum of three hours)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
ECO 434 Environmental Economics (3)
MKT 291 Principles of Marketing (3)

Category III: Political/Social Science (minimum of three hours)
ATH 175 Peoples of the World (3)
ITS 201 Introduction to International Studies (3)
POL 270 Current World Problems (3)
POL 271 World Politics (4)

Sustainability and Environmental Foundations (minimum of three hours)
ATH 455 Heredity, Environment, and Human Society (3)
BOT/BUS/GEO/GLG/ZOO 494 Sustainability Perspectives in Resources and Business (3)
GEO 436 Women, Gender, and the Environment (3)
GEO 473 Development and Underdevelopment (3)
IES 431 Principles and Applications of Environmental Sciences (3)
PHL 376 Environmental Philosophy (4)

Advanced courses (minimum of three hours)
ATH 305, 307; BWS 330, 362; GEO 301, 304, 405, 472, 475; HST 343, 495, 496; ITS 302; POL 335, 336, 337, 338, 346, 378, 386; ZOO 467

Field courses or internship (minimum of four hours)

History

(18 semester hours)

For information, contact the Department of History, 254 Upham Hall (513-529-5121).

If you are not majoring in history, this minor is an opportunity for you to satisfy an interest, strengthen your degree, and enhance your preparation for a career or further education.

A minimum 2.00 g.p.a. is required for all courses in the minor. These courses must be taken for a grade (not credit/no-credit).

Program Requirements

Six semester hours (two introductory survey courses; need not be in sequence) from these:
HST 111, 112 Survey of American History (3, 3)
HST 121, 122 Western Civilization (3, 3)
HST 197, 198 World History (3, 3)

Remaining 12 semester hours must be history courses at the 200 level and above.

History of Philosophy

(19 semester hours)

For information, contact the Department of Philosophy, 212 Hall Auditorium (513-529-2440).

The department occasionally offers courses in special topics appropriate to this minor. These may be substituted by petition for any course listed in the second group.

Program Requirements

One of these:
PHL 103 Society and the Individual (3)
PHL 104 Purpose or Chance in the Universe (3)
PHL 105 Theories of Human Nature (3)

Both of these:
PHL 301 Ancient Philosophy (4)
PHL 302 Modern Philosophy (4)

Two of these. At least one must be 400 level:
PHL 390 Existentialism (4)
PHL 402 19th Century Philosophy (4)
PHL 430 Seminar in Ancient or Medieval Philosophy (4)
PHL 440 Seminar in Modern Philosophy (4)
PHL 460 Seminar in Marxism (4)

Horticultural Botany

(19 semester hours)

For information, contact the Department of Botany, 316 Pearson Hall (513-529-4200).

This minor gives you a general understanding of horticulture and related fields. It is open to all students; however, for students working on the A.B. in botany, only BOT 115, 116, or 191 can count for both the major and this minor, and for students working on the B.S. in botany, only BOT 115, 116, 191, and 425 can count for both.

Courses used for this minor cannot be used for the minor in botany, except for BOT 115, 116, or 191. College chemistry is recommended for this minor. A minimum 2.00 g.p.a. is required for all courses in the minor; no courses for the minor may be taken credit/no-credit.

Program Requirements

One of these:
BOT 115 and 116 Biological Concepts (4, 4) or
BOT 191 Plant Biology (4)

This one:
BOT 306 Basic Horticulture (3)

Four of these:
BOT 221 Plant Propagation (4)
BOT 241 Botanical Principles in Landscape Gardening (3)
BOT 302 Plant Taxonomy (4) **or**
BOT 205 Dendrology (4)
BOT 312 Plant and Fungal Diversity (4) **or**
BOT 421 Advanced Mycology (4)
BOT 340 Internship in Botany (1-16)
BOT 415 Techniques in Biotechnology (3)
BOT 425 Environmental Plant Physiology (4)

Interactive Media Studies

(19 semester hours minimum)

For information, contact the director of the Center for Interactive Media Studies, 2045 FSB (513-529-1637).

The minor in interactive media studies introduces the student to digital media and allows them to examine their chosen major from a new perspective. It provides students with a framework for integrating a broad understanding of interactive media balanced with a more specific focus on disciplinary tracks. A 3.00 g.p.a. and successful completion of the Entrance Examination is required for admittance into the minor.

There are four tracks within the minor that allow students to focus their experience on a particular area of interactive media, and to better complement their disciplinary area of focus. These tracks include art/design, business, humanities, and self-designed.

For a complete list of courses needed to fulfill the requirements, please contact the director.

Program Requirements

Foundation: Take two of the following (6 hours):
ART 256 Design, Perception & Audience (3)
CSE 251 Computational Modeling and Simulation (3)
CSE 252 Web Application Programming (3)
ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)
ENG/IMS 238 Narrative and Digital Technology (3)
IMS 201 Information Studies in the Digital Age (3) (MPT)

Track: Take three courses in any one of the following specialization tracks (9 hours):
Note: Courses completed in the foundation cannot be used to complete a track.

Commercialization
BLS 437 Cyberlaw (3)
COM 211 Introduction to Electronic Media Production (4)
IMS 310 Usability and Digital Media Design (4)
IMS 355 Principles and Practices of Managing Interactive Projects (3)
IMS 390C Topics in IMS: Commercialization
MGT 311 Project Management (3)
MKT 419 eCommerce, Marketing and the Internet (4)

Interpretation
ENG/IMS 171 Humanities and Technology (3)
ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)
ENG/IMS 238 Narrative and Digital Technology (3)
ENG 313 Introduction to Technical Writing (3)
ENG 411 Visual Rhetoric for Technical and Scientific Communicators (3)
IMS 211 Introduction to Game Studies (3)
IMS 212 The Design of Play (3)
IMS 222 Interaction Design (3)
IMS 390I Topics in IMS: Interaction

Simulation
ARC 404Y Mind and Medium (3)
IMS 211 Introduction to Game Studies (3)
IMS 212 The Design of Play (3)
IMS 225 Games and Learning (3)
IMS 319 Foundations in 3D Design (3)
IMS 445 Game Design (3)
IMS 487 Game Prototyping, Pipeline and Production (3)
IMS 390S Topics in IMS: SimulationVisualization
IMS 222 Interaction Design (3)
IMS/ART 259 Aesthetics and Computation (3)
IMS 310 Usability and Digital Media Design (4)
IMS 356 Interactive Animation (3)
IMS/ART 359 Interactive Programming with ActionScript (3)
IMS 390V Topics in IMS: Visualization
MIS 245 Database Systems and Data Warehousing (3)

Take the following (4 hours):
IMS 440 Interactive Media Studies Practicum (4)

Interdisciplinary Studies

(18 semester hours)

For information, contact the Western Program (513-529-2233).

The minor in Interdisciplinary Studies offers students the opportunity to develop an explicitly interdisciplinary framework for understanding topics, questions, and issues of contemporary importance. An inquiry-based set of courses that emphasizes understanding and applying diverse theories and methodologies enables students to develop analyses that draw on and integrate knowledge from a range of different disciplines. Students also gain proficiency in developing their own interdisciplinary inquiries into ideas and problems that hold intellectual and social relevance for them, as students, citizens, and future professionals.

Program requirements

All of these:
WST 201 Self and Place (3)
WST 231 Interdisciplinary Inquiry (3; maximum 6)
WST 301 Interdisciplinary Problems and Questions (3)
WST 321 Developing Interdisciplinary Projects I: Exploring Ways of Knowing (3)
WST 322 Developing Interdisciplinary Projects II: Using Analytical and Rhetorical Tools (3)
WST 341 Interdisciplinary Synthesis and Action (3)

Italian

(18 semester hours)

For information, contact the Department of French and Italian, 207 Irvin Hall (513-529-7508).

This minor offers certified recognition of proficiency in Italian language and successful completion of a program in Italian culture and literature. It increases your understanding of a culture of major influence.

Requirements include completing at least 18 semester hours of Italian above the 100 level, including Italian 301 and 302. A minimum 2.00 g.p.a. is required for all courses in the minor. Courses must be taken for a grade (not credit/no-credit). Your program must be planned with an adviser.

Students are encouraged to attend the Miami University Summer Language Institute in Italy (Urbino).

Japanese

(18 semester hours)

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This minor provides exposure to literature and culture along with systematic language training in speaking, listening, reading, and writing.

Japanese language, culture, and relevant courses transferred from other institutions may be used to fulfill requirements. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

Select courses from these:
ATH 309/ENG 303/GER 309/SPN 303 Introduction to Linguistics (4)
JPN 201, 202 Second Year Japanese (3, 3)
JPN 231 Japanese Tales of the Supernatural in English Translation (3)
JPN 255 Drama in China and Japan in English Translation (3)
JPN 260 Topics in Japanese Literature in English Translation (3)
JPN 266 Survey of Japanese Cinema (3)
JPN 279 Buddhism and Culture: China and Japan (3)
JPN 381 Introduction to Japanese Linguistics (3)
JPN 301, 302 Third Year Japanese (3, 3)
JPN 401, 402 Japanese Culture and Society in Contemporary Texts (3, 3)

Other courses, including one-time offerings, honors courses, etc., may count; contact the Japanese program adviser.

Jewish Studies

(18 semester hours)

For information, contact the Director of Jewish Studies, 248 Upham Hall (513-529-5143).

This minor is an interdisciplinary program that encourages students to pursue their particular interests across a wide range of disciplines and periods focusing on the critical approaches to Jewish history, religion, thought, and culture. Jewish Studies credits may be transferred from other institutions, and experience in accredited international programs may be applicable. A 2.50 g.p.a. is required to obtain a Jewish Studies minor.

Program Requirements

Ancient and Medieval Core Courses (3 semester hours)
One of these:
CLS 310J Jews Among the Greeks and Romans (3)
HST 346 Medieval Jewish History (3)
HST 442 Ancient Jewish History (3)
REL 175 Critical Study of Biblical Literature (3)
REL 211 Introduction to the Religion of the Ancient Israel (3)

Modern Core Course (3 semester hours):
This one:
FRE/GER/RUS 212 Secular Jewish Culture from the Enlightenment to Zionism (3)

Focus Courses
Take 12 semester hours (no more than seven hours may be taken from the Holocaust Focus); at least six hours must be 300 level or higher. Additional core courses may be counted within these hours.

Culture History and Society
FRE/FST/GER 265 European Jewish Cinema (3)
GER 252 The German-Jewish Experience (3)
REL 499/599 Summer Workshop in Archaeology of Ancient Israel: Fieldwork (6)

Holocaust
HST 400A Senior Capstone in German History (when on the Holocaust) (3)
HST 472 Germany 1918-1945, from Revolution to Rubble (3)
PSY 348 Later Generations of the Holocaust: Psychological Effects (3)
REL 465 Jewish and Christian Responses to the Holocaust (4)

Language
HBW 201 Intermediate Modern Hebrew (3)
HBW 202 Intermediate Modern Hebrew (3)

Literature
ENG/FRE/GER 356 Contemporary Jewish Fiction in Europe (3)
ENG 230J Jewish American Fiction Since 1945 (3)

Religion and Thought
REL 213 Social and Religious History of the Jewish People (3)
REL 311 Archaeology and Biblical Studies (3)
REL 334 Women's Religious Experience in the Ancient Mediterranean (3)
REL 385 Religious Roots of Anti-Semitism (3)
REL 388 Jerusalem: The Meeting of Jews, Christians, and Muslims in the Holy City (3)
REL 440/540 Ancient Near Eastern Literature and Religion (1-4)
REL 475 Judaism in Modern Israel (4)

Latin American Latino/a & Caribbean Studies

(18 semester hours)

For information, contact the LAS Program, 120 MacMillan Hall (513-529-5333).

Latin American, Latino/a & Caribbean Studies (LAS) offer an interdisciplinary minor that is open to all students and is a valuable complement to a wide range of majors. Students may enroll in the program by declaring intent with an LAS adviser. LAS minors must complete SPN 202, POR 211 or FRE 202. All students must complete 6 of the 18 required credit hours in classes outside of their majors and outside of their second minors, if applicable.

Program Requirements

Core courses. At least nine (9) hours required
ATH 305 Peoples and Cultures of Latin America (3)
GEO 304 Latin American Development (4)
GEO 405 The Caribbean in Global Context (3)
LAS 207 Latin American Civilization (3)
LAS 208 Introduction to Latin America (3)
LAS/ENG 254 Latino/a Literature and the Americas (3)
LAS 260 Latin America in the United States (3)
LAS 277,277,477 Independent Study (1-3)
LAS 277X Service Learning (1)
(concurrent registration in MPF course)
LAS 315 Latin American Diaspora Communities (3)
LAS 319 Revolution in Latin America (3)
LAS 410 Current Latin American Issues (3)
LAS/IES 414 Latin American Environmental Affairs (3)
LAS 415 Cuba in Revolution: Its History, Politics, and Culture (MPC) (4)
LAS/HST 437 Latin America Environmental History (3)
LAS/POL 478 Media and Politics in Latin America and the Caribbean (3)
LAS 499 Study Abroad in Latin America and the Caribbean (3-6)
POL 337 Politics of Latin America (4)
POL 378 Latin America: The Region and the World (3)
POL 430E Seminar on Comparative Political Systems: Latin America (4)
SPN 315 Introduction to Hispanic Literature (3)
SPN 361, 362 Spanish American Cultural History I, II (3, 3)
SPN 430 Selected Topics in Literature and Culture: Spanish America (3)
SPN 463 Studies in Spanish American Poetry (3)
SPN 464 The Spanish American Essay (3)

Related Hours. Up to nine (9) hours can count toward the minor.
ATH/LAS 325 Identity: Race, Class, and Gender (3)
ATH 313 Introduction to South American Archeology (4)
GEO 473 Development and Underdevelopment (3)
HST 307 Latin American Civilization (Before 1820) (3)
HST 487 Mexico Since 1810 (3)
HST 488 Colonial Spanish America (3)
POR 111 Accelerated Introduction to Portuguese (4)*
POR 211 Intermediate Portuguese (4)*
POR 311 Composition and Conversational Portuguese (3)
SPN 311 Grammar Review and Introductory Composition (3)
SPN 450 Topics in Hispanic Literature and Language (3)
(Spanish American topic required)
SPN 482 Spanish Dialectology (3)
SPN 490 Issues in Hispanic Literature (3)
(Spanish American topic required)

* Students fulfilling the language skills requirement in Spanish can count POR 111 and 211 as credits in category C.

Language Requirement
Complete SPN 202, POR 211, FRE 202, or their equivalents

Electives. Optional courses containing substantial material, concepts, or applications relevant to Latin American studies; these can contribute up to 3 credit hours toward the total of 18.
ATH 175 Peoples of the World (3)
ATH 185 Cultural Diversity in the U.S. (3)
ATH/ITS 301 Intercultural Relations (3)
ATH 312 Introduction to North American Archaeology (4)
ECO 347 Economic Development (3)
ENG 348 Ethnic American Literature (3)
FRE 202 Critical Analysis of French Culture*
GEO 101 Global Forces, Local Diversity (3)
GEO 111 World Regional Geography (3)
HST 361 Colonial America (3)
HST 371 Native American History (3)
HST 400 Senior Seminar in History (when topic is appropriate)
ITS 201 Introduction to International Studies (3)
MUS 185 The Diverse Worlds of Music (3)
POL 326 Comparative Ethnic Politics (3)
POL 439 North American Politics: Unity and Diversity (3)
SOC 348 Race and Ethnic Relations (3)
SOC 372 Social Stratification (3)

* Students who take Spanish or Portuguese as their language can count this as an elective.

Linguistics

(18 semester hours)

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

Linguistics is the study of language. Linguists look at how people use language and try to find the rules that govern that use. Because linguistics touches so many areas of study, a minor in linguistics is useful for students majoring in foreign languages, English, sociology, anthropology, psychology, mathematics, communication, philosophy, or computer science. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

This one:
ENG 303 Introduction to Linguistics (4) **or**
GER 309 Introduction to Linguistics (4) **or**
ATH 309 Introduction to Linguistics (4)

These two:
ENG 405 and 406

At least eight semester hours from these:
ATH 265, 465; COM 337; ENG 301, 302, 410; FRE 341; GER 442; MTH 483; PHL 373; PSY 374; SPN 481, 482.

Note: When initiating the minor, students must register with the Linguistics adviser in English and thereafter check their progress with the adviser at least once a year until the minor is complete.

Lusophone Studies

(18 semester hours)

For information, contact the Department of Spanish and Portuguese, 268 Irvin Hall (513-529-4500).

A Lusophone studies minor serves to introduce students to the rich culture of Portuguese-speaking peoples and countries, especially Brazil. Portuguese is the seventh-most spoken language in the world. Knowledge of the Lusophone cultures is essential for understanding the political, economic, and social world with which the United States has increasing ties.

Program Requirements

Required Courses
POR 111 Accelerated Introduction to Portuguese (4)
POR 211 Second-Year Portuguese (4)

Choose one course from the following:

Taught in Portuguese:
POR 311 Grammar Review and Introductory Composition (3)
POR 315 Introduction to Literary Texts: Lusophone Literature (3)

Choose one course from the following:

Taught in English:
POR/BWS/ENG/FST 381 African Lusophone Literature (3)
POR/BWS/ENG/FST/WMS 383 By or About (Afro-) Brazilian Women (3)

Choose from the following to reach 18 credit hours:

Taught in English:
ATH 305 Peoples and Cultures of Latin America (3)
GEO 304 Latin American Development (4)
HST 307 Latin American Civilization - Colonial Period (3)
LAS 208 Latin American Civilization (3)
POL 337 Politics of Latin America (4)
POR 204 Brazilian Culture Through Popular Music (3)

Mathematics

(21 semester hours)

For information, contact the Department of Mathematics, 123 Bachelor Hall (513-529-5818).

This minor provides students with an increased understanding of, and competence in, mathematics. Building on a base of calculus and linear algebra, already required for many majors, the program leads students through a theoretical course, an applications course, and at least one additional elective in advanced mathematics.

A minimum 2.00 g.p.a. is required for all courses in the minor. All courses must be taken for a grade, not credit/no-credit. This minor is not available to majors in mathematics, mathematics and statistics, or mathematics education.

Program Requirements

One of these:
MTH 249 Calculus II (5) **or**
MTH 249H Honors Calculus II (5)
MTH 251 Calculus II (4)

One of these:
MTH 252 Calculus III (4) **or**
MTH 252H Honors Calculus III (4)

One of these:
MTH 222 Introduction to Linear Algebra (3)
MTH 222T Introduction to Linear Algebra (Honors) (2) **and**
MTH 331T Discrete Mathematics (Honors) (3)

At least 10 semester hours in mathematics courses at 300 level or above, including:
At least one of these: MTH 411, 421, 441, or 451
At least one of these: MTH 347, 432, 436, 437, 438, 439, 447, or 453
At least six semester hours at the 400 level

Note: You may count at most one semester hour from MTH 430 or 477 and three semester hours of PHY 341. MTH 330 and 406 do not count toward the minor. Students who have taken MTH 245 as a requirement for a major may count one hour of MTH 245 to the 10 hours at the 300 level, and for them, MTH 245 substitutes for MTH 347 in the list of "applications" courses.

Medieval Studies

(18 semester hours)

For information, contact John M. Jeep, Department of German, Russian, and East Asian Languages, 152 Irvin Hall (513-529-1952).

This minor provides a basis for understanding and evaluating Western civilization by showing its roots in the Middle Ages. It establishes a full cultural context so students can understand and appreciate medieval literature, history, art, religion, and philosophy.

The Medieval Studies minor is open to all students, but will probably be of most interest to majors in art history, classics, English, French and Italian, German, history, philosophy, religion, and Spanish.

Program Requirements

Eighteen semester hours from any of the following:
ART 466, 467, 468, 469, and 480W
ENG 371 and 431
FRE 443, 444
GER 260A
HST 313, 321, 345, 346, 353, 381, and 451
ITL 401
LAT 404
PHL 430
REL 232 and 430
SPN 351

Credit for course work at Dolibois European Center and in special seminars and other infrequently offered courses may also be applied to the minor with the approval of the Medieval Studies coordinator.

Middle East and Islamic Studies

(18 semester hours)

For information, contact the Department of Political Science, 218 Harrison Hall (513-529-2000).

This minor offers students a firm interdisciplinary grounding in the cultures, religious systems, history and politics of the Islamic world with an emphasis upon the modern Middle East. A minimum 2.50 g.p.a. is required for all courses in the minor.

Program Requirements

Six or more semester hours from these (no more than 6 hours to be taken in any one department):
ATH 307 Peoples and Cultures of the Middle East (3)
HST 321 Introduction to Islamic History (3)
HST 322 The History of the Modern Middle East (3)
POL 336 Politics of the Middle East (3)
REL 326 Islam in History (3)

Twelve or more semester hours from these:
ARB 201, 202 Intermediate Modern Arabic (3)
ARB 301, 302 Advanced Arabic (3)
ART 313 Early Christian, Byzantine, and Islamic Art (3)
ATH 307 Peoples and Cultures of the Middle East (3)
CLS 310E Conflict in Greco-Roman Egypt (3)
CLS 333 The Greeks in the Near East and Central Asia (3)
CLS 334 Egypt in Greco-Roman History and Fiction (3)
GEO 408 Geography of the Silk Road (3)
HST 321 Introduction to Islamic History (3)
HST 322 The History of the Modern Middle East (3)
HST 360R Central Asia: 20th Century (3)
ITS 402N Problems of the Middle East (3)
POL 328 Politics of Central Asia (3)
POL 336 Politics of the Middle East (3)
POL 339 Arab Nationalism In World Politics (3)
REL 326 Islam in History (3)
REL 475 Judaism in Modern Israel (4)

Other relevant courses can be applied with the approval of the minor's advisor.

Molecular Biology

(18 semester hours)

For more information, contact the Department of Zoology (513-529-3100).

The molecular biology minor is offered cooperatively by the Departments of Botany, Chemistry and Biochemistry, Microbiology, and Zoology.

This minor enables students to pursue in-depth a multidisciplinary study of biological phenomena at the molecular level. It provides a strong foundation for students planning careers in biotechnology or advanced work at the graduate level. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

All of these:
One course in biochemistry (CHM 332, 432, or 433)
One course in cell biology (BOT 203, MBI 201, ZOO 203, or ZOO 443)

One course from three of the four departments (BOT, CHM, MBI, or ZOO)

One laboratory course (BOT 415, BOT/MBI/ZOO 424, CHM 438, MBI 465, or ZOO 464) or earn at least two credits of directed research in molecular biology.

One course in molecular biology (CHM 434, MBI 365, or ZOO 444)

Other courses to bring total semester hours to 18:
BOT 203 Introduction to Cell Biology (3)
BOT 255 Plant Biotechnology (3)
BOT 342 Genetics (3)
BOT 403 Plant Development (3)
BOT 415 Plant Tissue Culture/Plant Biotech Laboratory (4)
BOT/MBI/ZOO 424 Biological Instrumentation (4)
BOT/MBI/ZOO 466 Bioinformatics Computing Skills (3)
BOT/MBI/ZOO 485 Bioinformatic Principles (3)
CHM 332 Outlines of Biochemistry (4)
CHM 432 Fundamentals of Biochemistry (4)
CHM 433 Biochemistry (3)
CHM 434 Biochemistry (3)
CHM 438 Biochemistry Laboratory (2)
MBI 201 General Microbiology (4)
MBI 365 Molecular and Cellular Biology (3)
MBI 414 Immunology (3)
MBI 425 Microbial Physiology (4)
MBI 445 Microbial Genetics (3)
MBI 464 Human Viruses (3)
MBI 465 Microbial and Molecular Genetics Laboratory (2)
ZOO 203 Introduction to Cell Biology (3)
ZOO 342 Genetics (3)
ZOO 361 Patterns in Development (4)
ZOO 442 Mechanisms of Animal Development (3)
ZOO 443 Cell Biology (3)
ZOO 444 Molecular Biology (3)
ZOO 449 Biology of Cancer (3)
ZOO 464 Laboratory in Cell/Molecular Biology (3)
ZOO 471 Molecular Physiology (3)

Naval Science

(22 semester hours)

For information, contact the Department of Naval Science, 67 Millett Hall (513-529-3700).

This minor is an interdisciplinary program open to all majors. It introduces students to the broad field of naval service and provides specific information on the organization and operation of the United States Navy and Marine Corps. The naval science minor includes courses in physical and social sciences, formal reasoning, and computer science.

No courses may be taken credit/no-credit. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

Core sequence
All of these:
NSC 101 Naval Orientation and Organization (2)
NSC 202 Sea Power and Maritime Affairs Seminar (3)
NSC 211 Leadership and Management (2)
NSC 402 Naval Personnel Management (3)

Six semester hours from these:
NSC 102 Naval Ship's Systems (3)
NSC 201 Naval Mission Systems (3)
NSC 301 Navigation (4)
NSC 302 Naval Operations and Seamanship (3)
NSC 311 The Evolution of Warfare (3)
NSC 320 Tactical Problems Seminar (1)
NSC 377 Independent Studies (1-5)
NSC 411 Amphibious Warfare (3)

One course each from two different departments
Minimum six hours from these:
CSE 141 Fundamentals of Computing (2)
CSE 151 Computers, Computer Science, and Society (3)
CSE 163 Introduction to Computer Systems (3)
CSE 174 Structured Programming and Computer Algorithms (3)
MIS 235 Information Technology and the Intelligent Enterprise (3)
HST 112 Survey of American History II (3)
HST 219 U.S. Diplomatic History to 1914 (3)
HST 222 U.S. Diplomatic History Since 1914 (3)
HST 369 United States in the Modern Era (3)
HST 431 The U.S.-Vietnam War (3)
MGT 291 Introduction to Management & Leadership (3)
MTH 151 or 153 Calculus I (5)
MTH 249 or 251 Calculus II (4)
PHY 181, 182 General Physics I, II (4, 4)
POL 373 American Foreign Policy (3)
POL 376 United States National Security Policy (3)
POL 382 International Law (3)
POL 387 Comparative Security Issues (3)
STA 261 Statistics (4)

Neuroscience

(18 semester hours)

For information, contact the Department of Psychology, 100 Psychology Building (513-529-2400) or the Department of Zoology, 212 Pearson Hall (513-529-3100); this minor is offered cooperatively.

This minor enables students to pursue in depth a multidisciplinary study of the nervous system. It provides a basic framework for students planning advanced work at the graduate level.

A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

Required courses:
PSY 251 Introduction to Biopsychology (3)
ZOO 203 Introduction to Cell Biology (3)
ZOO 305 Animal Physiology (4)

Choose at least 3 courses:*
PSY 351 Advanced Biopsychology (4)
PSY 356 Psychopharmacology (3)
PSY 410A or E Capstone Seminar in Neuroscience (3)
PSY 451 Cognitive Neuroscience (3)
PSY 456 Neurobiology of Learning and Memory (3)
ZOO 454 Endocrinology (3)
ZOO 457 Neuroanatomy (3)
ZOO 458 Neuroanatomical Methods (1)
ZOO 459 Methods in Neurophysiology (1)
ZOO 464 Laboratory in Cell/Molecular Biology (3)
ZOO 465 Animal Behavior (4)
ZOO 469 Neurophysiology (3)
ZOO 471 Molecular Physiology (3)

* At least one course from each department.

Other relevant work:

Course work in calculus, statistics, chemistry, computer science, and philosophy of science.

An independent research project (with PSY 477 or ZOO 320) is recommended.

Operations Research Methods

(19 semester hours)

For information, contact the Department of Mathematics, 123 Bachelor Hall (513-529-5818).

Operations research is the use of scientific methods in decision making. It seeks to observe, understand, and predict the behavior of human-machine systems through the use of mathematical models.

This minor is available to all majors. A minimum 2.00 g.p.a. is required for all courses applicable to the minor. All courses must be taken for a grade, not credit/no-credit.

To explore the possibility of designing your own program, contact the adviser for this minor in the Department of Mathematics. Otherwise, follow the program below, which includes the CSE 3 Thematic Sequence (Mathematical and Computer Modeling). Majors in CSE typically satisfy the MTH 2 Thematic Sequence (Basic Mathematical Tools for Science).

Program Requirements

All of these:
CSE 273 Optimization Modeling (3)
CSE 372 Stochastic Modeling (3)
CSE 471 Simulation (3)
STA 463 Regression Analysis (4)

At least one of these:
MTH 432 Optimization (3)
MTH 438 Theory and Applications of Graphs (3) **and**
MTH 453 Numerical Analysis (3) **and**A second course chosen from the three above or one of the following:
MTH 435 Modeling Capstone (3)
MTH 437 Game Theory (3)
MTH 439 Combinatorics (3)
MTH 447 Topics in Mathematical Finance (3)
STA 483 Analysis of Forecasting Systems (3)

Physics

(24-30 semester hours)

For information, contact the Department of Physics, 133 Culler Hall (513-529-5625).

This minor provides a foundation in classical and modern physics together with enhanced skills in electronics or computational physics. It is not available to majors in physics or engineering physics. Courses may not be taken on a credit/no-credit basis.

Program Requirements

All of these:
PHY 181, 182 The Physical World (4, 4)
PHY 183, 184 General Physics Laboratory (1, 1)
PHY 291 Contemporary Physics (4)
PHY 293 Contemporary Physics Laboratory (2)
MTH 151 Calculus I (5), MTH 251 Calculus II (4) **or**
MTH 153 Calculus I (4), MTH 251 Calculus II (4) **or**
MTH 249 Calculus II (5)

Either:
PHY 292 Electronic Instrumentation (3) **and**
PHY 294 Laboratory in Electronic Instrumentation (2), **or**
PHY 286 Introduction to Computational Physics (3)

Plant Biotechnology

(18 semester hours)

For information, contact the Department of Botany, 316 Pearson Hall (513-529-4200).

This minor exposes students to the field of plant biotechnology and related areas, including the tools and methods used to manipulate living organisms, as well as the ethical and social implications of these technologies.

All courses for the minor must be taken for a grade and a minimum cumulative grade point average of 2.0 must be obtained.

Program requirements:

BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) **or**
BOT 191 Plant Biology (4) **or**
BOT 101 Biotechnology: Coming of Age in the 21st Century (3)
BOT 203 Introduction to Cell Biology (3) **or**
MBI 365 Molecular and Cell Biology (3)
BOT 203L Plant Cell Biology Laboratory (1)
BOT 255 Introduction to Biotechnology (3)
BOT 415 Techniques in Plant Biotechnology (3)

Additional courses selected from the following (18 hours):
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)
BOT 312 Plant and Fungal Diversity (4)
BOT/ZOO 342 Genetics (3)
BOT 425 Environmental Plant Physiology (4)
BOT/MBI/ZOO/CSE 466 Bioinformatics Computing Skills (3)
BOT/MBI/ZOO 485 Bioinformatics Principles (3)
CHM 332 Outlines of Biochemistry (4)
CHM 433 Biochemistry (3, 3)
CHM 434 Biochemistry (3, 3)
CHM 438 Biochemistry Laboratory (2)

Political Science

(21 semester hours)

For information, contact the Department of Political Science, 218 Harrison Hall (513-529-2000).

If you are not majoring in political science, this minor offers you an opportunity to satisfy an interest, strengthen your degree, or enhance your preparation for career or further education.

This minor is not open to students with majors or another minor in the Department of Political Science.

Program Requirements

Take this course first:
POL 241 American Political System (4)

Take at least one of these (which are prerequisites to corresponding 300-400 level courses):
POL 201 Political Thinking (4)
POL 221 Modern World Governments (4)
POL 261 Public Administration (4)
POL 271 World Politics (4)

Choose at least nine semester hours from other political science courses at the 300 level or above. Additional POL hours at the 200 level or above to complete 21 hours. Students are encouraged to consult with a faculty adviser when selecting courses. At least 12 hours applied to the minor must be taken at Miami.

Religion

(18 semester hours)

For information, contact the Department of Comparative Religion, 7 Old Manse (513-529-4300). This minor is arranged with a faculty adviser in the department.

Program Requirements

This one:
REL 302 Methods for the Study of Religion (4) **and**
At least 14 additional semester hours in religion (nine hours must be at 300 level and above, including 302).

Note: No more than six hours at 100 level can count toward the minor. REL 207 and 209 do not count toward the minor.

Russian

(18 semester hours)

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

You must have a minimum cumulative g.p.a. of 2.50 for courses taken at Miami. Courses for the Russian minor must be taken for a grade (not credit/no-credit).

Program Requirements

Eighteen semester hours in Russian above 100 level, including these:
RUS 201, 202, 301, 302, and 311 or 411.

Remaining hours from these:
RUS 137, 250, 251, 253, 254, 255, 256, 257, 258, 263, 272, 401, 412, 450, or 451.

Russian, East European, and Eurasian Studies

(18 semester hours)

For information, contact the Department of German, Russian, and East Asian Languages, 172 Irvin Hall (513-529-2526).

This interdisciplinary minor allows students to study the history and culture of Russia, East Europe, and Eurasia, broadly defined as the territory of the former Soviet republic, from medieval times to today. Drawing from a range of disciplines and approaches, students have the opportunity to explore issues of political, social, and regional identity and cultural diversity, as well as official and popular culture.

Proficiency in Russian 102 or above is required. Students are encouraged to attend the Miami summer Russian language workshop in Novgorod, Russia, the Miami summer Russian culture workshop in St. Petersburg, Russia, or an approved academic study program in Central Asia, the Caucasus, or East Europe.

Program Requirements

Required Course
RUS 102 Beginner's Course in Russian (4)

Core Requirements
This one:
HST/POL/REL/RUS 254 Introduction to Russian, East European, and Eurasian Studies (3)

One of these:
HST 324, 374, 375, 378, 470, 475, 476

One of these:

POL 328, 331, 332, 420, 430B, 488; ITS 402O

One of these:
ATH/GEO/RUS 306; GEO 408; HST/POL/RUS 230; POL 440; REL 235

Two additional courses from the following list or those listed above:
ARC 404; CLS/RUS 214; MUS 188; REL/RUS 133; RUS 137, 201, 202, 250, 251, 253, 255, 256, 257, 258, 301, 302, 311, 401, 411, 412, 450; RUS/FST 263, 272.

Sociology

(18 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628). Applied Sociological Research and Criminology minors are described earlier.

Program Requirements: Pre-professional Minor

This pre-professional minor is for non-sociology majors planning careers in law, medicine, dentistry, business, and social science. Depending on your option, the minor consists of three or four required courses and additional hours chosen from a set of electives. Not all courses are offered each semester or year.

You must declare this minor before or during your junior year. You may pursue only one Pre-professional sociology minor. A minimum overall g.p.a. of 2.50 is required. All courses for this minor (excluding fieldwork) must be taken for a grade.

Option in law
All of these:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 201 Social Problems (4) **or**
SOC 202 Social Deviance (4)
SOC 412 Sociology of Law (3)
At least seven semester hours from these: SOC 202, 348, 352, 372, 411, 454.

Option in medicine or dentistry

All of these:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 357 Medical Sociology (3)
SOC 372 Social Stratification (3)

Two of these:
GTY 335 Disability and Aging (3)
GTY 356 Biopsychosocial Aspects of Health and Aging (3)
GTY 478 Racial/Ethnic Disparities in Chronic Illness (4)
GTY 485 Long-Term Care in an Aging Society (3)
SOC 201 Social Problems (4)
SOC 221 Human Sexuality (3)
SOC 257 Population (3)
SOC 260A Internship: An Introduction to Applied Sociology and Human Services (1-4)
SOC 318 Sociology of Aging and the Life Course (3)
SOC 358 The Sociology of Mental Disorders (3)

One of these:
KNH 206 AIDS: Etiology, Prevalence, and Prevention (3)
KNH 232 Health Issues of Children and Youth (2)
KNH 243 Women's Health Care: Problems and Practices (3)
KNH 386 African Americans & Health Issues (3)
KNH 462 Health Program Planning and Evaluation (3)
PHL 375 Moral Issues in Health Care (4)
PHL 475 Justice in Health Care (4)

Option in business

All of these:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 201 Social Problems (4)

Two of these:
SOC 225 Work and Occupational Justice (3)
SOC 417 Economy and Society (3)
SOC 454 Formal Organization (3)

Required hours for the minor (take any of the following):
GTY 365 Social Policy and Programs in Gerontology (3)
SOC 203 Sociology of Gender Roles (3)
SOC 205 Global Sociology (3)
SOC 348 Race and Ethnic Relations (3)
SOC 372 Social Stratification (3)
SOC 411 Social Conflict (3)

Note: The use of independent study hours or SOC 490 must be preapproved by the CDA in Sociology.

Option in social science
All of these:
SOC 151 Social Relations (4) **or**
SOC 152 Social Relations and U.S. Cultures (4)
SOC 201 Social Problems (4)
SOC 262 Research Methods (4)
SOC 482 Sociological Theory (4)
Any other course in sociology (2-4)

Spanish

(18 semester hours)

For information, contact the Department of Spanish and Portuguese, 268 Irvin Hall (513-529-4500).

You must plan your program with your adviser in the department. Courses may not be taken credit/no-credit. This minor consists of Spanish courses above 202 level.

Program Requirements

This course:
SPN 311 Grammar Review and Introductory Composition (3)

One of these:
SPN 312 Introduction to Spanish Language/Linguistics (3)
SPN 315 Introduction to Hispanic Literature (3)

One of the following sequences:
SPN 351, 352 Cultural History of Spain I, II (3,3)
SPN 361, 362 Spanish American Cultural History I, II (3,3)
SPN 381, 382 Spanish Language and Culture I, II (3,3)

Two additional courses from any 300 level course (excluding SPN 303 and SPN 341), or SPN 420, 430, 440, or 481-484.

Statistical Methods

(18 semester hours)

For information, contact the Department of Statistics, 311 Upham Hall (513-529-7828).

This minor builds on the statistical methods of estimation and hypothesis testing introduced in the introductory statistics course. It includes additional study of the statistical methods involved in regression analysis and experimental design as well as options for study of non-parametric, quality control, and/or sampling methods. A Capstone experience in statistics may also be included as part of the minor.

This minor is not available to students majoring in mathematics, statistics, or mathematics and statistics.

To complete the minor in statistical methods, you must earn at least 18 semester hours with at least a 2.00 g.p.a. A course taken on a credit/no credit basis does not apply toward the minor.

Program Requirements

All of these:
MTH 151 or MTH 153 **or** MTH 249
STA 261 **or** STA 301 **or** STA 368
STA 363

Three courses from these:
STA 333, 365, 432, 475

Statistics

(18 semester hours)

For information, contact the Department of Statistics, 311 Upham Hall (513-529-7828).

Statistical methods are increasingly in use in decision-making and data analysis in business and industry. Moreover, basic research in the biological, management, and social sciences, as well as in some areas of humanities, is also increasingly statistical in nature. As a result, demand for persons knowledgeable in the science of statistics is on the rise. The minor in Statistics provides a program in statistics suitable for students with good mathematical abilities.

This minor is not available to students majoring in either statistics or mathematics and statistics.

To complete the minor in Statistics, you must earn at least 18 semester hours with at least a 2.00 g.p.a. A course taken on a credit/no credit basis does not apply toward the minor.

Program Requirements

All of these:
MTH 251 Calculus II (4)
STA 301, STA 401, STA 463, and STA 466

One of these:
STA 333, STA 365, STA 402, STA 432, STA 462, STA 467, STA 475, STA 483, or STA 484

Urban and Regional Analysis

(20 semester hours)

For information, contact the Department of Geography, 216 Shideler Hall (513-529-5010).

Urban and regional planners develop programs and policies to guide future growth and redevelopment of urban, suburban, and rural communities. They assist elected officials in solving the social, economic, and environmental problems of their communities.

This minor is not available to urban and regional planning majors. All courses must be taken for a grade, not credit/no-credit, except by permission of the primary adviser. Six courses, or at least 20 semester hours, are required. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

All of these:
GEO 101 Global Forces, Local Diversity (3)
GEO 201 Geography of Urban Diversity (3)
GEO 451 Urban and Regional Planning (3)
GEO 459 Advanced Urban and Regional Planning (3)

Two or three of these to bring the total to 20 hours:
GEO 241 Map Interpretation (3)
GEO 437 Regional Land Use Capability Analysis (3)
GEO 441 Geographic Information Systems (3)
GEO 442 Advanced GIS (3)
GEO 444 GIScience in Landscape Ecology (3)
GEO 447 Aerial Photo Interpretation (4)
GEO 448 Techniques and Applications of Remote Sensing (3)
GEO 454 Urban Geography (3)
GEO 455 Race, Urban Change, and Conflict in America (3)
GEO 457 Global Cities (3)
GEO 458 Cities of Difference (3)
GEO 462 Public Space (3)
GEO 467 Land Use, Law and the State (3)
GEO 475 Global Periphery's Urbanization (3)
GEO 476 Global Poverty (3)
GEO 493 Urban Field Experience (3)
STA 261 Statistics (4)

Selected GEO 460 courses and other courses may be substituted with permission of your primary adviser.

Women's Studies

(18 semester hours)

For information, contact the director of the Women's Studies Program, 126 MacMillan Hall (513-529-4616).

The Women's Studies Program is a dynamic, interdisciplinary program that investigates how our lives are affected by gender race, class, age, sexuality, religion, (dis)ability, gender identity, and nationality. Women's Studies emphasizes the importance of understanding gender as a part of wider social and political structures of power, knowledge, experience, culture, embodiedness, intimacy, and labor. Women's Studies courses are organized around contemporary feminist research and theory, and focus intersectionally on women, gender, and sexuality as subjects of inquiry. Our coursework also focuses on how theory and practice come together. Students may choose from courses spanning departments, disciplines, divisions and ideologies. The Women's Studies program provides a context in which women's work and women's issues are explored in-depth, celebrating women's creativity, women's lives, and women's work. In Women's Studies, students find an active and supportive community, close interaction with faculty, opportunities to take on leadership roles, and an academic program that allows them to cross the traditional disciplinary boundaries.

This minor may be completed by any student. You are urged to choose your courses with an adviser. Women's Studies courses may fulfill other departmental, college, or Miami Plan requirements.

A minimum 2.00 g.p.a. is required for all courses in the minor. This minor fulfills the Miami Plan Thematic Sequence requirement.

Program Requirements

One of these:
WMS 401 The Role of Women in a Transforming Society (3)
BWS/WMS/ENG 432 Feminism and the Diaspora: U.S. Women of Color (3)

One of these:
WMS/PHL 355 Feminist Theory (4)
WMS/ENG 368 Feminist Literary Theory and Practice (3)
WMS 431 French Feminism in the Age of Globalism (3)
WMS/ENG 435 Queer Theory (3)
WMS/BWS 437 Black Feminist Theory (3)
Feminist theory course approved by the Women's Studies Advisory Committee

Other courses:
WMS 201 Introduction to Women's Studies (3) is strongly recommended, particularly as a first course for students considering this minor.

WMS courses and courses cross-listed with Women's Studies to be used for the remaining hours.

Courses, not cross-listed with the Women's Studies Program, may be approved for this minor. Special topics courses offered by the program and selected honors seminars are offered most semesters.

Writing-Rhetoric

(18 semester hours)

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

This minor provides an understanding of how language and writing shape actions and attitudes and form persuasive discourse through study of rhetorical theory for writers, research methods in writing, and practice in a wide range of writing that college-educated graduates can be expected to produce in their civic and professional lives.

Courses taken credit/no-credit will not count toward the minor. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

Required courses:
ENG 223 Ancient and Modern Rhetorical Strategies for Writers (3)
ENG 495 Capstone in Literature (3)

Elective courses (12 hours):
ENG/IMS 171 Humanities and Technology (3)
ENG 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)
ENG 225 Advanced Composition (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)
ENG 298 Introduction to Literary and Cultural Studies (3)
ENG 301 History of the English Language (4)
ENG 302 Structure of Modern English (4)
ENG 303 Introduction to Linguistics (4)
ENG 304 Backgrounds to Composition Theory and Research (3)
ENG 313 Introduction to Technical Writing (3)
ENG 315 Business Writing (3)
ENG 323 Creative Non-Fiction (3)
ENG 411 Visual Rhetoric for Technical and Scientific Communicators (3)
ENG 412 Editing for Technical and Scientific Communicators (3)
ENG 413 Writing Reports and Proposals (3)
ENG 414 Designing and Testing User Documents for Technical and Scientific Communicators (3)
ENG 481 Writing Center Consulting (3)

The Farmer School of Business

Student Services Office
1022 Farmer School of Business
Phone: 513-529-1712
www.fsb.muohio.edu

Degrees and Majors Offered

Bachelor of Science in Business in:

- Accountancy
- Business-Economics
- Finance
- Interdisciplinary Business Management
- Management and Leadership
- Management Information Systems
- Marketing
- Supply Chain and Operations Management

Associate of Applied Business
(Refer to Hamilton and Middletown chapter.)

Certificate Programs

China Business Certificate

Additional certificate programs are offered at regional campuses. Refer to the Hamilton and Middletown section.

Mission Statement

The Farmer School of Business is committed to being a premier business program that provides students with the lifelong ability to acquire knowledge and translate it into responsible action in a competitive global environment

General Information

The objective of the Farmer School of Business is to prepare young men and women of character and intellectual ability for positions in business, government, and other complex organizations. Upon graduation, their educational preparation is such that, with experience and growth, they should progress to positions of increasing administrative or executive responsibility.

The School offers associate's (two-year), bachelor's, and master's degree programs. Undergraduate certificate programs are also available. Master's degree programs are described in the Graduate Programs of Study chapter. Certificate and associate's degree programs are described in the Hamilton and Middletown chapter.

Bachelor's degree majors are offered in eight areas: accountancy, business-economics, finance, interdisciplinary business management, management, management information systems, marketing, and supply chain and operations management. The flexibility of each program allows a student to pursue areas of special interests and needs. Minors are available in arts management, business analytics, business legal studies, decision sciences in business, economics, entrepreneurship, finance, international business, management, management information systems, management of information technologies, marketing, risk management and insurance, and supply chain management.

Accreditation

The Farmer School of Business has been accredited by the Association to Advance Collegiate Schools of Business at the undergraduate level since 1932 and at the graduate level since 1961. This association is the only agency recognized nationally to accredit in the area of professional education for business at the collegiate level. Its standards include an evaluation of faculty competence, library facilities, physical plant and equipment, financial support of the institution, and the content and breadth of both the professional and nonprofessional curricular requirements.

Advisory Committees

The Business Advisory Council is composed of over fifty leading business executives, most of whom are alumni of the School. The council meets with the dean, faculty, and students twice a year to give advice on the School's programs. The council is very helpful to the School's continuing efforts to maintain excellence in education for future business leaders.

The School also meets regularly with several other external councils who provide feedback on our various programs: Richard T. Farmer Board of Visitors, Business Information Systems Advisory Council, Thomas C. Page Center for Entrepreneurship Advisory Council, Department of Accountancy Advisory Group, and the Center for Sustainable Systems External Advisory Council.

The Business Student Advisory Committee provides excellent means of communication between students and faculty. Members of this committee include students from all programs and class years within the school and representatives from various business student organizations.

Divisional and Departmental Honors

The Farmer School of Business offers a divisional honors program for students who qualify and who desire more intensive work under the guidance of a faculty mentor(s). Additionally, the Department of Economics offers a separate departmental honors program (see requirements under that heading). Students who successfully complete one or both of these programs will graduate with the appropriate honors notation on their transcript and under their names in the commencement program.

Students are admitted to the business honors program based on their ACT (SAT) score, class rank, letters of recommendation, and essay. The decision to admit a student is made by the Business Honors Committee. Approximately forty (40) students are admitted each year.

Both divisional and departmental honors programs in the School of Business may be coordinated and integrated with the University Honors Program. A common project may serve divisional, departmental, and university honors, but separate and distinct presentations must be made to earn each honors notation.

For more information, contact the Student Services Office at the Farmer School of Business, 1022 FSB (513-529-1712) or visit the website: *http:/www.fsb.muohio.edu/programs/honors*.

Honorary and Professional Organizations

The School seeks to improve the quality of its programs and provide educational development opportunities for its students through its honorary and professional organizations.

Beta Gamma Sigma, the national scholarship society founded in 1913 to encourage and reward scholarship and accomplishment among students of business administration, has an active chapter at Miami University. Eligibility for election is restricted to the upper 7 percent of the junior class and the upper 10 percent of the senior class.

Alpha Iota Delta is a national decision sciences honorary that elects its members on the basis of scholastic achievement. Alpha Mu Alpha is a national marketing honorary that elects its members on the basis of scholastic achievement.

Beta Alpha Psi is a national accounting honorary that elects its members on the basis of scholastic achievement in accountancy courses. Omicron Delta Epsilon is a national economics honorary that elects its members on the basis of scholastic achievement in economics courses.

Students also are encouraged to participate in student professional organizations, which include: AIESEC in the international field; Alpha Kappa Psi; Alpha Upsilon chapter of Delta Sigma Pi, a professional business fraternity; Buck Rodgers Business Leadership Program; Business Student Advisory Committee (BSAC); Economics Club; China-American Business Organization (CABO); Economics Club; Entrepreneurial Connection; Information Systems Audit and Control Association (ISACA); Miami Business Consulting; Miami Decision Sciences Association; Miami Finance Association; Miami Business Enterprises; Miami Finance Association; Miami University Investment Banking Club; Miami University Student and Alumni Credit Union; Miami University Student Venture Fund; Multicultural Business Student Network; Phi Kappa Nu, Pi Sigma Epsilon, a professional fraternity in marketing, sales management, and selling; Society for Human Resources Management; Supply Chain Management Association, and Toastmasters.

Advisers

Upperclass advisers for all business majors are assigned by the department of major, and the assignment is posted. Each program also has a chief adviser who coordinates the advising procedures within a department and represents the department on the committee that hears student petitions, the Divisional Committee of Advisers. Divisional advisers are also available to help business students with special problems. Advising assignments and information is available at the following website: *http://www.fsb.muohio.edu/offices/academic-advising*.

Special Admission Requirements

Admission to the Farmer School of Business is limited, and the criteria for admission are subject to change as enrollment demands vary.

Freshman Admission

Business Honors Admission

Entering freshmen who are admitted to and participate in the School of Business Honors Program are afforded **regular business** standing (full admission to the business school) upon initial enrollment.

Direct Admission

A limited number of entering first year students will be offered Direct Admission (regular business standing) to the School. The academic credentials required will vary during each admission cycle and are determined by the Office of Admission; details will be available on the Farmer School website: *http://www.fsb.muohio.edu/prospective-students/undergraduate/admission-requirements.* Students who are directly admitted follow the same curriculum but will often have even more flexibility in the scheduling of their courses. This can be particularly helpful to ensure full application of AP and post-secondary credit and for planning study abroad and internship opportunities.

Regular Admission

All other entering freshmen, admitted to the School as **"pre-business"** majors, will advance to regular business upon successful completion of all admission requirements. The requirements are 60 semester hours including ACC 221, ACC 222, DSC 205, ECO 201, ECO 202, MIS 235, and MTH 151 with a 3.00 g.p.a. in the combination of all business core courses and Miami Plan foundation courses. In addition, a minimum of twelve semester hours of business core courses must be completed at Miami.

Portfolio Admission

Students who fail to meet admission requirements may be eligible for admission through portfolio review; a limited number will be accepted. Contact the advising office and/or visit the portfolio website for more information: *www.fsb.muohio.edu/offices/student-development/portfolio.*

Pre-business students who do not meet the conditions of regular standing will not be permitted to enroll in 300-400 level courses.

Transfer Admission

All other students may be admitted to the Farmer School of Business upon application and successful completion of all admission requirements. Applications to the School are accepted only at designated times; contact the advising office in 1022 FSB or visit the School of Business Web site (*www.fsb.muohio.edu*) for current admission requirements and application procedures.

Students who have applied, but fail to meet admission requirements, may be eligible for admission through portfolio review; a limited number will be accepted. Please contact the advising office for more information.

The business technology programs on the regional campuses do not have these special admission policies.

Credit Hour Limitations

Students may accelerate their programs by registering in excess of the average 16 hours per semester needed to complete the program in eight semesters. Registrations of up to 20 hours are permitted in a regular semester or eight hours in a five- or six-week summer term. Course loads in excess of these limitations require permission from the Student Services office. Requests are normally only considered if the student earned a 3.5 grade point average for the preceding semester or is a senior who earned a 3.0 the previous semester.

Division Curriculum Requirements

In addition to the Miami Plan requirements, all business programs have a core of basic courses in accounting, information systems, economics, finance, business law, statistics, organizational behavior, marketing, operations, speaking skills, and calculus. This core is described in detail later. The following requirements apply to all business majors:

Business Capstone Experience

In addition to completing a Miami Plan Capstone Experience, all business majors must complete a business Capstone Experience. You should complete the business core first. The business Capstones are senior level experiences which are writing and speaking intensive, provide for multiple skill development, and integrate the business course work you have already completed.All business Capstones are also Miami Plan Capstones; you may fulfill both requirements with one course. You are encouraged to consider a Capstone from any business department. A complete list is available on your DAR or in the advising office.

Communication Requirement

All business programs require COM 135 Public Expression and Critical Inquiry. In addition, each major incorporates communication across the curriculum so that writing and speaking skills are important characteristics of that program.

Credit/No-Credit

All business courses, COM 135, MTH 151 or 153, and any other specifically required course (except freshman English) or major requirement must be taken for a grade and **not credit/no-credit**.

Diversity Perspectives Requirement

You must complete at least one course that provides an understanding of diversity perspectives. This course may be selected from any division and may overlap with your Foundation courses, Thematic Sequence, major, or electives. A list of approved courses is available from the academic adviser or the advising office in 1022 FSB or at the following website: *http://www.fsb.muohio.edu/offices/academic-advising/forms-documents*.

Grade Point Average

A minimum 2.0 cumulative grade point average in business courses is required for graduation.

International Course Requirement

To satisfy the International Course Requirement (8 hours) you may select any combination of the following:

Language

You may apply up to eight credit hours in a foreign (modern) language (or its equivalent at another university or in a study abroad program) to meet this requirement. Courses in English translation do not apply towards the international requirement. International students whose native language is not English may use English to satisfy this requirement.

Study Abroad

You may apply up to eight hours of approved study abroad credit to the international requirement. All summer and semester study abroad programs sponsored by the Farmer School of Business are automatically approved. Study abroad approval forms for other programs may be obtained in the School of Business Student Services Office and should be completed prior to entering any study abroad program.

Approved International Electives

You may apply up to eight hours of approved international elective courses to this requirement. A list of approved courses is available from an academic adviser or the School of Business Student Services Office.

Mathematics Requirement

All business students must complete MTH 151 or 153 Calculus I or equivalent. Completion of this course is required for advancement from pre- to regular business standing or for transfer into the School of Business from another academic division or another college or university. Advanced placement credit for MTH 151 is accepted toward fulfillment of this requirement.

Non-Business Requirement

All business majors must take at least 50 percent of their hours required for graduation outside of the business school. You can include up to nine hours of economics and six hours of statistics courses (DSC/STA) toward meeting this requirement. This means that business majors who enter Miami as freshmen must complete at least 64 hours outside of the Farmer School of Business.

Residency Requirement

All business majors must complete at least 50 percent of their business courses required for their business degree at Miami University. These courses include the core business classes and the courses required for a primary major. These required courses include DSC 205, ECO 201 and 202, but do not include COM 135 or MTH 151.

Statistics Requirement

You are expected to take DSC 205 Business Statistics. Any other introductory probability and statistics course is considered duplicate credit. Students with advanced placement or transferred hours in probability and statistics should consult with the decision sciences and management information systems department before enrolling in DSC 205.

Technology Requirement

Students are expected to take MIS 235 Information Technology, and the Intelligent Enterprise. The prerequisite for MIS 235 is CSE 148 or successful completion of the School of Business Skills Exam and BUS 101, 102. Students who plan to complete courses in computer science and software engineering should consult with the decision sciences and management information systems department before enrolling in MIS 235 or in computer science and software engineering courses to avoid duplicate credit.

Thematic Sequence Requirement

Business students must complete a thematic sequence from a department outside the School of Business. The DSC 2 thematic sequence, however, is permitted for business students. Alternatively, a nonbusiness minor or a second degree may be utilized to meet the requirement.

Transfer of Course Credit

All transferred course credits intended to apply to specific course requirements for any business program are subject to approval of the department concerned. If credit hours earned are less than Miami's equivalent courses, they must be validated by the department. A department may require an examination or completion of a higher level course to validate transfer credit.

The Department of Accountancy requires transfer students majoring in accountancy to complete at least four junior or senior level accountancy courses at Miami University with at least a 2.0 grade point average.

The Department of Economics requires students to complete at least nine hours of advanced economics (above 300 level) at Miami including ECO 315 and ECO 317.

The Department of Finance requires students majoring in finance to complete at least 12 elective hours of finance (FIN) courses at Miami.Curriculum Options

You are responsible for completing the curriculum that is in effect the date of your initial Miami enrollment. However, since programs offered by the Farmer School of Business change as new courses are added and programs are modified, you may opt to complete a revised program in its entirety.

Double Majors

A student who has earned 60 or more semester hours with a 3.50 or higher g.p.a. on the combination of Miami Plan and business core course work is permitted to declare a second major

in business. Approval of the second major by the academic department is required.

Basic Requirements: Bachelor of Science in Business

To graduate from Miami University with a Bachelor of Science in Business, you must:

- Earn a minimum of 128 semester hours
- Complete the Miami Plan, the common core, and the required electives
- Complete the requirements of one major field
- Earn at least a 2.00 cumulative g.p.a. in all business courses attempted
- Complete at least 64 semester hours of course work in non-business departments

Common Core of Business Courses
(59-60 semester hours)

All of these:
ACC 221 Introduction to Financial Accounting (3)
ACC 222 Introduction to Managerial Accounting (3)
BLS 342 Legal Environment of Business (3)
BUS 101 Foundations of Business Decision Making (3)
BUS 102 Writing for Business Decision Making (1)
COM 135 Introduction to Public Expression and Critical Inquiry (MPF IIB) (3)
DSC 205 Business Statistics (4)
ECO 201 Principles of Microeconomics (MPF IIC) (3)
ECO 202 Principles of Macroeconomics (MPF IIC) (3)
FIN 301 Introduction to Business Finance (3)
MGT 291 Organizational Behavior and Theory (3)
MGT 302 Introduction to Operations and Supply Chain Management (3)
MIS 235 Information Technology and the Intelligent Enterprise (3)
MKT 291 Principles of Marketing (3)
MTH 151 (MPF V) or 153 Calculus I (MPF V), **or** MTH 249 (MPF V) or 251 Calculus II (4-5)

FSB Senior Capstone Experience (3)
International course requirement (8)
Diversity requirement (3)

Other Electives

You are encouraged to use the remaining hours in your program to broaden your educational base with courses from other divisions of the university, especially in the College of Arts and Science, and/or to supplement your business programs with additional business courses beyond your major requirements. Students enrolled in a four-year bachelor's degree program in business may apply a maximum of 12 credit hours earned in business technology courses to the degree. Business technology courses, however, do not qualify as either professional or **nonprofessional** electives.

If you hold an **associate's** degree in business technology and wish to earn credit toward a B.S. in Business, you may want to inquire about proficiency examinations in subjects covered in your business technology courses. Consult with the appropriate business school department on the Oxford campus.

Suggested Course Pattern: Bachelor of Science in Business

Freshman year
BUS 101 Foundations of Business Decision Making (3)
BUS 102 Writing for Business Decision Making (1)
CSE 148 Business Computing (or equivalent) (3)
MTH 151 Calculus I (or equivalent) (MPF V) (4-5)
Foundation courses (15-21)
Electives (0-6)

Sophomore year
ACC 221 Introduction to Financial Accounting (3)
ACC 222 Introduction to Managerial Accounting (3)
COM 135 Public Expression and Critical Inquiry (MPF IIB) (3)
DSC 205 Business Statistics (4)
ECO 201 Principles of Microeconomics (MPF IIC) (3)
ECO 202 Principles of Macroeconomics (MPF IIC) (3)
MGT 291 Organizational Behavior and Theory (3) or
MKT 291 Principles of Marketing (3)
MIS 235 Information Technology and the Intelligent Enterprise (3)
Foundation, Thematic Sequence, diversity requirement and electives (7)

Junior year
BLS 342 Legal Environment of Business (3)
FIN 301 Introduction to Business Finance (3)
MGT 302 Introduction to Operations and Supply Chain Management (3)
MKT 291 Principles of Marketing (3) or
MGT 291 Organizational Behavior and Theory (3)
International requirement (8)
Foundation, Thematic Sequence, major, and electives (17)

Senior year
FSB Senior Capstone (MP) (3)
Major and electives (29)

Major Programs: School of Business

Accountancy- Bachelor of Science in Business

For information, contact the Department of Accountancy, 3094 FSB (513-529-6200).

The department's mission is to have nationally recognized bachelor's and master's degree programs that provide students with the lifelong ability to seek and acquire accounting and business knowledge and translate it into responsible action in a competitive environment. The Department of Accountancy has been accredited by the Association to Advance Collegiate Schools of Business International since 1984.

The bachelor's degree program provides a general understanding of multiple areas of accounting and related skills to prepare graduates for entry-level positions that require only an undergraduate degree and graduate programs.

The master's degree program provides an in-depth understanding in selected areas of accounting and business and related skills to prepare graduates for entry-level positions that require more than a bachelor's degree.

Four- and Five-Year Programs

Students majoring in accountancy have two options.

One option is the four-year program. Earn your bachelor's degree, and start a career or enter a graduate program at another university. Students planning to take the CPA exam in Ohio and in most other states are required to have 150 hours of education with at least a baccalaureate degree. This requires additional education beyond the requirements for graduation from Miami.

Another option is the five-year program. Earn your bachelor's degree, and then continue through a fifth year to earn a Master of Accountancy degree. After completing the program, you are qualified to sit for the CPA examination in the state of Ohio and most other states that have adopted the 150 hour education requirement. Please note: The graduate program is highly selective; you must apply to the Graduate School for admission to the Master of Accountancy program during your senior year. See the Miami Graduate Bulletin for the Master of Accountancy program requirements.

Special Curriculum Requirements

Students must earn at least a cumulative 2.00 g.p.a. in all accountancy courses attempted at Miami. Students must also complete at least four required junior or senior-level accountancy courses at Miami.

Program Requirements

All of these:
ACC 321 Intermediate Financial Accounting (3)

ACC 333 Managerial Cost Accounting (3)
ACC 343 Federal Income Tax Accounting (3)
ACC 361 Modeling Business Processes in Accounting Information Systems (3)

One of these:
ACC 422 Financial Accounting Research (3)*
ACC 433 Management Accounting for Processes (3)

One of these:
ACC 452 Internal Auditing (3)
ACC 453 Financial Statement Auditing (3)*

Professional electives:
At least six semester hours, including at least one course from a business department other than accountancy.

* Prerequisite for Master of Accountancy program.

Business-Economics- Bachelor of Science in Business

For information, contact the Department of Economics, 2054 FSB (513-529-2836).

This curriculum is for students primarily interested in economics but who also desire a broad background in business. It helps you understand objectives and functions of a private enterprise economy, fundamentals of economic analysis, and how to integrate economic principles with various areas of business administration. The program also teaches how to use economic analysis as a major tool in reaching independent, well-considered judgments.

Course work involves both required theory courses and electives. Theory courses provide common analytical background of modern economics and serve to build analytical skills. The generous number of electives allows you to pursue different fields, depending on your interests and educational background.

Honors in Economics

- To receive departmental honors in economics, you must meet all of the following requirements:
- Completion of ECO 315 and ECO 317 with at least a 3.50 g.p.a. in this sequence. If you have not completed this requirement by the end of your junior year, you will not be permitted to enroll in ECO 480-482 except as approved by the honors coordinator.
- Completion of ECO 480-482 with at least a 3.50 g.p.a.
- Attainment of a minimum 3.50 g.p.a. for all economics courses.
- Completion of a minimum of 30 hours of economics including ECO 311 and two additional courses other than ECO 480-482 for which ECO 315 or ECO 317 (or both) is a prerequisite.

It is highly recommended that ECO 311 be completed by the end of your junior year.

Special Curriculum Requirements

The department requires all economics majors to complete at least nine hours of advanced economics (above 300 level) at Miami, including ECO 315 and 317. Any transfer credit exception for these two courses must be approved by the director of undergraduate studies in the department.

Program Requirements

All of these:
ECO 311 Examining Economic Data and Models (3)
ECO 315 Intermediate Microeconomic Theory (3)
ECO 317 Intermediate Macroeconomic Theory (3)

Electives:
Fifteen additional hours in economics, at least six of those hours must be in courses that require ECO 315 and/or ECO 317 as prerequisite(s).

At least nine hours of advanced economics (300-level and above) as well as ECO 315 and ECO 317 must be taken at Miami. Up to three hours of Summer Scholar credit can be applied toward the 15 hours of advanced economics. Exceptions must be approved by the director of undergraduate studies.

G.P.A. requirement:
You must achieve at least a 2.00 g.p.a. in all economics courses taken.

Finance- Bachelor of Science in Business

For information, contact the Department of Finance, 2053 FSB (513-529-1560).

This major teaches theoretical and practical aspects of financial management. The general objectives are to teach the principles of finance, to explain how financial techniques can solve some of society's most important problems, and to prepare you for future responsibilities in financial management.

Course offerings prepare you to work in the finance division of a business firm; to enter the securities field in either a brokerage or investment analysis capacity; to enter the real estate business in sales or appraisal; to enter the insurance business in the fields of financial planning, property, or casualty insurance; or to pursue a career in estate planning or trust administration. In addition, non-business students are offered service courses in personal finance and in law and the legal process.

Upon completion of the appropriate finance courses, and upon meeting specified non-academic requirements, you may qualify to sit for examinations for licensing and professional designations in the areas of insurance, investments, and real estate.

Special Curriculum Requirements

All students majoring in finance must complete at least 12 elective hours of advanced finance (FIN) courses above 301, 302, and 401. ESP 306 and all Capstone courses cannot be used as electives. You must achieve at least a 2.00 g.p.a. in all finance courses taken.

The Department of Finance requires students majoring in finance to complete at least 12 elective hours of finance (FIN) courses at Miami.

Program Requirements

All of these:
ACC 321 Financial Accounting I (3) or
ACC 333 Managerial Cost Accounting (3) or
ACC 343 Federal Income Tax Accounting (3) **or**
ACC 383 Comparative Accounting (4)
ECO 301 Money and Banking (3)
FIN 302 Intermediate Financial Management (3)
FIN 401 Principles of Investments and Security Markets (3)

Twelve semester hours of finance (FIN) electives (exclusive of ESP 306 and all Capstone Experience courses).

Interdisciplinary Business Management- Bachelor of Science in Business

For information, contact the Student Services Office 1022 FSB (513-529-1712).

This curriculum is available to the business student whose career goals require a program that covers the broad area of business with an interdisciplinary focus. Beyond the business core taken by all business majors, this major features an advanced core of classes centered on economic, legal, managerial, and sales aspects of the business transaction. Students complete the major by taking added courses in one of three interdisciplinary areas of business: business legal studies, entrepreneurship, or international business.

This major is appropriate for the student who wishes to postpone specialization, the student who wants to display a strong interest in the international dimensions of business, the pre-law student who wishes to take pre-legal training in business,

or the entrepreneur who plans to organize and operate their own business.

Program Requirements

All of these:
BLS 442 Commercial Law (3)
MGT 303 Human Resource Management (3)
MKT 325 Consumer Behavior (4)

Select and complete one of the following tracks:

Business Legal Studies
Both of these:
BLS 464 International Business Law (3)
BLS 437 Cyberlaw (3)

Minimum of 8 hours from:
ACC 343 Federal Income Tax Accounting (3)
BLS 443 Property Law (3)
BLS 462 Estates, Wills, and Trusts (3)
BLS 465 Ethics, Law, & Business (3)
BLS 477 Independent Study in Legal Research (3)
ECO 325 Economic Analysis of Law (3)
ECO 385 Government and Business (3)
MGT 402 Employment Law (3)
POL/WMS 347 Women and the Law (3) or
POL 352 Constitutional Law and Politics (3) **or**
POL 353 Constitutional Rights and Liberties (3) **or**
POL 363 Administrative Law (3)

Entrepreneurship
Both of these:
ESP 366 Imagination and Entrepreneurship (3)
ESP 467 Entrepreneurship: New Ventures (4)

Minimum 8 Hours from:
ESP 306 Financial Aspects of Entrepreneurial Ventures (3)
ESP 311 Entrepreneurial Marketing (3)
ESP 461 Small/Emerging Enterprise Consulting (3)
ESP 464 Social Entrepreneurship (3)
ESP 469 Entrepreneurship in Complex Organizations (3)
ESP 477 Independent Study in Entrepreneurship (3)
ESP 481 Technology, Products, and Ventures (3)
ESP 490 Special Topics in Entrepreneurship (1-3; maximum 3)

International Business
Both of these:
BUS 371 International Business (3) or
BUS 373 International Business (3)
ECO 344 International Economic Relations (3)

Minimum 8 Hours from:
ACC 383 Comparative Accounting (4)
BLS 464 International Business Law (3) or
BLS 483 Comparative International Law (4)
BUS 420 International Studies Programs (2; maximum 2)
FIN 417 International Business Finance (3)
MGT 304 Cross-Cultural Management (3)
MKT 425 Global Marketing (4)

Management and Leadership- Bachelor of Science in Business

For information, contact the Department of Management, 3056 FSB (513-529-4215).

The major in management and leadership prepares graduates to manage and lead individuals, teams, and projects in a variety of contexts across all functional areas of business in profit and not-for-profit environments. The diversified course of study develops graduates for positions in management, human resources, management development, training, change leadership, employee benefits, compensation, cross-cultural management, public sector management, consulting, small business, and labor relations. The content, skills, and practices learned in management and organizations are transferable across many industries, functions and roles. In addition, students seeking careers specializing in the human resources function can select courses that directly specialize their training.

Program Requirements

All of these:
MGT 303 Human Resource Management (3)
MGT 304 Cross Cultural Management (3)
MGT 474 Human Capital Metrics (3)
MGT 475 Organizational Change Management (3)

Required electives. Select four of these:
MGT 381 Managerial Communication and Consulting (3)
MGT 402 Employment Law (3)
MGT 404 Compensation Management (3)*
MGT 405 Labor Relations and Conflict Management (3)
MGT 406 Staffing Organizations (3)*
MGT 414 Motivation and Work (3)
MGT 415 Leadership and Learning (3)
MGT 463 Employee Benefits (3)
MGT 490 Contemporary Issues (3)*

* offered occasionally

Management Information Systems- Bachelor of Science in Business

For information, contact the Department of Decision Sciences and Management Information Systems, 3095 FSB (513-529-4826).

The management information systems (MIS) major provides graduates with managerial and technical skills critical to directing and controlling the information resources of an organization. Graduates of this program learn fundamental information and communication theories and technologies such as database theory and management, systems analysis and design, and data communications as well as contemporary topics such as internetworking and world wide web-based technologies for electronic commerce, data and wireless communications, multimedia, data mining and warehousing, knowledge management, and enterprise systems. Emphasis is on structuring and solving business problems by appropriately applying technological resources and information management skills.

Majors begin careers in the MIS field or related areas in positions such as systems analyst, information consultant, web analyst, web designer, information specialist, business consultant, software specialist, system consultant, programmer analyst, system designer, microcomputer specialist, database designer, data communication specialist, and system architect.

Program Requirements

All of these:
MIS 235 Information Technology and the Intelligent Enterprise (3)
MIS 245 Database Systems and Data Warehousing (3)
MIS 281 Building Web-Based Business Applications I (3)
MIS 301 Data Communications in Business (3)
MIS 387 Designing Business Systems (3)
MIS 403 Building Web-Based Business Applications II (3)
MIS 406 IT Project Management (3)

One of these:
MIS 404 Business Intelligence and Knowledge Management (3)
MIS 495 Managing the Intelligent Enterprise (3)

One of these: *The course chosen from this list must be different from that taken to fulfill the requirement above.*
CSE 174 Fundamentals of Programming and Problem Solving (3)
MIS 303 Enterprise Systems (3)
MIS 305 Information Risk Management, Security, and Audit (3)
MIS 385 Applications of Electronic Commerce Technology (3)
MIS 404 Business Intelligence and Knowledge Management (3)
MIS 480 Topics in MIS (3-4)
MIS 495 Managing the Intelligent Enterprise (3)

Marketing- Bachelor of Science in Business

For information, contact the Department of Marketing, 3057 FSB (513-529-3270).

The modern global society is placing an increasing emphasis on marketing knowledge and related skills. Global and domestic corporations' manufacturing, distributing, buying, and selling

significantly shape the standard of living and global economy. This is true for both products and services as well as for-profit and not-for-profit institutions and supply chains.

To prepare students for a career in marketing or as part of a business decision-making team, this program provides courses in: branding, promotion, supply chain management, consumer behavior, marketing research, sales management and personal selling, imagination and creativity, problem solving skills, creating customer value, global marketing, interactive media studies, and guerilla marketing.

Program Requirements

All of these:
MKT 292 Careers in Marketing (1)
MKT 301 Creativity, Innovation, and Decision Making in Marketing (4)
MKT 325 Consumer Behavior (4)
MKT 335 Marketing Research (4)
MKT 405 Creating Customer Value Through Marketing (3)

One of these:
MKT 415 Marketing to Organizations (4)
MKT 419 E-Commerce and the Internet (3)
MKT 425 Global Marketing (4)
MKT 431 Logistics Management (3)
MKT 435 Branding and Integrated Marketing Communications (4)

Select one capstone:
IMS 440 Interactive Media Studies Practicum (4)
MKT 442 Highwire Brand Studio (4)
MKT 495 Marketing Practicum (4)

Supply Chain and Operations Management- Bachelor of Science in Business

For information, contact the Department of Management, 3056 FSB (513-529-4215).

In recent years companies have worked to connect the different areas of their businesses to achieve efficient movement of goods and services to the consumer. Supply chain management fills the gap that exists between departments and connects trading partners to create a smooth flow of information, services, and products through the supply chain.

The supply chain management major combines courses in accountancy, decision sciences, operations management, marketing, logistics and purchasing. The integration of these disciplines allows supply chain management students to understand the interaction among them and how to produce and move goods and services in the most economical way. Students learn practical industry applications with the aid of field trips, guest speakers, and simulations in the classroom.

Program Requirements

All of these:
MGT 432 Purchasing and Materials Management (3)
MGT 451 Operations Planning and Scheduling (3)
MGT 453 Productivity Improvement (3)
MIS 303 Enterprise Systems (3)
MKT 415 Marketing to Organizations (3)
MKT 431 Logistics Management (3)
MGT/MKT 498 Supply Chain Management (3)

Minors

The programs described below are optional minors in business areas. A minor is a specific program to be taken along with a major to complement your skills and increase your career opportunities. More information about minors is in the Other Requirements chapter.

Admission into most Farmer School of Business minors is limited and the respective departments are responsible for managing their enrollments. Some minors are available to students on a first-come, first-served basis or have other entry restrictions or requirements. Therefore, to increase the likelihood of gaining entry into a FSB minor, interested students should contact the department offering the minor as early as possible in their academic careers. Questions can be addressed to the Student Services Office, 1022 FSB (513-529-1712).

The following minors are open only to non-business majors: finance, management and organizations, operations management, risk management and insurance.

Several minors are available to both business majors and non-business majors: arts management, business analytics, business legal studies, decision science in business, economics, entrepreneurship, management information systems, management of information technologies, marketing, and supply chain management.

The international business minor is open only to business majors.

A notation about your completed minor will be on your final grade transcript if you indicate your minor when you apply for graduation. The required semester hours are in parentheses beside each minor.

Important Note: Entry into minors in the School of Business is not guaranteed. Likewise there is no guarantee that courses required to complete a minor will be available on a timely basis.

Arts Management

(18 semester hours)

For entry restrictions and more information contact the Department of Management, 3056 FSB (513-529-4215).

Increased public interest in the arts has created a need for fine arts and business professionals who are prepared for management responsibilities in arts councils, museums, art centers, galleries, orchestras, and theatres.

This minor has two options: one for **business majors** and one for **fine arts majors**. Business majors must plan an individualized program with the arts management adviser in the appropriate department. Fine arts majors must plan courses with the assistance of their business adviser.

Core Requirements (10 hours)

All of these:
CFA 182 Experiencing the Arts (1, repeatable)
CFA 201 Introduction to Arts Management (3)
CFA 340 Arts Management Internship (3)
CFA 410 Advanced Topics in Arts Management (3)

Program Requirements: For Business Majors (9 hours)

Six credit hours from these:
ARC 188 Ideas in Western Architecture (MPF IIA, IIB, H) (3)
ARC 426 Architecture and Society (3)*
ART 181 Concepts in Art (MPF IIA) (3)
ART 185 India and Southeast Asia (MPF IIA, IIB, IIIB, H) (3)
ART 186 China, Korea, and Japan (MPF IIA, IIB, IIIB, H) (3)
ART 187 History of Western Art: Prehistoric to Gothic (MPF IIA, IIB, H) (3)
ART 188 History of Western Art: Renaissance to Modern (MPF IIA, IIB, H) (3)
ART 455 20th Century Design and Culture (3)
MUS 135 Jazz: Its History and Evolution (MPF IIA, IIIA, H) (3)
MUS 185 The Survey of African Music in the Diaspora (3)
MUS 189 Great Ideas in Western Music (MPF IIA, H) (3)
THE 101 Introduction to Theatre: Drama and Analysis (MPF IIA)(3)* **or**
THE 103 Introduction to Theatre: Production and Performance I (MPF IIA)(1)* **or**
THE 104 Introduction to Theatre: Production and Performance II (1)
THE 191 Theatre Appreciation (MPF IIA, H) (3)
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3)
THE 490 Theatre and a Cultural Aesthetic (3)*

At least three credit hours from these:
ART 111 Visual Fundamentals 2-D (3)

ART 121 Beginning Drawing (3)
ART 171 Visual Fundamentals 3-D

Any current music ensemble:
KNH 110A&B Beginning Ballet and Beginning Ballet II (2)
KNH 110G Modern Dance (2)
KNH 110R Jazz (2)
KNH 110S Social Dance - Men (2)
KNH 110T Social Dance - Women (2)
THE 123 Acting for the Non-Major (3)
THE 200 Production and Performance Practicum (1-8)

Program Requirements: For Fine Arts Majors

Complete one of the following series of courses:
Take 3 courses (9 hours) from the following:
ACC 221 Introduction to Financial Accounting (3)
ECO 201 Principles of Microeconomics (3)
ESP 201 Introduction to Entrepreneurship (3)
MGT 111 Introduction to Business (MPF IIC) (3)
MKT 291 Principles of Marketing (3)

or

SB1 Business Institute for Non-Business Students Thematic Sequence:
BUS 301 Macro Concepts in Contemporary Business (3)
BUS 302 Micro Concepts in Contemporary Business (3)
BUS 303 Business Process Integration (3)

or

ESP1 Entrepreneurship in Different Contexts Thematic Sequence:
ESP 311 Entrepreneurial Marketing (3)
ESP 366 Imagination and Entrepreneurship (3)
ESP 469 Entrepreneurship in Complex Organizations (3)

* Capstone

Business Analytics

(22 semester hours)

For information, contact the Department of Decision Sciences and Management Information Systems, 3095 FSB (513-529-4826).

The business analytics minor complements many majors (including all business majors) by providing the managerial, analytical, and technical skills needed to gather data in real-time, store and organize the data, analyze the data using quantitative methods, and use the resulting information to make decisions that will allow an organization to gain competitive advantage. Coursework includes fundamental information technology and statistical concepts, database management and data warehouses, regression analysis in business, optimization of business systems using management science models, analysis of large data sets using data mining techniques, business intelligence, and knowledge management.

Neither BUS or IMS courses can be substituted for the MIS courses listed below.

Program requirements

Required courses:
DSC 205 Business Statistics (4)
DSC 291 Applied Regression Analysis in Business (3)
DSC 321 Quantitative Analysis of Business Problems (3)
DSC 491 Introduction to Data Mining in Business (3)
MIS 235 Information Technology and the Intelligent Enterprise (3)
MIS 245 Database Systems and Data Warehousing (3)
MIS 404 Business Intelligence and Knowledge Management (3)

Business Legal Studies

(21 semester hours)

For information and entry restrictions, contact the Department of Finance, 2053 FSB (513-529-1560). The business legal studies minor is open to all university students.

Increased sensitivity to the legal implications of doing business has created the need for greater managerial understanding of the legal process and its relationship to the marketplace. This minor allows the business and non-business major to develop a greater sensitivity to issues of business liability, governmental regulation of business, public policy, and the origin and evolution of law, especially in its interfacing with commercial activities.

Program Requirements

Both of these (6 semester hours):
BLS 342 Legal Environment of Business (3)*
BLS 442 Business Associations and Commercial Law (3)*

At least two of these (6 semester hours minimum, 15 hours maximum; include one course, noted with an asterisk (*), to fulfill Thematic Sequence):
ACC 343 Federal Income Tax Accounting (3)
BLS 437 Cyberlaw (3)
BLS 443 Property Law (3)*
BLS 462 Estates, Wills, and Trusts (3)*
BLS 464 International Business Law (3)*
BLS 465 Ethics, Law, and Business (3)**
BLS 483 Comparative International Business Law (4)
ECO 325 Economic Analysis of the Law (3)
ECO 385 Government and Business (3)*
MGT 402 Legal Environment of Personnel and Labor Relations (3)*
* Satisfies Miami Plan Thematic Sequence FIN 1 Law and Commerce.
** Miami Plan Capstone Experience course.
† Students may not receive credit for both BLS 464 and BLS 483

Remaining hours from these:
ECO 331 Public Sector Economics (3)
ECO 434 Environmental Economics (3)
ECO 451 United States Economic History (3)
ECO 462 Economics of Compensation, Unionization, and Discrimination (3)
IES 431 Principles of Environmental Science (3)
IES 450 Environmental Law (3)
HST 362 The Era of the American Revolution (3)
HST 363 The Early American Republic 1783-1815 (3)
HST 368 20th Century America 1900-1933 (3)
HST 369 20th Century America Since 1933 (3)
HST 382 Women in American History (3)
HST 387 U.S. Constitution to 1865 (3)
HST 388 U.S. Constitution Since 1865 (3)
HST 397 American Environmental History (3)
MGT 303 Human Resource Management (3)
MGT 402 Employment Law (3)
MGT 405 Labor Relations and Conflict Management (3)
MKT 325 Consumer Behavior (3)
PHL 331 Political Philosophy (4)
PHL 335 Philosophy of Law (4)
POL 302 Classical Political Philosophy (4)
POL 303 Modern Political Philosophy (4)
POL 346 Global Gender Politics (3)
POL 352 Constitutional Law and Politics (4)
POL 353 Constitutional Rights and Liberties (4)
POL 363 Administrative Law (3)
POL 382 International Law (3)
SOC 412 Sociology of Law (3)

Decision Sciences in Business

(18 semester hours)

For information, contact the Department of Decision Sciences and Management Information Systems, 3095 FSB (513-529-4826).

Use of quantitative, statistical, and process improvement methodology to support management decision making is growing in all areas of business. This minor provides an introduction to basic decision sciences concepts and to major quantitative and statistical methods employed in support of decision making.

All courses for this program are considered professional electives for School of Business majors, so business students can usually complete the minor without taking more than the 128 semester hours needed for graduation.

This minor is available to all university students; contact the department for an adviser. Application to receive the decision sciences in business notation on your grade transcript must be made when applying for graduation.

Program Requirements

Core courses (9 semester hours)
DSC 205 Business Statistics (4)
MTH 151 Calculus I (MPF V) (5)

Advanced courses (6 semester hours)
DSC 291 Applied Regression Analysis in Business (3)
DSC 321 Quantitative Analysis of Business Problems (3)

Electives. At least 3 semester hours from these:
DSC 331 Quantitative Methods of Decision Making (3)
DSC 333 Nonparametric Methods in Business (3)
DSC 365 Statistical Quality Control (3)
DSC 421 Computer Modeling in Business (3)
DSC 432 Survey Sampling in Business (3)
DSC 444 Business Forecasting (3)
DSC 447 Analysis of Multivariate Business Data (3)
DSC 480 Topics in Decision Sciences (1-3)
DSC 491 Introduction to Data Mining in Business (3)

Economics

(18 semester hours)

For information, contact the Department of Economics, 2054 FSB (513-529-2836). The economics minor is open to all university students.

This minor is designed for students who are interested in exploring how their major area of specialization connects to the workplace and the economy. Students who are preparing for law school or a Master of Business Administration (M.B.A.) program will find this minor valuable.

The 18 hours of economics must be completed with at least a 2.00 g.p.a. Either ECO 315 or ECO 317 must be taken at Miami.

Program Requirements

All of these (9 semester hours):
ECO 201 Principles of Microeconomics (MPF IIC) (3)
ECO 202 Principles of Macroeconomics (MPF IIC) (3)
ECO 315 Intermediate Microeconomic Theory (3) **or**
ECO 317 Intermediate Macroeconomic Theory (3)

Nine additional semester hours of advanced economics (300-level and above), which may include the other intermediate theory course.

Electives (9 semester hours)

Entrepreneurship

(18 semester hours)

For information, contact the Page Center for Entrepreneurship, 2078 FSB (513-529-1221).

This interdisciplinary minor exposes students to the mindset and behavior of successful entrepreneurs as well as the principles and concepts associated with entrepreneurship in private, social, and public ventures. The program complements majors in all of Miami's academic divisions and promotes the applications of entrepreneurial concepts in support of each student's passion, regardless of major. Upon completion of the minor, students will be able to: (a) recognize entrepreneurial opportunities; (b) assess the risk and reward associated with each opportunity; (c) create the appropriate plans to pursue the opportunity; and (d) appreciate the role entrepreneurial thinking and behavior plays in their personal and professional lives, and in society at-large.

The entrepreneurship minor is open to all university students and can be used to satisfy a Thematic Sequence by non-business majors.

Program Requirements:

All of these:
ESP 306 Financial Aspects of Entrepreneurial Ventures (3)
ESP 311 Entrepreneurial Marketing (3)
ESP 366 Imagination and Entrepreneurship (3)
ESP 467 Entrepreneurship: New Ventures (3)* **or**
ESP 461 Small/Emerging Enterprise Consulting (3)

Six hours from among the following:
BLS 342 Legal Environment of Business (3)
ESP 201 Introduction to Entrepreneurship (3)
ESP 461 Small/Emerging Enterprise Consulting (3)
ESP 464 Social Entrepreneurship (3)
ESP 469 Entrepreneurship in Complex Organizations (3)
ESP 477 Independent Study (up to 3 hours)
ESP 481 Technology, Products, and Ventures (3)
ESP 490 Special Topics in Entrepreneurship (up to 3 hours)
IMS 333 New Economy: eBusiness, Entrepreneurship and Venture Capital (3)

* Capstone

Finance

(18 semester hours)

For information, contact the Department of Finance, 2053 FSB (513-529-1560).

This minor, open to non-business majors only, provides in-depth study of financial management and introduces financial topics of current importance. The courses provide financial management tools and techniques relevant both to corporate finance and investments. This minor allows you to develop and integrate numerous skills and techniques relevant to modern finance.

All 18 semester hours must be taken at Miami University. A minimum 2.00 g.p.a. is required for all courses in the minor.

Program Requirements

All of these:
ACC 221 Principles of Financial Accounting (3)
ECO 301 Money and Banking (3)
FIN 301 Introduction to Business Finance (3)*
FIN 401 Principles of Investments (3)**

Six semester hours from these:
FIN 302 Intermediate Financial Management (3)
FIN 402 Fixed-Income Portfolio Management (3)
FIN 403 Portfolio Management (3)
FIN 408 Commercial Bank Management (3)
FIN 417 International Business Finance (3)
FIN 475 Financial Policies of Corporations (3)

* Requires prerequisites: ECO 201, ECO 202, ACC 221, and ACC 222.
** Requires prerequisite: DSC 205.

General Business

(37 semester hours)

For information contact the undergraduate advising office, 1022 FSB (513-529-1712).

The minor in General Business offers students a broad introduction to the decision making process across the functional areas of business and also extends the stakeholder framework with an emphasis on the integrated nature of business processes. The minor provides students with the foundational knowledge necessary for understanding how businesses function; it also helps to develop a set of skills that will prepare students to function effectively within businesses.

Program requirements:

ACC 221 Introduction to Financial Accounting (3)
ACC 222 Introduction to Managerial Accounting (3)
BUS 101 Foundations of Business Decision Making (3)
BUS 102 Writing for Business Decision Making (1)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)

DSC 205 Business Statistics (4)
MIS 235 Information Technology and the Intelligent Enterprise (3)
MTH 151 Calculus I (5) or equivalent

All of the following (taken concurrently):
BUS 351 Business in Context: Government and the Law (2)
BUS 352 Business in Context: Inside the Enterprise - Investing in Human Capital (2)
BUS 353 Business in Context: Beyond the Enterprise (3)
BUS 354 Business in Context: The Role and Importance of Financial Capital (2)

International Business

(21 semester hours)

For information, contact the undergraduate advising office, 1022 FSB (513-529-1712).

This minor, open only to business majors, offers a concentration of courses providing a foundation for a career in international business. A core of courses from Farmer School of Business and electives from other disciplines focus on international topics. *This minor does not fulfill the thematic sequence requirement*. However, courses have been identified in the list of "Acceptable Elective Courses" for the international business minor that either fully or partially satisfy a thematic sequence. A minimum of 21 hours, including the core requirements, with at least a C average is required.

Approved General Electives

You are required to take a minimum of six hours of approved general electives. The six hours cannot be used to fulfill both the Miami Plan Foundation requirement and the international business minor requirements. Electives must be non-business courses; one may be an upper level language course that focuses on culture and literature. Language courses that stress conversation and grammar cannot be used as general electives. The suggested electives are recommended, but by no means comprise the extent of courses that would be useful preparation for international business. Some courses offered on the Luxembourg campus (MUDEC) may be used as electives.

Students usually design their own concentration of electives; a list of all approved electives is available in the advising office. If there is a course(s) you have taken at Miami or another university that you feel qualifies as an approved general elective, please petition the International Studies Committee for approval. Forms are located in the advising office, 103 Laws.

Language Preparation

This minor requires foreign language skills through the 201 level or above at an accredited American university or a school associated with an accredited American university. *This requirement may not be met through proficiency or AP credit.* The College of Arts and Science provides courses for preparation in a variety of foreign languages.

Study Abroad

Miami offers international education at the John E. Dolibois European Campus in Luxembourg (MUDEC), where programs have been available since 1968. Students may also participate in the International Student Exchange Program (ISEP) and choose from institutions in more than 30 countries. The Farmer School of Business offers international summer programs for two-, three-, or six-week terms. Students study FSB courses and international business in Europe, Asia, and Latin America, take field trips to other countries, and meet with business executives and government officials.

Program Requirements

All of these:
BUS 371 International Business (3) or
BUS 373 International Business (3)
Option A or B below (9)
Foreign language (3)
Approved general electives (6)

Option A
This one:
ECO 344 International Economic Relations (3)

Two of these:
ACC 383 Comparative Accounting (4)
BLS 464 International Business Law (3)
FIN 417 International Business Finance (3)
MGT 304 Cross Cultural Management (3)
MKT 425 Global Marketing (3)

And/or any business courses, approved in advance by the FSB International Studies Committee such as those offered at the Dolibois European Campus in Luxembourg or an approved international summer program (3-6).

Option B
This one:
ECO 441 International Trade (3)

One of these:
ECO 442 International Monetary Relations (3)
FIN 417 International Business Finance (3)

One of these:
ACC 383 Comparative Accounting (4)
BLS 464 International Business Law (3)
MGT 304 Cross Cultural Management (3)
MGT 375 Organizational Management and Leadership in Russia (3)
MKT 425 Global Marketing (4)

And/or any business courses, approved in advance by the FSB International Studies Committee such as those offered at the Dolibois European Campus in Luxembourg or an approved international summer program (3-6).

Management

(19 semester hours)

For information, contact the Department of Management, 3056 FSB (513-529-4215).

This minor is available to any nonbusiness major, with the exception of Engineering Management, and focuses on the management of human and non-human resources. It is designed for majors in the College of Arts and Science, the School of Education, Health, and Society, and the School of Engineering and Applied Science. It also enables a pre-business student who did not enter the Farmer School of Business to apply pre-business courses to a minor. Students can expect to have to take two or three courses for this minor during the summer.

Program requirements:

All of these:
DSC 205 Business Statistics (4) **or**
PSY 293 Introduction to Psychological Statistics (4) **or**
STA 261 Statistics (4) **or**
STA 368 Introduction to Statistics (4)
MGT 111 Introduction to Business (3) **or**
BUS 101 Foundations of Business Decision Making (3)
MGT 291 Introduction to Management & Leadership (3)
MGT 302 Introduction to Operations and Supply Chain Management (3)

Two of these:
ECO 201 Principles of Microeconomics (3)
MGT 303 Human Resource Management (3)
MGT 304 Cross Cultural Management (3)
MGT 402 Employment Law (3)
MGT 404 Compensation Management (3)
MGT 405 Labor Relations and Conflict Management (3)
MGT 406 Staffing Organizations (3)
MGT 414 Motivation and Work (3)
MGT 415 Leadership and Learning (3)
MGT 432 Purchasing and Materials Management (3)
MGT 451 Operations Planning and Scheduling (3)
MGT 453 Quality Management Systems (3)
MGT 463 Employee Benefits (3)

Management and Organizations

(18 semester hours)

For information, contact the Department of Management, 3056 FSB (513-529-4215).

This minor provides students with majors outside the Farmer School of Business an opportunity to enhance their major areas of study by gaining knowledge of management theory and practice. Management of people and organizations is a broadly transferable skill which will help any major supervise others, integrate diverse individuals and diverse functions, and develop successful individuals and teams to meet organizational goals.

To be assured of enrollment into the required courses for this minor, students should formally declare the minor by obtaining the appropriate signature from the Department of Management. In order to guarantee that all declared minors have access to the courses, the minor has an enrollment limit; therefore *early declaration is* advised.

Program Requirements

All of these:
MGT 111 Introduction to Business (MPF IIC) (3)
MGT 291 Organizational Behavior and Theory (3)
MGT 303 Human Resources Management (3)

Three of these:
MGT 304 Cross Cultural Management (3)
MGT 381 Managerial Communication and Consulting (3)
MGT 402 Employment Law (3)
MGT 404 Compensation Management (3)*
MGT 405 Labor Relations and Conflict Management (3)
MGT 406 Staffing Organizations (3)*
MGT 414 Motivation and Work (3)
MGT 415 Leadership and Learning (3)
MGT 463 Employment Benefits (3)

* offered occasionally

Management Information Systems

(18 semester hours)

For information, contact the Department of Decision Sciences and Management Information Systems, 3095 FSB (513-529-4826).

The management information systems (MIS) minor, open to all university students, provides students with other majors the managerial and technical skills critical to understanding, using, and applying information technology within organizations. The MIS minor gives students a strong background in information and communications technologies, database theory and application, and enterprise systems. Additional coursework may focus on programming and development skills, project management, E-commerce and web development, or other current topics such as data and wireless communications. Emphasis is on structuring and solving business problems by appropriately applying technological resources.

A minimum 2.00 g.p.a. is required for all courses in the minor. You must contact a management information systems advisor in the department to have the minor noted on your grade transcript when applying for graduation.

Neither BTE nor IMS courses can be substituted for courses listed below.

Program Requirements

Required courses: (6 hours)
MIS 235 Information Technology and the Intelligent Enterprise (3)
MIS 245 Database Systems and Data Warehousing (3)

One of the following: (3 hours)
MIS 303 Enterprise Systems (3)
MIS 404 Business Intelligence and Knowledge Management (3)

Two additional MIS courses from the following:
(the courses chosen from this list must be different from those taken to fulfill the requirements above) (6 hours)
MIS 281 Building Web-Based Business Applications I (3)
MIS 301 Data Communications in Business (3)
MIS 303 Enterprise Systems (3)
MIS 305 Information Technology, Risk Management, Security and Audit (3)
MIS 385 Applications of Electronic Commerce Technology (3)
MIS 387 Designing Business Systems (3)
MIS 403 Building Web-Based Business Applications II (3)
MIS 404 Business Intelligence and Knowledge Management (3)
MIS 406 IT Project Management (3)
MIS 480 Topics in MIS (3)
MIS 495 Managing the Intelligent Enterprise (3)

One additional courses from the following electives:
(the course chosen from this list must be different from those taken to fulfill any of the requirements above) (3 hours)
ACC 361 Modeling Business Processes in Accounting Information Systems (3)
CSE 174 Fundamentals of Programming and Problem Solving (3)
DSC 421 Computer Modeling in Business (3)
ENG 313 Introduction to Technical Writing (3)
GEO 441 Geographic Information Systems (3)
IMS 440 Interactive Media Studies Practicum (4)
MGT 474 Human Capital Metrics (3)
MGT 475 Organizational Change Management (3)
MIS 281 Building Web-Based Business Applications I (3)
MIS 301 Data Communications in Business (3)
MIS 303 Enterprise Systems (3)
MIS 305 Information Technology, Risk Management, Security and Audit (3)
MIS 385 Applications of Electronic Commerce Technology (3)
MIS 387 Designing Business Systems (3)
MIS 403 Building Web-Based Business Applications II (3)
MIS 404 Business Intelligence and Knowledge Management (3)
MIS 406 IT Project Management (3)
MIS 412 Communicating Through Multimedia (3)
MIS 480 Topics in MIS (3-4)
MIS 495 Managing the Intelligent Enterprise (3)

Management of Information Technologies

(18 semester hours)

For information, contact the Department of Decision Science and Management Information Systems, 3095 FSB (513-529-4826).

Modern digital enterprises have created a strong demand for individuals who understand the contributions of information technologies to their success in a rapidly changing economic landscape that is global in scope. This unique minor meets this demand by addressing the needs of two distinct groups of students.

The first group consists of students with a strong background in computing or engineering (non-business majors) who need a firm grasp of important business concepts and practices. The business courses they will take have been carefully selected to provide knowledge in the key aspects of the functions in a business enterprise. The addition to their technical skills of this insight into business will enable these students to be capable of filling a broad array of technical positions in any firm involved with computing, information, and digital technologies.

The second group comprises business students (students not in the School of Engineering and Applied Science) who need a solid foundation in computing or engineering technologies. The minor provides for courses in these areas along three separate tracks: a *computer science track* (for MIS majors only), a *computer engineering track*; and an *electrical engineering track*. These students can aspire to occupying a wide range of managerial positions that require knowledge of business processes as well as computing and digital technologies.

Neither BTE nor IMS courses can be substituted for the MIS courses listed below.

Program Requirements:

Non-Business Majors (18 Semester Hours)
All of these:
ACC 222 Introduction to Managerial Accounting (3)
MGT 302 Introduction to Operations and Supply Chain Management (3)
MIS 235 Information Technology and the Intelligent Enterprise (3)

Management elective. One of these:
MGT 475 Organizational Change Management (3)
MIS 303 Enterprise Systems (23)
MIS 404 Business Intelligence and Knowledge Management (for CSE majors only) (3)

MKT 431 Logistics Management (3)

Programming elective. One of these:
CSE 271 Object-Oriented Programming (3)
MIS 281 Building Web-Based Business Applications I (3)

Project Management elective. One of these:
EGM/MGT 311 Project Management (3)
MIS 406 IT Project Management (for CSE majors only) (3)

Students not in the School of Engineering and Applied Science

Computer science track *(MIS majors only) (18 semester hours)*
All of these:
ACC 361 Modeling Business Processes: Accounting Information Systems (3)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)

Computer science elective. One of these:
CSE 274 Data Abstraction and Data Structures (3)
CSE 278 Computer Architecture (3)
CSE 283 Data Communication and Networks (3)

Management elective. One of these:
MGT 475 Organizational Change Management (3)
MKT 431 Logistics Management (3)

Other business electives. One of these:
BLS 465 Ethics, Law, and Business (3)
DSC 365 Statistical Quality Control (3)
ESP 481 Technology, Products, and Ventures (3)
MGT 414 Motivation and Work (3)
MGT 415 Leadership, Power, and Decision Making (3)
MGT 453 Productivity Improvement (3)
MIS 495 Managing the Intelligent Enterprise (3)

Computer engineering track *(18 semester hours)*
All of these:
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)
ECE 287 Digital System Design (4)
ECE 387 Embedded Systems Design (3)

Management elective. One of these:
MGT 475 Organizational Change Management (3)
MIS 303 Enterprise Systems (3)
MIS 404 Business Intelligence and Knowledge Management (3)
MKT 431 Logistics Management (3)

Other business electives. One of these:
ACC 361 Modeling Business Practices: Accounting Information Systems (3)
BLS 465 Ethics, Law, and Business (3)
DSC 365 Statistical Quality Control (3)
EGM/MGT 311 Project Management (3)
ESP 481 Technology, Products, and Ventures (3)
MGT 414 Motivation and Work (3)
MGT 415 Leadership, Power, and Decision Making (3)
MGT 453 Productivity Improvement (3)
MIS 495 Managing the Intelligent Enterprise (3)

Electrical engineering track *(18 semester hours)*
All of these:
CSE 174 Fundamentals of Programming and Problem Solving (3)
ECE 205 Electric Circuit Analysis I (3)
ECE 287 Digital System Design (4)
ECE 304 Electronics (3)

Management elective. One of these:
MGT 475 Organizational Change Management (3)
MIS 303 Enterprise Systems (3)
MIS 404 Business Intelligence and Knowledge Management (3)
MKT 431 Logistics Management (3)

Other business electives. One of these:
ACC 361 Modeling Business Practices: Accounting Information Systems (3)
BLS 465 Ethics, Law, and Business (3)
DSC 365 Statistical Quality Control (3)
EGM/MGT 311 Project Management (3)
ESP 481 Technology, Products, and Ventures (3)
MGT 414 Motivation and Work (3)
MGT 415 Leadership, Power, and Decision Making (3)
MGT 453 Productivity Improvement (3)
MIS 495 Managing the Intelligent Enterprise (3)

Marketing

(24 semester hours)

For information, contact the Department of Marketing, 3057 FSB (513-529-3270).

This minor, open to all university students, prepares students for a career in marketing or as part of a business decision-making team. The modern global society is placing an increasing emphasis on marketing knowledge and related skills. Global and domestic corporations' manufacturing, distribution, and buying and selling operations significantly shape the standard of living and the global economy. This is true for both for-profit and not-for-profit institutions and supply chains.

Program Requirements

Prerequisites
DSC 205 Business Statistics (4) **or**
STA 261 (MPF V) or STA 368 (4)
ECO 201 Principles of Microeconomics (MPF IIC) (3)
MGT 111 Introduction to Business (MPF IIC) (3) (non-business majors only)

All of these:
MKT 291 Principles of Marketing (3)
MKT 325 Consumer Behavior (4)
MKT 405 Creating Consumer Value Through Marketing (3)

One of these:
MKT 415 Marketing to Organizations (4)
MKT 425 Global Marketing (4)
MKT 435 Branding and Integrated Marketing Communications (4)

Risk Management and Insurance

(34 semester hours)

For information, contact the Department of Finance, 2053 FSB (513-529-1560).

This minor, open only to non-business majors, provides an in-depth study of the risk management process and operational, legal, moral, and social issues surrounding life and health, property, and casualty insurance industries along with the employee benefits area. The financial consequences of being exposed to pure risk are explored for individuals and businesses. Tools for handling these exposures are critically analyzed along with the process of implementing financial and other strategies to prepare for possible outcomes.

Program Requirements

All of these:
ACC 221 Principles of Financial Accounting (3)
FIN 301 Introduction to Business Finance (3)
FIN 351 Principles of Insurance (3)*
FIN 451 Risk Management and Insurance (3)*
FIN 452 Advanced Life Insurance and Personal Financial Planning (3)*
FIN/MGT 463 Employee Benefits (3)*

* Finance majors cannot use these courses to satisfy both the finance major and this minor requirements.

Supply Chain Management

(21-22 semester hours)

For information, contact the Department of Management, 3056 FSB (513-529-4215).

A recent study cited supply chain management (SCM) as one of the three most important management practices for determining world class performance. This minor, open to all university students, provides an understanding of SCM as a key business strategy, and it develops tools for integrating key functions of procurement, production, marketing, logistics, accounting, and MIS, leading to successful operation of the entire SCM process. You will be exposed to career opportunities in this field.

Program Requirements

Business foundation courses. All of these:
DSC 205 Business Statistics (4) **or**

STA 261 Statistics (4) **or**
STA 301 Applied Statistics (3) **or**
STA 368 Introduction to Statistics (4)
MGT 302 Introduction to Operations and Supply Chain Management (3)
MGT 432 Purchasing and Materials Management (3)
MGT/MKT 498 Supply Chain Management (3)
MKT 291 Principles of Marketing (3)
MKT 431 Logistics Management (3)

Focus elective. One of these:
MGT 451 Operations Planning and Scheduling (3)
MGT 453 Productivity Improvement (3)
MIS 303 Enterprise Systems (3)
MKT 415 Marketing to Organizations (4)

Certificates

China Business Program

The China Business Program is designed to better prepare students for entry into an increasingly international workplace by developing an understanding of the culture and customs of China through language study, overseas experience and associated coursework. The program will help develop students' critical thinking and contextual skills by allowing students to study and personally experience the rapid pace of economic development and social change in China and the Far East. The program is designed for students who wish to pursue a career in business and who have a strong interest in China and the Far East.

For the courses taken as part of the China Business Program, students must earn a GPA of at least 2.0. Students must contact the China Business Program coordinator in the Farmer School of Business to have this program certificate noted on their academic transcript when applying for graduation. The program contains an embedded Liberal Education Thematic Sequence.

Program requirements

Chinese Language:
Two years or more of Chinese

Note: Students must complete CHI 202 and may choose to take higher levels.

Cultural Experience:
Completion of an approved***** thematic sequence or minor related to China
ART 7 East Asian Art History
REL 3 Religion and Philosophy of Buddhist Asia
STD Self Designed Thematic Sequence (approved by LEC)*****
Chinese Minor
East Asian Studies Minor
International Business Minor with approved***** electives

Off-shore Experience:
Junior semester in China

Any one of the following:
Two approved***** summer study abroad programs, such as the Summer Intensive Chinese Program or the FSB's Far East or Pacific Rim Summer International program.
One approved***** summer program and an approved internship experience. Completion of an approved, business related internship in China or related to China (BUS 330 Professional Practice).
A second semester of study in China
***** All items marked (*****) for approval must be approved by the Jennifer J. Petters Chair in Asian Business.

Business Coursework:
Completion of a B.S. in Business and completion of two one-credit China Business Seminars:
BUS 131 China Business Seminar I (1)
BUS 231 China Business Seminar II (1)

The School of Education, Health and Society

Office of Student Services
202 McGuffey Hall
Phone: 513-529-6317

Office of Student Teaching and Field Placement
202 McGuffey Hall
Phone: 513-529-7245
www.muohio.edu/eap

Degrees and Majors Offered

Bachelor of Science in Athletic Training

Bachelor of Science in Education in:
- Chinese
- Early Childhood
- Earth Science
- Earth Science/Chemistry
- Earth Science/Life Science
- Earth Science/Physics
- French
- German
- Integrated English Language Arts
- Integrated Mathematics
- Integrated Social Studies
- Latin
- Life Science
- Life Science/Physics
- Middle Childhood Education
- Physical Science
- Spanish
- Special Education

Bachelor of Science in Family Studies

Bachelor of Science in Kinesiology and Health in:
- Dietetics
- Exercise Science
- Health Studies
- Sport Studies

Bachelor of Science in Social Work

General Information

The School of Education, Health and Society is comprised of five departments: Educational Leadership, Educational Psychology, Family Studies and Social Work, Kinesiology and Health, and Teacher Education.

Each undergraduate program uses the Miami Plan for Liberal Education as a base, adds the specialized content of the major, adds appropriate professional courses, and may integrate experience in field settings through observation, practicum, and internships.

Graduate programs are offered in several fields and lead to a Master of Arts, Master of Arts in Teaching, Master of Education, Master of Science, Specialist in Education, Doctor of Education, or a Doctor of Philosophy. See the Graduate Fields of Study section for details on those programs.

Mission Statement

The Mission of the School of Education, Health and Society at Miami University is to prepare transformative leaders. Through excellence in teaching, scholarship, and community partnerships, the school provides dynamic and innovative programs that encourage international perspectives. Our integrated human experience prepares graduates to generate knowledge, educate, serve and promote well-being in diverse and global settings through ethical, democratic practice.

Accreditation

Accreditation, which specifies standards for faculty, curriculum, financial support, equipment, student services, and facilities, is awarded to the School of Education, Health and Society by North Central Association of Colleges and Schools, National Council for the Accreditation of Teacher Education, National Association for the Education of Young Children, American Dietetic Association, Commission on Accreditation of Athletic Training Education (CAATE), National Association for School Psychologists, and State of Ohio Department of Education. The Council on Social Work Education has accredited the social work baccalaureate program.

Professional and Honorary Organizations

For professional development, the School of Education , Health and Society encourages participation in professional organizations where students can develop leadership skills, interact with professionals, and engage in educational activities. Organizations sponsored by the School include: Miami Council for the Social Studies, Miami University Council of Teachers of Mathematics, Miami University Science Educators, Miami University Student Athletic Trainers Association, Pre-Physical and Occupational Therapy Club, Student Council for Exceptional Children, Comparative Education Club, Ohio Student Education Association (OSEA), Dance Theatre, National Council of Teachers of English–Student Affiliate of Miami (NCTE-SAM), Student Dietetic Association, Student National Education Association, and Family Studies and Social Work Student Organization (FSWSO).

To honor outstanding professional and academic performance, the School is recognized with chapters of the following honoraries: Delta Psi Kappa, Epsilon Phi Tau, Kappa Delta Epsilon, Kappa Delta Pi, Kappa Phi Kappa, Phi Delta Kappa, Phi Epsilon Kappa, and Pi Omega Pi.

Art and Music Education

Art and music education programs, administered through the School of Fine Arts, are described in that chapter. Students preparing to teach art must plan their programs with an art education adviser in the Department of Art. Students interested in music education should consult an adviser in the Department of Music.

Supervised Teaching Policy

Supervised teaching, also called "student teaching," is a period of guided teaching when licensure program majors take increasing responsibility for learning activities of students in a classroom. It includes full-day off campus assignments for an entire semester, facilitated by a university supervisor in a school in cooperation with a licensed classroom teacher.

Student teachers are participants in all phases of the school program. They teach classes, organize and direct extracurricular activities, attend faculty meetings, and participate in other school functions.

Placements are in the Miami University designated geographic area in southwestern Ohio. Student teachers are required to make their own transportation arrangements, including costs. Students must manage their financial obligations

so as to avoid outside involvement during this assignment and curtail other campus responsibilities so they do not interfere with the supervised teaching assignment. Under state law, student teachers must provide written evidence of a negative TB test for school officials. The test must be taken within three months prior to the starting date for student teaching. Student teachers must also have a criminal background check which involves being fingerprinted. Students must provide proof of a criminal background check before beginning student teaching. Placement arrangements **cannot** be completed until the background check has been returned.

Student teaching application forms are available in the Student Teaching and Field Experiences Office, 202 McGuffey Hall. Forms must be filled out and returned to the student teaching office by January of the student's junior year.

Instructional Materials Center

The instructional materials center in King Library provides teacher resources and multimedia materials. The collection consists of the Eileen Tway Children's Literature Collection, textbooks, curriculum guides and activity books, and multimedia resources including videos, audio cassettes, filmstrips, slides, models, kits and games, and computer software. Preview equipment for various media is available.

Ohio Writing Project

Ohio Writing Project (OWP) is a program to improve student writing and the teaching of writing in K-12 classrooms. The project brings together outstanding teachers in workshop settings where they share successful approaches to the teaching of writing and study composition theory and pedagogy. Part of the National Writing Project, OWP also emphasizes that writing teachers must themselves write, both to understand how students write and to sharpen their own writing skills.

In addition to teacher preparation, the project offers a testing service to participating school districts that is partially funded by the Ohio Board of Regents. The OWP office is located in the Department of English, 302 Bachelor Hall (513-529-5245).

Advising

Undergraduate academic advising for the School of Education, Health and Society (EHS) is conducted through the department of the student's major. Freshmen work with their FYA (first year adviser) or the department CDA (chief departmental adviser) or undergraduate coordinator prior to acceptance into a major. Once accepted into a major (usually sophomore or junior year) students are assigned faculty advisers in their major.

Career Services

Career services are offered Career Services, 200 Hoyt Hall (513-529-3831). Career Services assists students to find employment in teaching and other fields. They can also assist you in establishing credentials, writing resumes, and interviewing.

Department of Teacher Education

For information, contact the Department of Teacher Education, 401 McGuffey Hall (513-529-6443).

This department administers undergraduate teacher licensure programs approved by the Ohio Division of Teacher Education and Licensure. Each program, when combined with a baccalaureate degree, makes the candidate eligible for Provisional Ohio teaching licensure in a selected teaching field.

Students who have earned a baccalaureate degree may complete a teacher licensure program as part of a Master of Arts in Teaching degree program in four major cohort areas or may complete a licensure only program in all subject areas. (See the Graduate Fields of Study section for information about the Master of Arts in Teaching degree program.)

Students enrolled in teacher licensure or educational personnel programs are required to participate in clinical and field experience travel, site development, and supervision and are assessed twice during the licensure program.

Licensure as a classroom teacher in the state of Ohio, and most other states, requires completion of a baccalaureate licensure program, passing a licensure examination (s), and a background check. Students in the Department of Teacher Education must pass the content area of the Praxis II examination before student teaching.

Students seeking licensure in more than one teaching field must meet all requirements for each field, including student teaching. These programs will exceed the minimum credit hours for graduation.

Cohorts

A cohort is defined as a group of students who have been selected by the Department of Teacher Education to experience certain parts of their program together, provided they satisfy the prerequisite retention requirements for the methods courses for their licensure field and for student teaching. A cohort is identified by its general subject or licensure area and by a semester or academic year during which the members start or complete their methods courses. For example, Integrated Mathematics 2010-11, Science 2011-12, Middle Childhood Language Arts and Science Fall 2012, Middle Childhood Math and Science Spring 2012, and Early Childhood Spring 2011 are all separate cohorts.

Selection to a Cohort

Students declare a pre-major in a Teacher Education program at the time of university admission or as soon thereafter as possible. After declaring a pre-major, students must apply for acceptance to a cohort. Selection is limited for each cohort to ensure quality instruction; those applicants with the greatest potential for academic success are selected for each cohort. Admission to Miami University or to the School of Education, Health and Society as a pre-major neither implies nor guarantees selection to a cohort.

A cohort application form may be obtained from the Department of Teacher Education, 401 McGuffey Hall (513-529-6443). Admission to cohorts for pre-majors is based on a student's g.p.a. in all Miami Plan courses. This consists of at least 12 credit hours of Miami Plan courses taken for a grade. Cohort application deadlines vary by program. Contact the department for specific dates.

Applicants must take the Praxis I test and score 173 on reading, 172 on math, and 172 on writing. Applicants with an ACT score of 21 or higher or SAT score (math and verbal) of 980 or above are exempt from taking Praxis I. Other criteria may include an essay and statement of relevant life experience.

You may apply to two cohort programs in order to become eligible for multiple teaching licenses; however, you must be selected to both cohorts. If you are selected to an Adolescent Education science or foreign language cohort, you may also pursue any of the other programs within that same cohort; you must declare additional programs as additional major.Transferring from One Cohort to Another

A student in one cohort may not transfer to a different cohort, unless the student applies and is selected to the different cohort. Students who change majors or transfer into Miami may ask to be considered for an earlier cohort if space is available. Students who

are selected for a cohort must take their cohort classes during that specific cohort year.

Transfer Students

Students transferring from another university or enrolled in another program at Miami may apply for selection into a teacher education licensure cohort following the guidelines in the "Limited Admission to Programs" section of this Bulletin.

Retention

There are retention checkpoints for each cohort at the time of registration for each instructional procedures course and at the time of application to supervised teaching. The department has established retention criteria specific to each major for each retention point, which are available from the department.

Technology Requirement

All teacher education programs will be infusing technology into their classes to assist teacher candidates in their preparation to teach in tomorrow's schools. All students seeking a degree in a teacher education program will be required to have a laptop computer when accepted into their teacher education cohort. Students should consider purchasing an Apple (Mac) laptop computer through the Miami Notebook program. Other laptop brands are acceptable, but not preferred.

Early Childhood Education- Bachelor of Science in Education

Program Requirements

Content/professional studies
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDL 318E Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDT 181 Physical Science (4) (MPF IVB, LAB)
EDT 182 Physical Science (4) (MPF IVB, LAB)
EDT 362 The American Political and Economic Experience for Teachers (4)
MTH 115 Mathematics for Early Childhood Teachers (4) (MPF V)
MTH 116 Mathematics for Early Childhood Teachers (4)
NSG/KNH 232 Health Issues of Children and Youth (2)
Biological Science recommendations for Miami Plan Foundation: BOT 131, 155, 171, 191; ZOO 113, 114, 121; BOT 115, MBI 115, ZOO 115, BOT 116, MBI 116, or ZOO 116.
EDP 221Technology in Education (1)
EDP 222 Technology in Education Lab (2)

Early field block
All of these concurrently (includes two weeks of fieldwork):
ART 308E The Child and the Art Experience for Early Childhood (3)
EDP 256E Psychology of the Exceptional Learner (3)
EDT 246E Foundations of Reading, Language, and Literacy (3)
EDT 272E Introduction to Early Childhood Education (3)
MUS 266E Basic Music Skills and Teaching Techniques for Early Childhood (3)
KNH 281E Early Childhood Physical Education (2)

Literacy block
All of these concurrently (includes two weeks of fieldwork):
EDP 495E Inclusion and Adaptations for Gifted and Mild/Moderate Needs: Multi-Age (3)
EDT 315E Language Arts and Children's Literature (2)
EDT 346E Reading Instruction in Early Childhood (3)
EDT 442E Phonics and Reading Improvement in Early Childhood (3)
EDT 448E Reading Practicum, Early Childhood (3)
EDT 473E Integrated Curriculum I: Literacy, Play, Arts, and Behavior (3)

Content integration block
All of these concurrently (includes two weeks of fieldwork):
EDP 432 Assessment and Educational Planning for Children Ages 3-8 (3)
EDT 317E Science in Early Childhood (2)
EDT 318E Mathematics in Early Childhood (3)
EDT 417E Teaching Social Studies in Early Childhood (2)
EDT 474E Integrated Curriculum II: Content Areas: Organizing and Planning the Early Childhood Learning Environment (3)
KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)

Reading Core (courses shown above)
EDT 246E Foundations of Reading, Language, and Literacy (3)
EDT 346E Reading Instruction in Early Childhood (3)
EDT 442E Phonics and Reading Improvement in Early Childhood (3)
EDT 448E Reading Practicum, Early Childhood (3)

Supervised teaching
EDT 419E Supervised Teaching (15)

Middle Childhood Education- Bachelor of Science in Education

Requirements for all Middle Childhood Concentrations

All of these:
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221 Technology in Education (1)
EDP 222 Technology in Education Lab (2)
EDP 256 Psychology of the Exceptional Learner (3)
EDT 442M Phonics and Reading Improvement in Middle Grades (3)
EDT 448M Reading Practicum in the Middle Grades (3)

One of these:
AMS 205 Introduction to American Studies (3)
ATH 185 Cultural Diversity in the U.S. (3)
ENG 162 Literature and Identity (3)
ENG 248 Asian American Literature (3)
ENG 254 Latino/a Literature in the Americas (3)
FSW/EDP 481 Adolescent Development in Diverse Families (3)
GEO 201 Geography of Urban Diversity (3)
IDS 159 Strength Through Cultural Diversity (3)
KNH 415 Wellness Perspectives for Adolescents (3)
WMS 201 Introduction to Women's Studies (3)

Requirements for Language Arts and Mathematics

All of these:
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB)
EDT 265 Mathematics: History and Technology (3)
EDT/ENG 423 Literature and Other Media for Adolescents (3)
ENG 262M Children's Literature for Middle Childhood (3)
ENG 302 Structure of Modern English (4)
ENG 304 Backgrounds to Composition Theory and Research (3)
MTH 151 Calculus I (5) (MPF V)
MTH 217 Math for Middle School Teachers (3) (MPFV)
MTH 218 Geometry for Middle School Teachers (3)
MTH 231 Elements of Discrete Mathematics (3)
MTH 407 Patterns and Structures in Mathematics (3)

One of these (see adviser before choosing):
STA 261 Statistics (4)
STA 301 Applied Statistics (3)

One of these:
ENG 225 Advanced Composition (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

One of these:
CLS 121 Introduction to Classical Mythology (3) (MPF IIB, H)
GER 231 Folk and Literary Fairy Tales (3) (MPF IIB, IIIB, H)
RUS 137 Russian Folklore (3) (MPF IIB, IIIB)

One of these (see adviser before choosing):
ENG 301 History of the English Language (4) **or**
approved literature elective (see DAR for course list)

These two courses (part of methods block):
EDT 429M Teaching Middle Childhood Mathematics (3)
EDT 436 Methods in Middle Childhood Language Arts (3)

Requirements for Language Arts and Science

All of these:
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB)
ENG 262M Children's Literature for Middle Childhood (3)
ENG 302 Structure of Modern English (4)
ENG 304 Backgrounds to Composition Theory and Research (3)
EDT/ENG 423 Literature and Other Media for Adolescents (3)One of these:
EDT 415 Inquiring Life Science (3)
PHY 215 Physics by Inquiry (3)

One of these:
ENG 225 Advanced Composition (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

One of these:
CLS 121 Introduction to Classical Mythology (3) (MPF IIB, H)
GER 231 Folk and Literary Fairy Tales (3) (MPF IIB, IIIB, H)
RUS 137 Russian Folklore (3) (MPF IIB, IIIB)

One of these:
ENG 301 History of the English Language (4) or
approved literature elective (see adviser before choosing)

One of these:
CHM 111 Chemistry in Modern Society (4) (MPF IVB, LAB)
CHM 137,144 College Chemistry/College Chemistry Lab (4, 2) (MPF IVB, LAB)
CHM 141,144 College Chemistry/College Chemistry Lab (3, 2) (MPF IVB, LAB)
EDT 181 Physical Science (4) (MPF IVB)
PHY 171,183 College Physics/Physics Lab (3, 1)
PHY 181,183 The Physical World/Physics Lab (4, 1) (MPF IVB, LAB)

One of these:
EDT 182 Physical Science (4) (MPF IVB)
GLG 111,115L The Dynamic Earth/Understanding the Earth (3, 1) (MPF IVB, H, LAB)
GLG 121,115L Environmental Geology/Understanding the Earth (3, 1) (MPF IVB, LAB)
GLG 141,115L Geology of U.S. National Parks/Understanding the Earth (3, 1) (MPF IVB, LAB)

One of these sequences:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA, LAB) and
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, Molecular Biology (4) (MPF IVA, LAB), **or**
ZOO 113 Animal Diversity (4) (MPF IVA, LAB) and
ZOO 114 Principles of Biology (4) (MPF IVA, LAB)

One of these:
CHM 491 Chemistry in Societal Issues (3)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (4)
PHY 101 Physics and Society (MPF IVB) (3)
ZOO 400 Contemporary Issues in Zoology (MPC)

From BOT, CHM, GLG, IES, MBI, PHY, and ZOO (not taken previously), select electives to bring total to 24 credit hours in science:
BOT 200-499, CHM 200-499, GLG 200-499, IES 200-499, MBI 200-499, PHY 200-499, ZOO 200-499, GEO 221, 271, 421, 424, 425, 428, 431, or 432.

These two (part of methods block):
EDT 436 Methods in Middle Childhood Language Arts (3)
EDT 441 Middle Childhood Science (3)

Requirements for Language Arts and Social Studies

All of these:
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB)
EDT 361 Introduction to the Social Sciences for Elementary School Teachers (4)
EDT 362 The American Political and Economic Experience for Elementary School Teachers (4)
EDT/ENG 423 Literature and Other Media for Adolescents (3)
ENG 262M Children's Literature for Middle Childhood (3)
ENG 302 Structure of Modern English (4)
ENG 304 Backgrounds to Composition Theory and Research (3)
HST 111, 112 Survey of American History (3, 3) (MPF IIB, IIIA, H)

One of these sequences:
HST 121, 122 Western Civilization (3, 3) (MPF IIB, H)
HST 197 World History to 1500 (3) (MPF IIB, IIIB, H) and
HST 198 World History Since 1500 (3) (MPF IIB, IIIB, H)

One of these (see DAR for additional choices):
GEO 301 Geography of Sub-Saharan Africa (4)
GEO 304 Latin American Development (4)
GEO 308 Geography of East Asia (3)

One of these:
ENG 225 Advanced Composition (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

One of these:
CLS 121 Introduction to Classical Mythology (3) (MPF IIB, H)
GER 231 Folk and Literary Fairy Tales (3) (MPF IIB, IIIB, H)
RUS 137 Russian Folklore (3) (MPF IIB, IIIB)

One of these:
ENG 301 History of the English Language (4) **or**
approved literature elective (see DAR and adviser before choosing)
Two of these (part of the methods block):
EDT 436 Middle Childhood Language Arts (3)
EDT 439 Methods in Middle Childhood Social Studies (3)

Requirements for Mathematics and Science

All of these:
EDT 265 Mathematics: History and Technology (3)
MTH 151 Calculus I (5) (MPF V)
MTH 217 Mathematics for Middle School Teachers (3) (MPF V)
MTH 218 Geometry for Middle School Teachers (3)
MTH 231 Elements of Discrete Mathematics (3)
MTH 407 Patterns and Structures in Mathematics (3) (MPC)

One of these (see adviser before choosing):
STA 261 Statistics (4)
STA 301 Applied Statistics (3)

One of these:
EDT 415 Inquiring Life Science (3)
PHY 215 Physics by Inquiry (3)

One of these:
CHM 111 Chemistry in Modern Society (4) (MPF IVB, LAB)
CHM 137, 144 College Chemistry/College Chemistry Lab (4, 2) (MPF IVB)
CHM 141, 144 College Chemistry/College Chemistry Lab (3, 2) (MPF IVB, LAB)
EDT 181 Physical Science (4) (MPF IVB)
PHY 171, 183 College Physics/Physics Lab (3, 1)
PHY 181, 183 The Physical World/Physics Lab (4, 1) (MPF IVB)

One of these:
EDT 182 Physical Science (4) (MPF IVB, LAB)
GLG 111, 115L The Dynamic Earth/Understanding the Earth (3, 1) (MPF IVB, H, LAB)
GLG 121, 115L Environmental Geology/Understanding the Earth (MPF IVB, LAB) (3, 1)
GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (3, 1) (MPF IVB, LAB)

One of these sequences:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA, LAB) **and** BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, Molecular Biology (4) (MPF IVA, LAB) **or**
ZOO 113 Animal Diversity (4) (MPF IVA, LAB) and ZOO 114 Principles of Biology (4) (MPF IVA, LAB)

One of these:
CHM 491 Chemistry in Societal Issues (3)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (4)
PHY 101 Physics and Society (3) (MPF IVB)
ZOO 400 Contemporary Issues in Zoology (3) (MPC)

From BOT, CHM, GLG, IES, MBI, PHY, and ZOO (not taken previously), select electives to bring total to 24 credit hours in science:
BOT 200-499, CHM 200-499, GLG 200-499, IES 200-499, MBI 200-499, PHY 200-499, ZOO 200-499, GEO 121, 221, 271, 421, 424, 425, 428, 431, or 432.

These two (part of methods block):
EDT 429M Teaching Middle Childhood Mathematics (3)
EDT 441 Middle Childhood Science (3)

Requirements for Mathematics and Social Studies

All of these:
EDT 265 The Past, Present, and Future of Mathematics (3)
EDT 361 Introduction to the Social Sciences for Elementary School Teachers (4)
EDT 362 The American Political and Economic Experience for Elementary School Teachers (4)
HST 111, 112 Survey of American History (3, 3) (MPF IIB, IIIA, H)
MTH 151 Calculus I (5) (MPF V)
MTH 217 Mathematics for Elementary Teachers (3) (MPF V)
MTH 218 Geometry for Middle School Teachers (3)
MTH 231 Elements of Discrete Mathematics (3)
MTH 407 Patterns and Structures in Mathematics (3) (MPC)

One of these (see adviser before choosing):
STA 261 Statistics (4)
STA 301 Applied Statistics (3)

One of these sequences:
HST 121, 122 Western Civilization (3. 3) (MPF IIB, H)
HST 197 World History to 1500 (3) and
HST 198 World History Since 1500 (3) (MPF IIB, IIIB, H)

One of these (see DAR for additional choices):
GEO 301 Geography of Sub-Saharan Africa (4)
GEO 304 Latin American Development (4)
GEO 308 Geography of East Asia (3)

These two (part of methods block):
EDT 429M Teaching Middle Childhood Mathematics (3)
EDT 439 Methods in Middle Childhood Social Studies (3)

Requirements for Science and Social Studies

All of these:
EDT 361 Introduction to the Social Sciences for Elementary School Teachers (4)
EDT 362 The American Political and Economic Experience for Elementary School Teachers (4)
HST 111, 112 Survey of American History (3, 3) (MPF IIB, IIIA, H)

One of these:
PHY 215 Physics by Inquiry (3)
EDT 415 Inquiring Life Science (3)

One of these sequences:
HST 121, 122 Western Civilization (3, 3) (MPF IIB, H)

HST 197 World History to 1500 (3) and
HST 198 World History Since 1500 (3) (MPF IIB, IIIB, H)

One of these (see DAR for additional choices):
GEO 301 Geography of Sub-Saharan Africa (4)
GEO 304 Latin American Development (4)
GEO 308 Geography of East Asia (3)

One of these:
CHM 111 Chemistry in Modern Society (4) (MPF IVB, LAB)
CHM 137, 144 College Chemistry/College Chemistry Lab (4, 2) (MPF IVB)
CHM 141, 144 College Chemistry/College Chemistry Lab (3, 2) (MPF IVB, LAB)
EDT 181 Physical Science (4) (MPF IVB, LAB)
PHY 171, 183 College Physics/Physics Lab (3, 1)
PHY 181, 183 The Physical World/Physics Lab (4, 1) (MPF IVB, LAB)

One of these:
EDT 182 Physical Science (4) (MPF IVB, LAB)
GLG 111,115L The Dynamic Earth/Understanding the Earth (3, 1) (MPF IVB, H, LAB)
GLG 121,115L Environmental Geology/Understanding the Earth (3, 1) (MPF IVB, LAB)
GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (3, 1) (MPF IVB, LAB)

One of these sequences:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA, LAB) and
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, Molecular Biology (4) (MPF IVA, LAB)
ZOO 113 Animal Diversity (4) (MPF IVA, LAB) and
ZOO 114 Principles of Biology (4) (MPF IVA, LAB)

One of these:
CHM 491 Chemistry in Societal Issues (3) (MPC)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (4)
PHY 101 Physics and Society (3) (MPF IVB)
ZOO 400 Contemporary Issues in Zoology (3) (MPC)

From BOT, CHM, GLG, IES, MBI, PHY, and ZOO (not taken previously), select electives to bring total to 24 credit hours in science:
BOT 200-499, CHM 200-499, GLG 200-499, IES 200-499, MBI 200-499, PHY 200-499, ZOO 200-499, GEO 121, 221, 271, 421, 424, 425, 428, 431, or 432.

These two (part of methods block):
EDT 439 Methods in Middle Childhood Social Studies
EDT 441 Middle Childhood Science (3)

Adolescent/Young Adult Education Integrated English Language Arts- Bachelor of Science in Education

All of these:
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB)
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDL 318A Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221 Technology in Education (1)
EDP 222 Technology in Education Lab (2)
EDP 256 Psychology of the Exceptional Learner (3)
EDT 190 Introduction to the Teaching Profession (3)
EDT 246A Foundations of Reading, Language and Literacy (3)
EDT 423 Literature and Other Media for Adolescents (3)
ENG 301 History of the English Language (4)
ENG 302 Structure of Modern English (4)
ENG 304 Backgrounds to Composition Theory and Research (3)
FSW/EDP 481 Adolescent Development in Diverse Families (3)*

* see adviser for other choices

One of these:
JRN 101 Introduction to Journalism (3)
JRN 201 News Writing and Reporting I (3)

One of these:
ENG 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)
ENG 225 Advanced Composition (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

One of these:
ENG 131, 132, **or** 133 Life and Thought in English Literature (3, 3, 3) (MPF IIB, H)

One of these:
ENG 141, 142, **or** 143 Life and Thought in American Literature (3, 3, 3) (MPF IIB, H)
ENG 144 Major American Authors (3) (MPF IIB)

One of these*:
CHI 251 Chinese Literature in English Translation (3) (MPF IIIB)
CHI 252 Modern Chinese Literature in English Translation (3) (MPF IIIB)
CLS 121 Introduction to Classical Mythology (3) (MPF IIB, H)
ENG 251 **or** 252 Life and Thought in European Literature (3, 3) (MPF IIB, H)
ENG 255 **or** 256 Russian Literature in English Translation (3, 3)
ENG 259 The Modern World Novel (3, 3)
ENG 364 Italian Humanism and Renaissance (3)
FRE 131 Masterpieces of French Culture in Translation (MPF IIB, H) (3)
FRE 350 Topics in French Literature in Translation (3)
ITL 364 Italian Humanism and Renaissance (3)
RUS 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3) (MPF IIB)
RUS 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3)
RUS 257 Russian Literature in English Translation: From Pasternak to the Present (3)

* see adviser for other world culture choices

One of these (see DAR for additional choices):
ENG/BWS 336 African American Writing, 1746-1877 (3)
ENG/BWS 337 African American Writing, 1878-1945 (3)
ENG/BWS 338 African American Writing, 1946-Present (3)
ENG/BWS 348 Ethnic American Literature (3)

One of these:
ENG 134 Introduction to Shakespeare (3) (MPF IIB)
ENG 221 Shakespeare and Film (3)
ENG 372 or 373 Shakespeare's Principal Plays (3, 3)

One of these:
COM 136 Introduction to Interpersonal Communication (3) (MPF IIC)
COM 143 Introduction to Mass Communication (3) (MPF IIC)
COM 205 American Film as Communication (3)
COM/HST 389 Great Issues in American History: Rhetoric and Reality (3)

Six semester hours of ENG/COM electives. (See adviser for approved list.)

All of these concurrently, fall semester of cohort year only:
EDP 301A Assessment and Evaluation in Educational Settings (3)
EDT 421A Classroom Management (2)
EDT 427 Adolescent Language Arts I (3)
EDT 346A Reading Methods for Teachers of Adolescents (3)

This one, spring semester of cohort year only:
EDT 428 Adolescent Language Arts II (3)

Supervised teaching semester
EDT 419A Supervised Teaching (15)

Integrated Mathematics- Bachelor of Science in Education

All of these:
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDL 318A Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221 Technology in Education (1)
EDP 222 Technology in Education Lab (2)
EDP 256 Psychology of the Exceptional Learner (3)
EDP 440 Practicum in Integrating Technology into Instruction (1)
EDT 190 Introduction to the Teaching Profession (3)
FSW/EDP 481 Adolescent Development in Diverse Families (3)*
MTH 222 Introduction to Linear Algebra (3)
MTH 331 Discrete Mathematics (3)
MTH 411 Foundations of Geometry (3)
MTH 421 Introduction to Abstract Algebra (4)
MTH 482 Great Theorems of Mathematics (3) (MPC)
STA 301 Applied Statistics (3) **and** STA 401 Probability (3)

* see adviser for other choices

Three hours of 300- and 400-level (300-499) MTH or STA to bring total to at least 22 credit hours (approved by adviser).

All of these concurrently, fall semester of cohort year only:
EDP 301A Assessment and Evaluation in Educational Settings (3)
EDT 421A Classroom Management (2)
EDT 429A Adolescent Mathematics I (3)
EDT 446A Integrating Literacy Across Content Areas (3)
MTH 330 Problems Seminar Praxis Review (1) (*optional*)

This one, spring semester of cohort year only:
EDT 430 Adolescent Mathematics II (3)

Supervised teaching semester
EDT 419A Supervised Teaching (15)

One of these calculus sequences:
MTH 151 Calculus I (5) (MPF V) and
MTH 251 Calculus II (4) and
MTH 252 Calculus III (4)
MTH 153 Calculus I (4) and

MTH 251 Calculus II (4) and
MTH 252 Calculus III (4)
MTH 249 Calculus II (5) and
MTH 252 Calculus III (4)
MTH 251 Calculus II (4) and
MTH 252 Calculus III (4)

One of these:
EDT 465 Computing Technology Applied to Mathematics (3)
MTH 408 Mathematical Problem Solving with Technology (3)

Integrated Social Studies- Bachelor of Science in Education

All of these:
ATH 155 Cultures in Context (4) (MPF IIC)
ECO 201 Principles of Micro (3) (MPF IIC)
ECO 202 Principles of Macro (3) (MPF IIC)
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDL 318A Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221 Technology in Education (1)
EDP 222 Technology in Education Lab (2)
EDP 256 Psychology of the Exceptional Learner (3)
EDT 190 Introduction to the Teaching Profession (3)
FSW/EDP 481 Adolescent Development in Diverse Families (3)*
GEO 111 World Regional: Patterns and Issues (3) (MPF IIC, IIIB) **or**
GEO 101 Global Forces, Local Diversity (3) (MPF IIC, IIIB)
POL 241 American Political Systems (4) (MPF IIC, H)
POL 271 World Politics (4) (MPF IIC, IIIB, H)
PSY 111 Introduction to Psychology (4) (MPF IIC)

* see adviser for other choices

One of these sequences:
HST 121, 122 Western Civilization (3, 3) (MPF IIB, IIIA, H)
HST 197, 198 World History (3, 3) (MPF IIB, IIIB, H)

One of these sequences:
AMS 205, 206 Introduction: Approaches to American Culture (3, 3) (MPF IIB, IIA, H)
HST 111, 112 Survey of American History (3, 3) (MPF IIB, H)

One of these:
SOC 151 Social Relations (4) (MPF IIC)
SOC 201 Social Problems (4)
SOC 202 Social Deviance (4)

This one, fall semester of cohort year only:
EDT 433 Adolescent Social Studies Methods I (3)

All of these concurrently, spring semester only:
EDP 301A Assessment and Evaluation in Educational Settings (3)
EDT 421A Classroom Management (2)
EDT 434 Adolescent Social Studies Methods II (3)
EDT 446A Integrating Literacy Across Content Areas (3)

Supervised teaching semester:
EDT 419 Supervised Teaching (15)

No more than two courses of these may be below 300-level:
Two history courses (3, 3)
Any two-course sequence from ATH, ECO, GEO, POL, or SOC (3, 3)
Non-EuroAmerican courses (6)

Twelve hours above 300- level from ATH, ECO, GEO, HST, POL, or SOC

Foreign Language Education

Complete at least 34 semester hours above 202 level in a foreign language of the licensure field. For Latin, complete 34 semester hours above the 102 level; courses related to Latin in the Department of Classics may be used. Study of the selected language begins at a level appropriate to your competence, determined with a placement examination or with a sequence of study prescribed by your academic adviser. All Spanish, French, and German foreign language education students are required to participate in a study abroad program.

Requirements for all Foreign Language Education Programs

All of these:
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDL 318A Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221 Technology in Education (1)
EDP 222 Technology in Education Lab (2)
EDP 256 Psychology of the Exceptional Learner (3)
EDT 190 Introduction to the Teaching Profession (3)
FSW/EDP 481 Adolescent Development in Diverse Families (3)*

* see adviser for other choices

This one, fall semester of cohort year only:
EDT 444/544 Language Teaching and Learning I (3)

All of these concurrently, spring semester of cohort year only:
EDP 301A Assessment and Evaluation in Educational Settings (3)
EDT 421A Classroom Management (2)
EDT 445/545 Language Teaching and Learning II (3)
EDT 446L Reading in the Secondary School (3)

Supervised teaching semester
EDT 419A Supervised Teaching (15)

Chinese: Bachelor of Science in Education

All of these:
CHI 101,102 Elementary Chinese (4, 4)
CHI 201,202 Second Year Chinese (3, 3)
CHI 301,302 Third Year Chinese (3, 3)
CHI 401,402 Fourth Year Chinese (3, 3)
ENG 303 Introduction to Linguistics (4)*

* cross-listed as ATH 309/GER 309/SPN 303

Two of these (study abroad transfer credit may be used):
ART 186 China, Korea, and Japan (in English) (3)
CHI 251 Traditional Chinese Literature in English (3)
CHI 252 Modern Chinese Literature in English (3)
CHI 255 Drama in China and Japan in Translation (3)
CHI 264 Chinese Cinema and Culture (in English) (3)

French: Bachelor of Science in Education

Two of these:
FRE 302 Reading Narrative (3)
FRE 303 Reading the Poetic (3)
FRE 310 Texts in Context (3)

One of these (not previously taken):
FRE 302 Reading Narrative (3)
FRE 303 Reading the Poetic (3)
FRE 307L Practical French (3)
FRE 310 Texts in Context (3)

All of these:
FRE 301 Reading Theatre (3)
FRE 341 Conversation and Current Events in France (3)
FRE 361 French Pronunciation (3)*
FRE 410 Senior Seminar (MPC) (3)
FRE 411 French Civilization (3)
FRE 415 Advanced Composition (3)

Electives FRE 399-499 to complete required 34 semester hours in French:
Recommended: FRE 399W French Conversation (3)

*minimum grade of B required

German: Bachelor of Science in Education

All of these:
GER 301 Advanced German Composition and Conversation (Heidelberg) (3) **or**
GER 303 Introductory Business German (3)
GER 311 Introduction to German Literature (MPF IIB, IIIB, H) (3)
GER 312 Introduction to German Literature (3)
GER 471 Applied German Linguistics (3)
Additional course from GER 400-499

One of these:
GER 321 Cultural Topics in German-Speaking Europe (MPF IIIB, H) (3)
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the USA (MPF IIIB, H) (3)

Complete at least 6 credits of 400-level German courses, including at least one literature course.

Electives to complete required 34 semester hours (not previously taken):
GER 203-GER 499
No courses in translation count in this major

Latin: Bachelor of Science in Education

Note: Study abroad is not required in Latin education

All of these:
CLS 102 Roman Civilization (MPF IIIB, H) (3)
CLS 121 Classical Mythology (MPF IIB, H) (3)
LAT 201 Intermediate Latin (3)

LAT 202 Intermediate Latin (3)

Three semester hours from these:
CLS 200-499

Complete required 34 semester hours from these:
LAT 310 Special Topics in Latin Literature (maximum 12)
LAT 410 Latin Seminar (maximum 12)

Spanish: Bachelor of Science in Education

All of these:
SPN 311 Grammar Review and Introduction to Composition (3)
SPN 312 Introduction to Spanish Language and Linguistics (3)
SPN 315 Introduction to Hispanic Literatures (3)
SPN 316 Intermediate Spanish Composition (3)
SPN 342 Advanced Conversational Spanish (3) (usually taken abroad)
SPN 351 Cultural History of Spain I (3)
SPN 352 Cultural History of Spain II (3)
SPN 361 Spanish American Cultural History I (3)
SPN 362 Spanish American Cultural History II (3)
SPN 420/430/440 Selected Topics (3)
SPN 481 Spanish Phonology and Syntax (3)*

Capstone
SPN 490 Capstone course-various topics (3)

Electives - two of these:
SPN electives 451-499 (6)

* see adviser if SPN 481 is not offered

Music Education

See School of Fine Arts

Science Education

Requirements for all Science Education Programs

All of these:
EDL 204 Sociocultural Studies in Education (MPF IIB) (3)
EDL 318A Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221 Technology in Education (1)
EDP 222 Technology in Education Lab (2)
EDP 256 Psychology of the Exceptional Learner (3)
EDT 190 Introduction to the Teaching Profession (3)
FSW/EDP 481 Adolescent Development in Diverse Families (3)*

*see adviser for other choices

This one, fall semester of cohort year only:
EDT 431 Adolescent Science Methods I (3)

All of these concurrently, spring semester of cohort year only:
EDP 301A Assessment and Evaluation in Educational Settings (3)
EDT 432 Adolescent Science Methods II (3)
EDT 421A Classroom Management (2)
EDT 446A Integrating Literacy Across Content Areas (3)

Supervised teaching semester
EDT 419A Supervised Teaching (15)

Earth Science: Bachelor of Science in Education

All of these:
CHM 141, 144 College Chemistry and Lab (MPF IVB, LAB) (3, 2)
CHM 142, 145 College Chemistry and Lab (MPF IVB, LAB) (3, 2)
GLG 201 Mineralogy (4)
GLG 211 Chemistry of Earth Systems (4)
GLG 244 Oceanography (3)
GLG 301 Sedimentology (4)
PHY 111 Astronomy and Space Physics (MPF IVB, H) (3)
PHY/AER 118 Introduction to Atmospheric Science (MPF IVB) (3)
PHY 171 College Physics (3) **or**
PHY 181 The Physical World (MPF IVB) (4)
PHY 183 Physics Lab (MPF IVB, LAB) (1)
STA 261 Statistics (MPF V) (4)

One of these combinations:
GLG 111, 115L The Dynamic Earth/Understanding the Earth (MPF IVB, H, LAB) (3)
GLG 121, 115L Environmental Geology/Understanding the Earth (MPF IVB, LAB) (3)
GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (MPF IVB, LAB) (3)

One of these (summers only): See advisor for other choices
GLG 411 Field Geology in the Tetons (6)
GLG 412 Tropical Ecosystems: Costa Rica (5)
GLG 413 Tropical Marine Ecology (5)
GLG 414 Coastal Ecology of the Bahamas (5)
GLG 415 Coral Reef Ecology (5)
GLG 499 Geology Workshops (various topics) (5)

One of these:
BOT 131 Plants, Humanity, and Environment (MPF IVA) (3)
GLG 121 Environmental Geology (MPF IVB) (3)
IES 431 Principles and Applications of Environmental Science (3)
MBI 121 The Microbial World (MPF IVA) (3) **and**
MBI 123 Experimenting with Microbes (MPF IVA, LAB) (1)
ZOO 121 Environmental Biology (MPF IVA) (3)

One of these:
ATH 355 Fossil Evidence for Human Evolution (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BOT 204 Evolution of Plant Diversity (4)
GLG 204 Survival on an Evolving Planet (3)
ZOO 206 Evolutionary Biology (3)

One of these:
BOT/MBI/ZOO 115 Biological Concepts (MPF IVA, LAB) (4)
BOT 191 Plant Biology (MPF IVA, LAB) (4)
ZOO 113 Animal Diversity (regional campus) (MPF IVA, LAB) (4)
ZOO 114 Principles of Biology (regional campus) (MPF IVA, LAB) (4)

One of these:
EDT 415 Inquiring Life Science (3)
PHY 215 Physics by Inquiry (3)

One of these:
CHM 491 Chemistry in Societal Issues (MPC) (3)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (MPC) (3)

Take additional science hours approved by your adviser, to bring total science hours to 65 credit hours.

Earth Science/Chemistry: Bachelor of Science in Education

All of the following:
AER/PHY 118 Introduction to Atmospheric Science (MPF IVB) (3)
AER 253 Basic Meteorology Lab (1)
CHM 141,144 College Chemistry/College Chemistry Lab (MPF IVB, LAB) (3, 2)
CHM 142,145 College Chemistry/College Chemistry Lab (3, 2)
CHM 363,364 Analytical Chemistry/Analytical Chemistry Lab (3, 2)
GEO 121 Earth's Physical Environments (MPF IVB) (4)
PHY 111 Astronomy and Space Physics (MPF IVB, H) (3)
PHY 171 College Physics (3) **or**
PHY 181 The Physical World (MPF IVB) (4)
PHY 183 The Physics Lab (MPF IVB, LAB) (1)
PHY 215 Physics by Inquiry (3)
STA 261 Statistics (MPF V) (4)

One of these combinations:
GLG 111, 115L The Dynamic Earth/Understanding the Earth (MPF IVB, LAB) (4)
GLG 121, 115L Environmental Geology/Understanding the Earth (MPF IVB, LAB) (4)
GLG 141, 115L Geology of the U.S. National Parks/Understanding the Earth (MPF IVB, LAB) (4)

One of these:
BOT/MBI/ZOO 115 Biological Concepts (MPF IVA, LAB) (4)
BOT 191 Plant Biology (MPF IVA, LAB) (4)
ZOO 113 Animal Diversity (regional campus) (MPF IVA, LAB) (4)
ZOO 114 Principles of Biology (regional campus) (MPF IVA, LAB) (4)

Two of these:
GLG 201 Mineralogy (4)
GLG 211 Chemistry of Earth Systems (4)
GLG 244 Oceanography (3)
GLG 301 Sedimentology and Stratigraphy (4)
GLG 322 Structural Geology (4)
GLG 401 Climate Change (4)
GLG 402 Geomicrobiology (4)
GLG 408 Hydrogeology (4)
GLG 411 Field Geology (6)

One of these:
CHM 231 Fundamentals of Organic Chemistry (4)
CHM 241, 244 Organic Chemistry/Organic Chemistry Lab (3, 2)
CHM 242, 245 Organic Chemistry/Organic Chemistry Lab (3, 2)

One of these:
CHM 491 Chemistry in Societal Issues (MPC) (3)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)

PHL 307 Gandhian Philosophy (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (MPC) (3)

One of these:
ATH 355 Fossil Evidence of Human Evolution (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)
GLG 205 Evolution and Earth Systems (3)
ZOO 206 Evolutionary Biology (3)

Earth Science/Life Science: Bachelor of Science in Education

All of these:
AER/PHY 118 Introduction to Atmospheric Science (MPF IVB) (3)
AER 253 Basic Meteorology Lab (1)
CHM 141, 144 College Chemistry and Lab (MPF IVB, LAB) (3, 2)
CHM 142, 145 College Chemistry and Lab (3, 2)
GEO 121 Earth's Physical Environments (MPF IVB, LAB) (4)
PHY 111 Astronomy and Space Physics (MPF IVB, H)
STA 261 Statistics (MPF V) (4)

One of these:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (MPF IVA, LAB) (4) **and**
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (MPF IVA, LAB) (4) **or**
ZOO 113 Animal Diversity (MPF IVA, LAB) (4) and
ZOO 114 Principles of Biology (MPF IVA, LAB) (4) **or**
BOT 191 Plant Biology (MPF IVA, LAB) (4) **and**
ZOO 113 Animal Diversity (MPF IVA, LAB) (4)

One of these:
BOT 131 Plants, Humanity, and Environment (MPF IVA) (3)
IES 431 Principles and Applications of Environmental Science (3)
ZOO 121 Environmental Biology (MPF IVA) (4)
ZOO 351 Environmental Education: Focus on Natural History (4)

One of these:
ATH 355 Fossil Evidence of Human Evolution (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BOT 204 Evolution of Plant Diversity (4)
BOT 205 Evolution and Earth Systems (3)
GLG 204 Survival on an Evolving Planet (3)
ZOO 206 Evolutionary Biology (3)

One of these combinations:
GLG 111,115L The Dynamic Earth/Understanding the Earth (MPF IVB, LAB) (4)
GLG 121,115L Environmental Geology/Understanding the Earth (MPF IVB, LAB) (4)
GLG 141,115L Geology of the U.S. National Parks/Understanding the Earth (MPF IVB, LAB) (4)

One of these:
GLG 201 Mineralogy (4)
GLG 205 Evolution and Earth Systems (3)
GLG 211 Chemistry of Earth Systems (4)
GLG 244 Oceanography (3)
GLG 301 Sedimentology (4)
GLG 322 Structural Geology (4)
GLG 401 Climate Change (4)
GLG 402 Geo Microbiology (4)
GLG 408 Hydrogeology (4)

One of these:
BOT 155 Field Botany (MPF IVA, LAB) (3)
BOT 204 Evolution of Plant Diversity (4) (if not chosen previously)
BOT 205 Dendrology (4)
GLG 411 Field Geology (MPC) (6)
GLG 412 Tropical Ecosystems: Costa Rica (5)
GLG 413 Tropical Marine Ecology (5)
GLG 414 Coastal Ecology of the Bahamas (5)
GLG 415 Coral Reef Ecology (5)
ZOO 333 Field Ecology (2)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4) (if not chosen previously)
BOT 425 Fundamentals of Plant Physiology (4)
ZOO 161 Human Physiology (MPF IVA, LAB) (4)
ZOO 305 Animal Physiology (4)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4) (if not chosen previously)
BOT 204 Evolution of Plant Diversity (4) (if not chosen previously)
BOT/ZOO 342 Genetics (3)

One of these:
BOT 171 Ecology of North America (MPF IVA) (3)
BOT 401 Plant Ecology (3)
MBI 475 Microbial Ecology (3)
ZOO 204 Fundamentals of Ecology (3)

One of these:
EDT 415 Inquiring Life Science (3)
PHY 215 Physics by Inquiry (3)

One of these:
CHM 491 Chemistry in Societal Issues (3)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (MPC) (3)

Earth Science/Physics: Bachelor of Science in Education

All of these:
AER/PHY 118 Introduction to Atmospheric Science (MPF IVB) (3)
CHM 141,144 College Chemistry and Lab (MPF IVB, LAB) (3, 2)
CHM 142,145 College Chemistry and Lab (3, 2)
PHY 111 Astronomy and Space Physics (MPF IVB, H) (3)
PHY 181, 182 The Physical World and Lab (MPF IVB) (4, 4)
PHY 183, 184 Physics Lab (MPF IVB, LAB) (1, 1)
PHY 215 Physics by Inquiry (3)
PHY 286 Introduction to Computational Physics (3)
PHY 291, 293 Contemporary Physics and Lab (4, 2)
PHY 292, 294 Electronic Instrumentation and Lab (3, 2)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
MTH 252 Calculus III (4)

One of these:
GLG 111,115L The Dynamic Earth/Understanding the Earth (MPF IVB, H) (4)
GLG 121,115L Environmental Geology/Understanding the Earth (MPF IVB) (4)
GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (MPF IVB) (4)

Two of these:
GLG 201 Mineralogy (4)
GLG 211 Chemistry of Earth Systems (4)
GLG 244 Oceanography (3)
GLG 301 Sedimentology and Stratigraphy (4)
GLG 322 Structural Geology (4) (prerequisite is GLG 301)
GLG 401 Climate Change (4)
GLG 402 Geomicrobiology (4)
GLG 408 Hydrogeology (4)
GLG 411 Field Geology (MPC) (6)

One of these:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (MPF IVA, LAB) (4)
BOT 191 Plant Biology (MPF IVA, LAB) (4)
ZOO 113 Animal Diversity (MPF IVA, LAB) (4)
ZOO 114 Principles of Biology (MPF IVA, LAB) (4)

One of these:
CHM 491 Chemistry in Societal Issues (3)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (MPC) (3)

One of these:
ATH 355 Fossil Evidence for Human Evolution (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BOT 204 Evolution of Plant Biodiversity (4)
ZOO 206 Evolutionary Biology (3)

Life Science: Bachelor of Science in Education

One of these:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA, LAB) **and**
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) (MPF IVA, LAB) **or**
ZOO 113 Animal Diversity (4) (MPF IVA, LAB) **and**
ZOO 114 Principles of Biology (MPF IVA, LAB) (4)

One of these:
BOT 131 Plants, Humanity, and Environment (3) (MPF IVA)
IES 431 Principles and Applications of Environmental Science (3)
ZOO 121 Environmental Biology (3) (MPF IVA)
ZOO 351 Environmental Education: Focus on Natural History (4)

One of these:
ATH 355 Fossil Evidence of Human Evolution (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BOT 204 Evolution of Plant Biodiversity (4)
ZOO 206 Evolutionary Biology (3)

One of these:
BOT 155 Field Botany (3) (MPF IVA, LAB)
BOT 204 Evolution of Plant Biodiversity (if not chosen previously) (4)

BOT 205 Dendrology (4)
BOT 499A Tropical Flora of the Bahamas (4) (MPC)
GLG 499 International Field Geology (5)
ZOO 333 Field Ecology (2)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4)
MBI 201 General Microbiology I (4)
ZOO 203 Introduction to Cell Biology (3)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4) (if not chosen previously)
BOT 425 Fundamentals of Plant Physiology (4)
ZOO 161 Human Physiology (4) (MPF IVA, LAB)
ZOO 305 Animal Physiology (4)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4) (If not chosen previously)
BOT 204 Evolution of Plant Biodiversity (4) (if not chosen previously)
BOT/ZOO 342 Genetics (3)

One of these:
BOT 171 Ecology of North America (3) (MPF IVA)
BOT 401 Plant Ecology (3)
MBI 475 Microbial Ecology: Exploration of the Diverse Roles of Microorganisms in Earth's Ecology (3)
ZOO 204 Fundamentals of Ecology (3)

One of these:
EDT 415 Inquiring Life Science (3)
PHY 215 Physics by Inquiry (3)

One of these:
GLG 111, 115L The Dynamic Earth and Lab (4) (MPF IVB, H)
GLG 121, 115L Environmental Geology and Lab (4) (MPF IVB)
GLG 141, 115L Geology of U.S. National Parks and Lab (4) (MPF IVB)

One of these:
CHM 491 Chemistry in Societal Issues (3) (MPC)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (3) (MPC)

All of these:
CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB, LAB)
CHM 142, 145 College Chemistry and Lab (3, 2)
CHM 231 Fundamentals of Organic Chemistry (4)
STA 261 Statistics (4) (MPF V)

Life Science/Physics: Bachelor of Science in Education

One of these:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA, LAB) **and**
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) (MPF IVA, LAB) **or**
ZOO 113 Animal Diversity (4) (MPF IVA, LAB) **and**
ZOO 114 Principles of Biology (4) (MPF IVA, LAB)

One of these:
BOT 131 Plants, Humanity, and Environment (3) (MPF IVA)
IES 431 Principles and Applications of Environmental Science (3)
ZOO 121 Environmental Biology (4) (MPF IVA)
ZOO 351 Environmental Education: Focus on Natural History (4)

One of these:
ATH 355 Fossil Evidence of Human Evolution (3)
ATH/ZOO 498 Evolution of Human Behavior (3)
BOT 204 Evolution of Plant Biodiversity (4)
GLG 204 Survival on an Evolving Planet (3)
ZOO 206 Evolutionary Biology (3)

One of these:
BOT 155 Field Botany (3) (MPF IVA, LAB)
BOT 204 Evolution of Plant Diversity (4) (if not chosen previously)
BOT 205 Dendrology (4)
BOT 499A Tropical Flora of the Bahamas (4) (MPC)
ZOO 333 Field Ecology (2)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4) (if not chosen previously)
BOT 425 Fundamentals of Plant Physiology (4)
ZOO 161 Human Physiology (4) (MPF IVA, LAB)
ZOO 305 Animal Physiology (4)

One of these:
BOT 203 Introduction to Plant Cell and Molecular Biology (4) (if not chosen previously)
BOT 204 Evolution of Plant Diversity (4) (if not chosen previously)
BOT/ZOO 342 Genetics (3)

One of these:
BOT 171 Ecology of North America (3) (MPF IVA, LAB)
BOT 401 Plant Ecology (3)
MBI 475 Microbial Ecology (3)
ZOO 204 Fundamentals of Ecology (3)

One of these:
GLG 111, 115L The Dynamic Earth and Lab (4) (MPF IVB, H)
GLG 121, 115L Environmental Geology and Lab (4) (MPF IVB)
GLG 141, 115L Geology of U.S. National Parks and Lab (4) (MPF IVB)

One of these:
CHM 491 Chemistry in Societal Issues (3) (MPC)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (3) (MPC)

One of these:
PHY 215 Physics by Inquiry (3)
EDT 415 Inquiring Life Science (3)

All of these:
CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB, LAB)
CHM 142, 145 College Chemistry and Lab (3, 2)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
MTH 252 Calculus III (4)
PHY 181, 182 The Physical World (4, 4) (MPF IVB)
PHY 183, 184 Physics Lab (1, 1) (MPF IVB, LAB)
PHY 291 Contemporary Physics (4)
PHY 292 Electronic Instrumentation (3)
PHY 293 Contemporary Physics Laboratory (2)
PHY 294 Lab in Electronic Instrumentation (2)

Physical Science: Bachelor of Science in Education

One of these:
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA, LAB)
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) (MPF IVA, LAB)
BOT 191 General Botany (4) (MPF IVA, LAB)
MBI 121, 123 The Microbial World/ Experimenting with Microbes (3, 1) (MPF IVA, LAB)
ZOO 113 Animal Diversity (4) (MPF IVA, LAB)
ZOO 114 Principles of Biology (4) (MPF IVA, LAB)

One of these:
GLG 111, 115L The Dynamic Earth and Lab (4) (MPF IVB, H, LAB)
GLG 121, 115L Environmental Geology and Lab (4) (MPF IVB, LAB)
GLG 141, 115L Geology of U.S. National Parks and Lab (4) (MPF IVB, LAB)

One of these:
CHM 491 Chemistry in Societal Issues (3) (MPC)
EDT 374 The Nature of Science (3)
GLG 307 Water and Society (3)
PHL 205 Science and Culture (3)
PHL 376 Environmental Philosophy (3)
ZOO 400 Contemporary Issues in Zoology (3) (MPC)

One of these:
CHM 471 Physical Chemistry I (3)
PHY 286 Introduction to Computational Physics (3)

All of these:
CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB, LAB)
CHM 142, 145 College Chemistry and Lab (3, 2)
CHM 241, 244 Organic Chemistry and Lab (3, 2)
CHM 242, 245 Organic Chemistry and Lab (3, 2)
CHM 363 Analytical Chemistry (3)
CHM 364 Analytical Chemistry Lab (2)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
MTH 252 Calculus III (4)
PHY 181, 182 The Physical World (4, 4) (MPF IVB)
PHY 183, 184 Physics Lab (1, 1) (MPF IVB, LAB)
PHY 215 Physics by Inquiry (3)
PHY 291 Contemporary Physics (4)
PHY 292 Electronic Instrumentation (3)
PHY 293 Contemporary Physics Laboratory (2)
PHY 294 Lab in Electronic Instrumentation (2)

Visual Arts Education – see School of Fine Arts

Reading Endorsement

The reading endorsement is available only at the graduate level. In early childhood and middle childhood, the student completes a twelve credit hour reading core which allows the student to teach reading in the age/grade level of licensure. See the Graduate Fields of Study section for information about the reading endorsement.

Department Family Studies and Social Work

For information, contact the Department of Family Studies and Social Work, 101 McGuffey Hall or call 513-529-2323.

The identified areas of focus of this department are: (a) examining and fostering understanding about the concepts "person in the environment" or "development in context;" (b) fostering increased understanding and the development of strengths in individual development, diverse families, and communities; (c) examining families with adolescents and the particular challenges faced by diverse families during this phase of development; (d) creating knowledge and fostering understanding about how diverse families and communities face stressful circumstances and become resilient in the face of transitions and crises; (e) promoting family life education, as well as evaluation, service, and policy research that enhances the well-being and relationship strength of individuals, families, and communities; and (f) promoting knowledge about and developing prevention, intervention, and social justice strategies for individuals, families, and communities.

Two degree programs in the fields related to families and social work are offered. Each major combines courses in the social sciences, natural sciences, and specialty areas to prepare students for professional careers in a variety of fields including family life education and social work. Opportunities for fieldwork and community service are integral to both degree programs.

The National Council on Family Relations verifies that Miami's undergraduate and graduate programs in Family Studies provide course work meeting all standards and criteria needed for the Provisional Certified Family Life Educator designation.

Family Studies- Bachelor of Science in Family Studies

This program explores the diversity of family systems and their members (e.g. cultural and socioeconomic contexts) across the life span. Courses focus on couple, marital, parental, and other family relationships. Some of the topics addressed are singlehood, decision making in couple relationships, gender roles, communication, marital satisfaction, divorce, remarriage, widowhood, intergenerational relationships, stress, violence, policy, family life education, family support agendas, family poverty, human sexuality education, and family strengths.

A graduate degree is needed to become a licensed counselor or therapist, or go into social service agency management and policy-making.

Program requirements:

Required core courses (33 hours)

All of these:

FSW 261 Diverse Family Systems Across the Life Cycle (3) **or**
FSW/SOC 363 Sociology of Families (3) (MPF IIC MPT)
FSW 281 Child Development in Diverse Families (4)
FSW 295 Research Evaluation in Family Studies and Social Work (4)
FSW/WMS 361 Couple Relationships: Diversity and Change (3)
FSW 381 Parent-Child Relations in Diverse Families (3) MPT
FSW/GTY 466 Later Life Families (3) MPT
FSW 475 Family Theories (3)
FSW 481 Adolescent Development in Diverse Families (3) MPT
FSW 494 Internship with Families and Children (3)
STA 261 Statistics (4) (MPF IV)

Electives: (choose 18 hours from these, 6 hours must be taken at the 400-level)
FSW 201 Introduction to Social Work (3)
FSW 206 Social Welfare: Impact on Diverse Groups (4) (MPF IIC)
FSW 309 Social Welfare Policy II (3)
FSW 312 Human Behavior in the Social Environment (3)
FSW/BWS 362 Family Poverty (3)
FSW 365 Family Life Sexuality Education Across Cultures (3) MPT **or**
SOC/WMS 221 Human Sexuality (3)
FSW 377 Independent Studies (1-5)
FSW 418 The Family Life Education Process (3)
FSW 451 Family Violence (3)
FSW 462 Family Policy and Law (3)
FSW 465 Child Maltreatment (2)
FSW 477 Independent Studies (1-5)
FSW 485 Social Work in a Diverse World (3)
FSW 490 Professional Issues in Family Science (3)
FSW 491 Seminar in Family Studies and Social Work (1-4)
FSW 492 Families in Global Context (4)
FSW 493 Qualitative Methods in Family Research (3)
FSW 495 Advanced Survey of Family Science (3)
FSW 498 Critical Thinking About Family Relationships (4) MPC
KNH 207 Serving and Supporting Children, Youth, and Families I (4)
KNH 208 Serving and Supporting Children, Youth, and Families II (5)

Required Related Courses:

Outside Electives: (21 hours) Choose at least 1 course from each grouping (Approved minors and double majors outside FSW can count for these electives). Contact the department for more information.

Cultural Diversity

AMS/REL 241 Religions of the American Peoples (4)
ATH 185 Cultural Diversity in the U.S. (3) (MPF IIC)
BWS 151 Introduction to Black World Studies (4)
COM 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3)
EDP/DST 272 Introduction to Disability Studies (3)
IDS 159 Strength Through Cultural Diversity (3)
LAS 260 Latin America in the United States (3) (IIIA, MPF)

Social Contexts

AMS/HST/WMS 382 Women in American History (3)
AMS/HST 392 Sex and Gender in American Culture (3)
ATH/BWS/LAS/WMS 325 Identity, Race, Gender, Class (3)
COM 135 Introduction to Public Expression and Critical Inquiry (3)
COM 136 Introduction to Interpersonal Communication (3)
EDL 334 Youth Subcultures, Popular Culture, and the Non-Formal Education (3)
PHL 103 Society and the Individual (3) (IIB, MPF)
PHL 105 Theories of Human Nature (3) (IIB, MPF)
REL 102 Religion and Modern Culture (3) (IIB, MPF)
REL 103 Themes in the History of Religion (3) (IIB, MPF)
SOC 151 Social Relations (4) (IIC, MPF) **or**
SOC 152 Social Relations and U.S. Cultures (4) (IIC, MPF)
WMS 201 Introduction to Women's Studies (3) IIC, MPF)

Human Development

EDP 201 Human Development and Learning in Social and Educational Contexts (3) (IIC, MPF)
GTY 154 Aging in American Society (3) (IIC, MPF)
KNH 102 Individual and Family Environments: Fundamentals of Nutrition (3)
KNH 406 Nutrition Therapy (4)
KNH 407 Food and Nutrition for the Aging (3)
KNH 408 Perinatal and Childhood Nutrition (3)
PSY 231 Developmental Psychology (3)
ZOO 161 Human Physiology (4) (IVA, MPF) **or**
ZOO 171 Human Anatomy and Physiology (4) (IVA, MPF)

Family Life Education Certification

Upon completion of the Family Studies major, graduates may be eligible to apply for provisional certification as a Family Life Educator from the National Council on Family Relations (www.ncfr.org). This certification emphasizes academic preparation and experience to enable individuals to design and implement curricula, workshops, and other family life education

programs. The approved courses that fulfill the requirements of the academic training to become a Family Life Educator include: families in society (FSW 261 or SOC 361), internal dynamics of families (FSW 451 or FSW 461; and FSW 475), human growth and development (GTY 466 or FSW 466; and FSW 281; and FSW 481), human sexuality (FSW 365 or SOC 221), interpersonal relationships (FSW 361), family resource management (FSW 442 or FSW 495 and FSW 461; or FSW 495 and FSW 362), parent education and guidance (FSW 381), family law and public policy (FSW 206 or FSW 462), ethics (FSW 490 and FSW 494), and family life education methodology (FSW 418 and FSW 494).

Social Work- Bachelor of Science in Social Work

This major is founded on a liberal arts base. The goal is to prepare students for generalist baccalaureate-level social work practice by integrating the knowledge, values, and skills of the social work profession.

Students are provided a professional foundation in social work values and ethics, diversity, social and economic justice, populations-at-risk, human behavior and the social environment, social welfare policy and services, social work practice, social work research, and field practice. This program is accredited by the Council on Social Work Education.

Special Admission Requirements

Prior to admission to this major, you may declare a pre-major. You must apply and be accepted by the social work faculty. You may apply to the program while in the process of completing the list of requirements, however, full admission requires completion of: (1) 30 hours of course work with a 2.50 or above overall g.p.a.; (2) FSW 201 with a grade of C or better and passing ZOO 161, ECO 201, SOC 151, and PSY 111; (3) 20 hours of volunteer work in a social service agency within the past four years; (4) a questionnaire; and (5) two recommendations. Social Work applications are available in Room 101 McGuffey Hall. Application packets must be filed in the Social Work Program Office by **March 1**. Admission is limited. You must meet the program requirements as they stand at the time you declare this major. All students, regardless of year of entry, are held to the Social Work Retention Policy.

Program Requirements

Required core courses
All of these:
FSW 201 Introduction to Social Work (3)
FSW 206 Social Welfare: Impact on Diverse Groups (4) (IIC, MPF)
FSW 261 Diverse Family Systems Across the Life Cycle (3)
FSW 295 Research Evaluation in Family Studies and Social Work (4)
FSW 306 Social Work Practice I (4)
FSW 309 Social Welfare Policy II (3)
FSW 312 Human Behavior in the Social Environment (3)
FSW 406 Social Work Practice II (4)
FSW 411 Social Work Senior Practicum (12)
FSW 412 Senior Seminar in Social Work I (2)
FSW 413 Senior Seminar in Social Work II (2)

Required related hours
All of these:
ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**
ECO 131 Economic Perspectives on Inequality in America (3)
FSW 281 Child Development in Diverse Families (4) **or**
PSY 231 Developmental Psychology (3)
FSW/GTY 466 Later Life Families (3) **or**
PSY 334 Adulthood and Aging (3)
FSW 475 Family Theories (3)
PSY 111 Introduction to Psychology (4) (MPF IIC) **or**
EDP 101 Critical Issues in Psychology of the Learner (3) (MPF IIC)
SOC 151 Social Relations (4) (MPF IIC)
STA 261 Statistics (4) (MPF V) **or**
PSY 293 Intro: Psychological Statistics (4) **or**
DSC 205 Business Statistics (4)
ZOO 161 Human Physiology and lab (4) (MPF IVA, LAB)

One of these:
PSY 241 Personality (3)
PSY 242 Abnormal Psychology (3)
PSY 345 Childhood Psychopathology and Developmental Disabilities (3)

One of these:
SOC 348 American Minority Relations (3)
POL 353 Constitutional Rights and Liberties (3)
PSY 325 Psychology of Prejudice and Minority Experience (3)

Social Work Senior Practicum

FSW 411 (Social Work Senior Practicum) is open only to social work majors and taken for six semester hours both semesters of the senior year. FSW 306 and FSW 406 must be completed prior to beginning Field Practicum. In addition, concurrent registration for FSW 412 and/or FSW 413 is required with FSW 411 Senior Practicum. The practicum provides an opportunity to apply generalist social work knowledge and skills from the classroom to experiences within a social service agency setting. Students apply generalist social work knowledge and methods to social work with individuals, families, groups, agencies, communities, and/or institutions.

Child Studies Minor

(20 semester hours)

This minor prepares students to work with children from birth to age 8. Courses focus on growth and development, parent-child relationships, and techniques for working with young children. This program is of special interest to those majoring in education, social sciences, speech pathology, or family studies and social work. This minor open to all students includes Thematic Sequence FSW 4 Children in Families.

For program requirements, please contact the Department of Family Studies and Social Work, 101 McGuffey Hall or call 513-529-2323.

Family Relationships Minor

(18-20 semester hours)

This minor examines the diversity and complexity of family relationships across the life course. Courses focus on family diversity, couple relationships, sexuality, parenting, and human development. Students desiring to increase their knowledge about families in order to enhance their career opportunities will find this minor of interest.

A minimum 2.0 GPA is required for all courses in this minor. No courses may be taken credit/no-credit. Students planning to take this minor should consult with the chief departmental advisor. This minor includes Thematic Sequences FSW 3 Families and Sexuality Across the Life Course and FSW 4 Children in Families. This minor is not open to students majoring in Family Studies. At least 12 credit hours must be taken in the Family Studies and Social Work department.

Program Requirements

All of these:
FSW 261 Diverse Family Systems Across the Life Cycle (3) (MPF IIC)
FSW/WMS 361 Couple Relationships: Diversity and Change (3)
FSW 365 Family Life Sexuality Education Across Cultures (3)
FSW/GTY 466 Later Life Families (3)

Take two from:
FSW 281 Child Development in Diverse Families (4)
FSW 381 Perspectives in Parenting (3)
FSW/GTY 466 Later Life Families (3)
FSW 481 Adolescent Development in Diverse Families (3)
FSW 475 Family Theories (3)
FSW 481 Adolescent Development in Diverse Families (3) MPT

Department of Kinesiology and Health

For information on our admissions policies, contact the Department of Kinesiology and Health, 106 Phillips Hall (513-529-2700).

The mission of the Department of Kinesiology and Health is to advance the understanding of health, physical activity, and related cultural practices to improve life quality and promote healthful, active living.

The faculty is deeply invested in offering high quality educational and research programs. Phillips Hall has state-of-the-art classrooms and laboratory facilities for enriching the educational and research experience of Miami University students.

The department offers five undergraduate program majors including athletic training, dietetics, exercise science, health studies and sport studies. The department also offers two undergraduate program minors: coaching and nutrition.

Athletic Training- Bachelor of Science in Athletic Training

The athletic training major leads to a Bachelor of Science in Athletic Training degree and is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Students who successfully complete this Athletic Training will be qualified and eligible to take the Board of Certification examination.

The mission of the Athletic Training Education Program is to prepare educated, professional athletic trainers through academic and clinical education in which students develop competency and proficiency of entry-level skills for successful completion of the Board of Certification examination and eventual employment in the athletic training profession.

Program Admission Requirements

To enter this major, students must apply to and be accepted by the faculty of the Kinesiology & Health department. Admission is limited due to accreditation enrollment restrictions. The pre-professional phase of the program occurs for two semesters during which time the student will be rotated through clinical experiences in Intercollegiate Athletics for three five-week rotations each semester. They will observe and assist the AT's and athletic training students in a variety of athletic training facilities with several different terms and athletes. All pre-professional athletic training students are required to complete an application to the program during their second semester. The following criteria must be met to be considered for admission:

- documentation of signed Technical Standards in Athletic Training.
- completion of at least 24 credit hours including a minimum of 12 Miami Plan hours
- minimum 2.50 g.p.a. in Miami Plan and required courses.
- have completed KNH 182, 183, 183L, and 188.
- A grade of B or better in KNH 182, 183, and 183L is required.
- have successful evaluations from the supervising athletic trainers.
- documented annual health history/physical examination (dated no earlier than January 1 of application year).
- documented Hepatitis B vaccine series (or waiver).
- successful writing sample
- interview with athletic training education program director.
- completed admission application and supplemental materials. (Applications are available on Blackboard/KNH Students/Athletic Training.)

Acceptance to the program is very competitive. Completion of the above does not guarantee admission to the program. Upon acceptance to the program, you will be assigned to clinical sites at Miami and designated affiliate clinical sites and be required to attend your clinical assignments on a daily basis (practices and events; mornings, afternoons, or evenings, and weekends) as per that particular clinical site. Your academic schedule will be the *only* limiting factor to your clinical assignments. Please note that employment and academic/athletic scholarship requirements *will not* waive your clinical obligations. Students are responsible for expenses of the above and transportation to and from all clinical agencies.

Program Requirements

Exploring KNH Matrix:
Take a minimum of nine (9) KNH credit hours OUTSIDE of student's concentration at multiple course levels
100-level, 200-level, 300-level and 400-level

Athletic Training Major requirements
KNH 102 Fundamentals of Nutrition (3)
KNH 182 Introduction to Athletic Training (2)
KNH 183 Foundations of Athletic Training (3)
KNH 183L Foundations of Athletic Training Lab (1)
KNH 188 Exercise and Health (3) (MPF IIC)
KNH 242 Personal Health (3) (MPF IIC)
KNH 244 Functional Anatomy (3)
KNH 244L Functional Anatomy Lab (1)
KNH 285 Evaluation and Assessment of Athletic Injuries to the Head, Neck, and Torso (2)
KNH 285L Evaluation and Assessment of Athletic Injuries to the Head, Neck, and Torso Lab (1)

KNH 286A Practicum in Athletic Training I (1)
KNH 286B Practicum in Athletic Training II (1)
KNH 286C Practicum in Athletic Training III (1)
KNH 286D Practicum in Athletic Training IV (1)
KNH 286E Practicum in Athletic Training V (1)
KNH 286F Practicum in Athletic Training VI (1)
KNH 287 Evaluation and Assessment of Athletic Injuries to the Extremities (2)
KNH 287L Evaluation and Assessment of Athletic Injuries to the Extremities Lab (1)

KNH 288 Therapeutic Modalities (3)
KNH 289 Therapeutic Exercise (3)
KNH 381 Biodynamics of Human Performance (3)
KNH 381L Biodynamics of Human Performance Lab (1)

KNH 383 Operational and Administrative Aspects of Athletic Training (2)
KNH 420A Athletic Field Training Experience (1-4)
KNH 468 Physiology and Biophysics of Human Activity (3)
KNH 468L Physiology and Biophysics of Human Activity Laboratory (1)
KNH 484 Sports Injury Pathology and Emergency Procedures (2)

PSY 111 Introduction to Psychology (4) (MPF IIC) **or**
EDP 201 Human Development and Learning in Educational Settings (3) (MPF IIC)
ZOO 161 Principles of Human Physiology (4) (MPF IVA, LAB)

Dietetics- Bachelor of Science in Kinesiology and Health

The Dietetics major leads to a Bachelor of Science in Kinesiology and Health degree. Dietetics is the area of health science that studies people's nutritional needs and care. The Miami Dietetics program is accredited by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association. The major provides an interdisciplinary curriculum with courses in nutrition, food science, exercise and health with supporting course in sciences, social science and management. The program fulfills the didactic portion of the requirements to become a registered dietitian and a member of the American Dietetic Association. To become a registered dietitian you must complete an ADA approved clinical experience following graduation.* Dietitians are professionally prepared to do nutritional assessment and nutritional counseling and education as components of preventive, curative, or restorative health.*

*Acceptance rate of clinical experiences dependent upon student performance.

Program Requirements

KNH core (13-14 semester hours)
KNH 102 Fundamentals of Nutrition (3)
KNH 184 Motor Skill Learning and Performance (3)
KNH 184L Motor Skill Learning and Performance Lab (1)
KNH 188 Exercise and Health (3) (MPF IIC MPT) **and**
KNH 242 Personal Health (3) (MPF IIC) **or**
KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)
KNH 276 The Meaning of Leisure (3) (MPF IIC) **or**
KNH 274 Critical Perspectives on the Body (3)

Major requirements (78-79 hours)

Dietetics. All of these:
KNH 104 Introductory Food Science and Meal Management (3)
KNH 201 Meal Management (3)
KNH 305 Introduction to Food Systems Management (3)
KNH 306 Quantity Food Production (3)
KNH 307 Food Systems Operation (3)
KNH 404 Advanced Food Science (4)
KNH 403 Professional Practices in Dietetics (3)
KNH 405 Advanced Nutrition (3)
KNH 406 Nutrition Therapy (4)
KNH 407 Food and Nutrition for the Aging (3)
KNH 408 Perinatal and Childhood Nutrition (3)
KNH 420G Dietetics Field Experience (2)

Business. All of these:
MGT 291 Organizational Behavior and Theory (3)
MGT 303 Human Resource Management (3)

Science. All of these:
CHM 141, 144 College Chemistry and Laboratory (3, 2) (MPF IVB, LAB)
CHM 142, 145 College Chemistry and Laboratory (3, 2) (MPT CHM2)
CHM 231 Fundamentals of Organic Chemistry (4) (MPT CHM2)
CHM 332 Outlines of Biochemistry (4) (MPT CHM2)
MBI 111 Microorganisms and Human Disease (3) (MPF IVA)
ZOO 161 Human Physiology (4) (MPF IVA, LAB)

Others. All of these:
EDP 101 Critical Issues in the Psychology of the Learner (3) (MPF IIC) **or**
PSY 111 Introduction to Psychology (4) (MPF IIC)
ENG 313 Introduction to Technical Writing (3)
STA 261 Statistics (4) (MPF V)

Exercise Science- Bachelor of Science in Kinesiology and Health

This major is designed for students who are interested in the scientific aspects of movement and how it affects health and performance. The exercise science major allows you to individualize your degree program. In consultation with your adviser, you can elect up to 25 percent of 128 credit hours required for graduation.

The Department of Kinesiology and Health (KNH) houses new specially-equipped laboratories that support the exercise science major. The exercise physiology laboratory includes treadmills, bicycle ergometers, carbon dioxide and oxygen analyzers, electrocardiographs, and blood analysis hardware. The motor behavior laboratory is equipped with a force platform, electromyography equipment, digital computer-aided video analysis equipment, and an isokinetic dynamometer. This and other state-of-the art equipment used in exercise science courses helps students gain skills in using the equipment and interpreting the data it provides.

Program Requirements

KNH core (13-14 semester hours)
KNH 102 Fundamentals of Nutrition (3)
KNH 184 Motor Skill Learning and Performance (3)
KNH 184L Motor Skill Learning and Performance Lab (1)
KNH 188 Exercise and Health (3) (MPF IIC, MPT) **or**
KNH 242 Personal Health (3) (MPF IIC) **or**
KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)
KNH 276 The Meaning of Leisure (3) (MPF IIC, H) **or**
KNH 274 Critical Perspectives on the Body (3)

Major requirements
All of these:
CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB LAB)
CHM 142, 145 College Chemistry and Lab (3, 2) (MPT CHM2)
CHM 231 Fundamentals of Organic Chemistry (4) (MPT CHM2)
KNH 188 Exercise and Health (3) (MPF IIC)
KNH 244 Functional Anatomy (3)
KNH 244L Functional Anatomy Lab (1)
KNH 329 Psychological Perspectives on Health (3) **or**
KNH 375 Psychological Perspectives in Sport and Exercise (3)
KNH 381,381L Biodynamics of Human Performance and Lab (3,1)
KNH 382 Fitness Assessment and Exercise Prescription (4)
KNH 468,468L Physiology and Biophysics of Human Activity and Lab (3, 1)
KNH 482 Exercise Management of Chronic Disease (3)
PHY 171,183 College Physics and Lab (5) (MPT CHM 2)
PSY 111 Introduction to Psychology (4) (MPF IIC)
ZOO 161 Human Physiology (4) (MPF IVA LAB)

Health Studies- Bachelor of Science in Kinesiology and Health

In this program, "health" refers to optimal functioning, a process of achieving mental, social, emotional, physical, and spiritual potential. The health studies curriculum is cross-disciplinary in nature, focusing on the sociology, history, pedagogy, psychology, physiology, and biology of health. A student completing this major will be able to facilitate individual health behavior maintenance and/or change, and will also have an understanding of how individual, social, and environmental forces interact in shaping health practices. The intent of this program is to prepare students to be direct providers of health information, informed health advocates, and to be health educators in corporate, classroom, community, work site and/or clinical settings.

Because people's health practices, resources, and opportunities vary across the lifespan, students in the health studies program are required to choose a specialization in one of three modules that emphasize a particular segment of the population. These specialized modules include: (a) child and adolescent health, (b) young and middle adult health, and (c) older adult health. The modules are not setting specific. That is, if students would like to work in corporate, classroom, community, work site, and/or clinical settings, the modules prepare them to work in health education/promotion in any of these settings, with children and adolescents, young and middle-aged adults, or older adults. Students should consult with their adviser on academic plans that will best prepare them to pursue their professional goals.

Program Requirements

KNH core (13-14 semester hours)
KNH 102 Fundamentals of Nutrition (3)
KNH 184 Motor Skill Learning and Performance (3)
KNH 184L Motor Skill Learning and Performance Lab (1)
KNH 188 Exercise and Health (3) (MPF IIC, MPT) **and**
KNH 242 Personal Health (3) (MPF IIC) **or**
KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)
KNH 276 The Meaning of Leisure (3) (MPF IIC) **or**
KNH 274 Critical Perspectives on the Body (3)

Major requirements (26-31 credits)
All of these:
KNH 188 Exercise and Health (3) (MPF IIC)
KNH 242 Personal Health (3) (MPF IIC)
KNH 362 Health Education Pedagogy (4)
KNH 462 Health Program Planning and Evaluation (3)
STA 261 Statistics (4)
ZOO 161 Human Physiology (4) (MPF IVA LAB)

Two of these:
KNH 205 Drugs: A Health Perspective (3)
KNH 206 AIDS: Etiology, Prevalence and Prevention (3) (MPF IIC)
KNH 450 Special Problems (1-4)*

*must be approved by adviser

Two of these:
EDP 201 Human Development and Learning in Social and Educational Contexts (MPF IIC) (3) **or**
PSY 231 Developmental Psychology (3) (MPT)
GTY/SOC 357 Medical Sociology (3)
MBI 131 Community Health Perspectives (2) (MPF IVA)
KNH 329 Psychological Perspectives on Health (3)
SOC 221 Human Sexuality (3)

Health Studies Specialized Modules (10-15 semester hours)
Health education students who elect a second major in health studies must elect from **(b)** or **(c)** under specialization modules.

Choose one of these three areas of specialization:

(a) Child and Adolescent Health
At least four of these:
KNH 190 Professional Perspectives in Health and Physical Education (2)
KNH 207 Serving and Supporting Children, Youth and Families I (4) (MPT)
KNH 208 Serving and Supporting Children, Youth and Families II (5) (MPT)
KNH 232 Health Issues of Children and Youth (2)
KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)
KNH 247 Pedagogy Foundations in Health and Physical Education (3)
KNH 408 Perinatal and Childhood Nutrition (3) (MPT)
KNH 415 Health Education for Children and Youth (3)

(b) Young and Middle Adult Health
At least four of these:
FSW 160 Family Relations: Historical and Comparative Analysis (3) (MPF IIC)
FSW 261 Diverse Family Systems Across the Life Cycle (3) (MPF MPT IIC)
KNH 243 Women's Health Care: Problems and Practices (3)
KNH 385 Contemporary Issues in Men's Health (3)
KNH 471 Sport, Leisure, and Aging (4) (MPT)
PSY 334 Adulthood and Aging (3) (MPT)
REL 360C Homosexual and Lesbian Experience (4)

(c) Older Adult Health
At least four of these:
GTY 154 Aging in American Society (3) (MPF IIC MPT)
GTY 365 Social Policy and Programs in Gerontology (3)
GTY 464 Sociology of Retirement (3) (MPT)
GTY 468 The Aging Individual in a Changing Society (3) (MPC)
KNH 243 Women's Health Care: Problems and Practices (3)
KNH 385 Contemporary Issues in Men's Health (3)
KNH 407 Food and Nutrition for the Aging (3) (MPT)
KNH 471 Sport, Leisure, and Aging (4) (MPT)
NSG 441 Health and Aging: Concurrent Perspectives and Issues (3) (MPT)

Sport Studies- Bachelor of Science in Kinesiology and Health

This major allows students who have a keen interest in sport to study it from psychological, sociological, and historical perspectives. Consistent with the Miami Plan, required courses in sport studies do not just take a descriptive or prescriptive approach. Rather, these courses provide studies with opportunities to think critically about sport and leisure in the broader context of U.S. society and in individual lives. Students can expect to receive a variety of perspectives, some of which will challenge their long-standing beliefs about sport, culture, and the human body.

The sport studies major provides students with a multidisciplinary perspective on sport. Majors are required to take core health-related and physiologically based coursework. The program serves as an excellent foundation for students who wish to pursue advanced degrees in sport management, American studies, cultural studies, sport psychology, or sport sociology. In addition, the coursework in sport studies can also be used as a foundation for other advanced degrees such as law.

Program Requirements

KNH Core (13-14 semester hours)
KNH 102 Fundamentals of Nutrition (3)
KNH 184 Motor Skill Learning and Performance (3)
KNH 184L Motor Skill Learning and Performance Lab (1)
KNH 188 Exercise and Health (3) (MPF IIC MPT) **and**
KNH 242 Personal Health (3) (MPF IIC) **or**
KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)
KNH 276 The Meaning of Leisure (3) (MPF IIC) **or**
KNH 274 Critical Perspectives on the Body (3)

Sport Studies major courses (39-42 semester hours)
All of these:
KNH 244 Functional Anatomy (4)
KNH 244L Functional Anatomy Lab (1)
KNH 274 Critical Perspectives on the Body (3)
KNH 276 The Meaning of Leisure (3) (MPF IIC)
KNH 375 Psychological Perspective on Sport and Exercise (3)
KNH 378 Sport and Social Status (3)
KNH 381 Biodynamics of Human Performance (3)
KNH 381L Biodynamics of Human Performance Lab (1)
KNH 473 Children and Youth in Sport (3)
ZOO 161 Principles of Human Physiology (4) (MPF IVA LAB)

Four of these:
KNH/BWS 279 African Americans in Sport (3) (MPF IIC)
KNH/BWS 292 Dance, Culture, and Contexts (3) (MPF IIB)
KNH 453 Seminar: Sport Studies (3)
KNH 471 Sport, Leisure, and Aging (4)
KNH 472 Sport in Schools and Colleges (4)
KNH 474 Sport and Modernization (4)
KNH 475 Women, Gender Relations, and Sport (3)

Kinesiology and Health Minors

A minor is a specific program to be taken along with a major to complement your skills and increase your career opportunities. More information on minors is in the Other Requirements chapter. Required semester hours are in parentheses beside the minor.

Coaching
(19 semester hours)

This minor is designed for students interested in formal preparation for coaching. The courses are sequenced to allow students to develop knowledge about the art, science, and pedagogy of coaching. The minor offers students the opportunity to obtain competencies needed to coach at the youth, interscholastic, and intercollegiate levels of sport.

Program Requirements
KNH 184 Motor Skill Learning and Performance (3)
KNH 184L Motor Skill Learning and Performance Lab (1)
KNH 194 Standard First Aid and CPR (2)
KNH 194L Standard First Aid and CPR Lab (1)
KNH 244 Functional Anatomy (3)
KNH 244L Functional Anatomy Lab (1)
KNH 336 Coaching Techniques and Tactics (2)
KNH 337 Foundations and Fitness Training for Coaches (3)
KNH 338 Psychosocial Aspects of Coaching (3)

Fall only:
KNH 336A Coaching Techniques and Tactics: Basketball (2)
KNH 336B Coaching Techniques and Tactics: Baseball (2)
KNH 336I Coaching Techniques and Tactics: Softball (2)
KNH 336G Coaching Techniques and Tactics: Track & Field, Cross Country

Spring only:
KNH 336C Coaching Techniques and Tactics: Soccer (2)
KNH 336E Coaching Techniques and Tactics: Volleyball (2)
KNH 336F Coaching Techniques and Tactics: Football (2)

Nutrition
(18 semester hours)

This minor provides an understanding of nutrition and includes specialized courses in child nutrition, nutrition for the aging, an community nutrition. It is open to all students and complements majors in health-related professional and pre-professional programs. A minimum 2.00 g.p.a. is required for all courses in the minor. No courses may be taken credit/no-credit.

Program Requirements
KNH 101 Introductory Food Science (3)
KNH 102 Fundamentals of Nutrition (3)
KNH 405 Advanced Nutrition (3) *
KNH 407 Food and Nutrition for the Aging (3) **
KNH 408 Perinatal and Child Nutrition (3) **
KNH 409 Nutrition for Sport and Fitness (3) **

* prerequisite: 6 hrs. of college chemistry
** prerequisite: KNH 102

Special Education

For information, contact the Department of Educational Psychology, 201 McGuffey Hall (513-529-6621).

Special Admission and Transfer Requirements

Admission is limited to those who are eligible for admission to teacher preparation programs and have completed 30 semester hours with a 2.50 g.p.a., including EDP 220 Field Experience in Special Education, EDP 256 Psychology of the Exceptional Learner, and EDP 201 Human Development and Learning in Social and Educational Contexts, as well as 100 hours of service with children and persons with exceptionalities.

To enter this teacher licensure program, you must complete an application from the department. See "Admission" earlier in this chapter.

Transfer students may be admitted to a special education program only if they have completed at least 30 semester hours with at least a 2.50 g.p.a. (4.00 scale) for all college work attempted, including courses in educational psychology and exceptional persons, and are eligible for admission to teacher education programs. Otherwise, they will be considered pre-special education majors until these requirements are met.

Candidates will be expected to complete and successfully pass the portfolio review process at established intervals within the program.

Cohorts

A cohort is a group of students in a common year designated to take instructional (methods) courses in a common group of related teaching fields as well as complete their student teaching during the same academic year. Selection is limited for each cohort group to ensure quality instruction.

Selection to a Cohort

Special education majors with licensure: Declare a pre-major in special education or intent to minor in special education at the time of university admission, or soon thereafter. After declaring a pre-major, apply for admission to special education and a cohort group by **February 1** of the sophomore year. Applications are available at the department.

Applicants are selected by the special education faculty for each cohort group on the basis of potential for academic and professional success. Cohort selection procedures may be obtained from the department. Applicants are notified of admission to their cohort and major on or before **April 15**; some applicants may be placed on a waiting list.

Note: Admission to Miami University, the School of Education, Health and Society or to a pre-major neither implies nor guarantees selection to a cohort group.

Special education minors without licensure and Thematic Sequence: Minors not seeking licensure and students seeking only the Thematic Sequence in special education (EDP 1) can apply any time. Applications are taken until the cohort fills.

The department is committed to admitting transfer students to the special education major and minor; however, there is limited space for transfer students, and they are admitted as cohort space allows.

Special Education- Bachelor of Science in Education with Licensure

(Mild-Moderate Licensure only)

This major leads to the Bachelor of Science in Education with Ohio two-year licensure in Intervention Specialist - Mild-Moderate. Field and/or clinical experience is combined with academic coursework sophomore through senior years. In order to complete the degree requirements in four years, students are encouraged to select the major no later than second semester of the first year.

Program Requirements

Professional core
EDL 204 Sociocultural Studies in Education (3) (MPF IIB)
EDL 318 Leadership in Education (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)
EDP 221/222 Technology in Education (2, 1)
EDP 256 Psychology of Learners with Exceptionalities (3) *
EDP 494 Assessment, Evaluation, and Educational Planning for Learners with Exceptionalities (3)

* Prerequisite for EDP 256 is EDP 201.

Reading core:
EDT 246A Foundations of Reading, Language, and Literacy (3)
EDT 346M Reading Instruction for Middle Grades (3)
EDT 436 Middle Childhood Language Arts (3)
EDP 471 Literacy Training Seminar - Clinical
EDP 472 Literacy Training Seminar - Practical

Intervention specialist core
EDP 220 Field Experiences in Special Education (1) **
EDP 444 Teaching Social and Affective Skills to Children and Youth with Exceptionalities (2) ***
EDP 478 Consultation and Collaboration in Special Education (3) ***
EDP 496 Behavioral Interventions: Theory, Principles and Techniques (3) ***
SPA 223 Theories of Language Development (3)

** Pre- or Co-requisite is EDP 256
*** Prerequisite is EDP 256

Mild/moderate intervention specialist

Intervention specialist core and all of these:
EDP 454 Adapting Math Instruction for Learners With Special Needs (3)
EDP 459 Practicum in Special Education: Mild/Moderate Disabilities (3)
EDP 491 Teaching Students with Mild and Moderate Disabilities (3)
EDP 495 Inclusion and Adaptations for Mild-Moderate Needs: Multi-age (3)
MTH 115 Mathematics for Teachers of Grades P-6 (4)
MTH 116 Mathematics for Elementary School Teachers (4)

Special Education Minor

A minor is a specific program to be taken along with a major to complement your skills and increase your career opportunities. More information on minors is in the Other Requirements chapter.

Special Education Without Licensure

Open to any major, this minor can usually be completed within a four-year program. It includes Thematic Sequence EDP 1. Applications for this minor and thematic sequence are accepted in the EDP office each year until enrollment limits are reached.

Program Requirements

Take this course first:
EDP 256 Psychology of Learners with Exceptionalities (3)

Then take these:
EDP 272 Disability Studies (3)
EDP 478 Consultation and Collaboration in Special Education (3) **or**
FSW 381 Parent-Child Relations in Diverse Families (3)
EDP 491 Individuals With Mild-Moderate Disabilities: Social, Educational and Legal Issues (3)
EDP 494 Assessment and Evaluation of Exceptional Learners (3)
EDP 496 Behavioral Interventions: Theory, Principles, and Practice (3)
FSW 381 Perspectives in Parenting (3)
SPA 223 Language Development (3)

* Recommended for education and speech pathology majors only

Thematic Sequence:
EDP 1 Developmental, Social, and Educational Patterns in Individuals With Exceptionalities

Take this class:
EDP 256 Psychology of the Learner With Exceptionalities (3)

Take two of these:
EDP 491 Individuals With Mild-Moderate Disabilities: Social, Educational and Legal Issues (3)*
EDP 272 Disability Studies (3)* **or**
EDP 478 Consultation and Collaboration in Special Education (3)*

* Prerequisite is EDP 256

The School of Engineering and Applied Science

Advising Office
106 Benton Hall
Phone: 513-529-0700
www.eas.muohio.edu

Degrees and Majors Offered:

Bachelor of Science in:
- Computer Science
- Nursing (4-year BSN and RN-BSN completion)
- Paper Science and Engineering
- Software Engineering

Bachelor of Science in Applied Science in:
- Engineering Technology

Bachelor of Science in Engineering in:
- Bioengineering
- Chemical Engineering
- Computer Engineering
- Electrical Engineering
- Engineering Management
- General Engineering
- Manufacturing Engineering
- Mechanical Engineering

Associate in Applied Science

Associate of Technical Study
(Refer to Hamilton and Middletown section)

Certificate Programs
(Refer to Hamilton and Middletown section)

General Information

The School of Engineering and Applied Science's mission is to serve society by providing high quality undergraduate and graduate education in the fields of computing, engineering, and nursing. We are committed to creating an environment for teaching, learning, and scholarship that is intellectually stimulating, interactive, innovative and in which our faculty, staff, and students reach their full potential. Our guiding principle is to provide professional education integrated with Miami University's traditional strength in liberal education.

Everyone in the School of Engineering and Applied Science values:
- Effective student learning and student success
- An intellectually stimulating and challenging environment
- Faculty growth and learning as teachers and scholars
- Diversity of staff, faculty, and student body
- Respect for the environment

We are committed to an environment that fosters:
- Innovation and creativity
- Ethical behavior
- Respect for others and teamwork
- International and global opportunities and perspectives
- Fact-based, collegial decision-making
- Safety in all our professional endeavors

The School of Engineering and Applied Science offers the following Bachelor's degrees:

Majors:

Bachelor of Science in:
- Computer Science
- Nursing (4-year BSN and RN-BSN Completion)
- Paper Science and Engineering
- Software Engineering

Bachelor of Science in Applied Science with major in
- Engineering Technology (completion program for associate's degree holders)

Bachelor of Science in Engineering with major in:
- Bioengineering
- Chemical Engineering
- Computer Engineering
- Electrical Engineering
- Engineering Management
- General Engineering
- Manufacturing Engineering
- Mechanical Engineering

Minors:
Chemical Engineering
Computational Science and Engineering
Computer Engineering
Computer Science
Electrical Engineering
Manufacturing Engineering
Mechanical Engineering
Paper Engineering

Associate degree programs at the regional campuses:
Computer and Information Technology
Computer Technology
Electrical and Computer Engineering Technology
Mechanical Engineering Technology
Technical Study (interdisciplinary)

Certificate Programs at the regional campuses:
Computer-Aided Drafting/Computer-Aided Manufacturing
Computer Hardware Technology
School Nurse Licensure (for BSN graduates)

First-Year Course Selection for Undecided Students

The School of Engineering and Applied Science has developed the following first-year course pattern for students who have not decided on a major and who want to progress satisfactorily in engineering and applied science majors while maintaining maximum flexibility in considering other science/math-based programs. Faculty advisers are available at summer orientation to help you select courses within this pattern. You will be assigned a faculty adviser to help you with course and career selection while you remain an undecided major. Once you have selected a major, a faculty adviser in that area will be assigned to you.

If you have already chosen a major in engineering and applied science, please refer to the program description later in this section for recommended first-year course selections.

If you are undecided about your major, but considering a major in engineering and applied science (except nursing), select courses within the following pattern with the advice of a faculty adviser:

First semester (16-19 semester hours)
EAS 101 Computing, Engineering, and Society (1)
ENG 111 College Composition (3) (MPF I)
MTH 151 or 153 Calculus I (4-5) or MTH 249 Calculus II (5) (MPF V) *

PHY 181, 183 The Physical World and Laboratory (4, 1) (MPF IVB) **or**
CHM 141, 144 College Chemistry and Laboratory (3, 2) (MPF IVB) **or**
biological science course (3) (MPF IVA)
Miami Plan elective (IIA, IIB, IIIA, or IIIB) (3) **or**
CSE 174 Fundamentals of Programming and Problem Solving (3)

Second semester (16-19 semester hours)
EAS 102 Problem Solving and Design (3)
ENG 112 Composition and Literature (MPF I) (3)
MTH 251 Calculus II (4) or MTH 252 Calculus III (4)
PHY 182, 184 The Physical World and Laboratory (4, 1) (MPF IVB) **or**
CHM 142, 145 College Chemistry and Laboratory (3, 2) **or**
Miami Plan electives (IIA, IIB, IIIA, or IIIB not taken above) (6)

* Typically, students start with MTH 151. Depending on results of the math placement exam, ACT/SAT scores, and high school background, however, you may start with MTH 104, 123, 153, or 249. Students who take a prerequisite course to MTH 151 (104 or 123) will usually not hinder their academic progress.

Choosing Liberal Education Electives

All programs in the School have liberal education electives in the humanities, fine arts, social science, United States and world cultures, and Thematic Sequence components of the Miami Plan for Liberal Education. You are encouraged to seek advice from a faculty adviser in choosing electives that are consistent with your interests and educational goals.

Study Abroad

Students are encouraged to consider spending a summer term, semester, or year studying abroad. This experience offers a valuable opportunity to enrich students' perspectives and understanding and to help understand the needs of clients in computing, engineering, and nursing in our increasingly global society. Students considering study abroad need to meet with their advisor and plan their curriculum as early as possible.

Transfer Students

Transfer students from two-year colleges who have received associate of science or associate of arts degrees with emphasis in science, engineering, mathematics, or computing, or have received associate of science in nursing degrees will find their credits adaptable to one of the bachelor's degree programs in the School. Consult a faculty adviser for further information on the applicability of your credits.

Honorary and Professional Organizations

Through honorary and professional organizations, you can further develop leadership skills, interact with professionals in your field, and engage in educational activities which have significance beyond the campus.

Organizations sponsored through the School of Engineering and Applied Science include American Institute for Aeronautics and Astronautics, American Institute of Chemical Engineers, American Society for Mechanical Engineers, Association for Computing Machinery, Association for Women in Computing, Engineers Without Borders, Institute for Electrical and Electronics Engineers, National Society of Black Engineers, National Society of Professional Engineers, Society of Automotive Engineers, Society of Manufacturing Engineers, Society of Women Engineers, Student Energy Initiative, Tau Beta Pi, and the Technical Association of the Pulp and Paper Industry.

Advisory Councils

Engineering and Applied Science Advisory Council is composed of outstanding leaders in business, industry, and the professions. Council meets on campus twice a year with faculty and students, helping to ensure that the School's programs continually improve and meet society's changing needs.

The School and our departments are also advised by student advisory councils to continually improve our programs.

Co-op and Intern Opportunities

Internships and co-ops provide an opportunity for students in engineering and applied science to gain work experience in an area related to their majors.

Both programs offer employers an opportunity to preview prospective employees and for students to preview prospective employers. Most companies pay their co-op and intern students. Contact Career Services for more information.

Placement and Graduate Studies

Most graduates enter professions directly upon graduation. Each year many employers visit campus specifically to recruit engineering and applied science seniors. Placement rates for graduates of the School have consistently remained high; current placement information can be obtained from the office of the dean. Placement services are available to all Miami students through Career Services.

Our graduates are well prepared to pursue graduate education, including medical and law school. Assistantships are frequently available in the graduate programs at other universities in addition to Miami University. Many graduates, who enter their profession directly, pursue graduate degrees on a part-time basis with the financial support of their full-time employer.

Basic Requirements: Bachelor of Science Programs

Students derive their strength from a curriculum that is a unique combination of professional education in the major discipline and the Miami Plan for Liberal Education. With help of the Engineering and Applied Science Advisory Council representatives from business, industry, health care agencies, and other areas, the School has articulated broad outcome characteristics desired of our graduates.

School of Engineering and Applied Science graduates should be able to:

- Define and solve problems
- Make ethical choices and act responsibility
- Critically evaluate information
- Work effectively in a team
- Exercise initiative
- Function in a leadership role
- Recognize broad societal contexts and interests
- Serve clients and society with sensitivity and accountability
- Interact effectively with diverse cultures
- Adapt to change
- Recognize the value of lifelong learning
- Write effectively
- Speak and listen effectively
- Understand and apply mathematics and science
- Understand and apply the concepts of continuous quality improvement
- Pursue further formal education

You must attain a minimum 2.00 g.p.a. for required departmental courses in your major. Specific course requirements for each of the School's majors are listed in this chapter.

Major Programs: School of Engineering and Applied Science

Bioengineering- Bachelor of Science in Engineering

Note: Changes in courses and curricular requirements are being developed as this Bulletin is going to press. For more information, contact the CPE department at the number below.

For information, contact the Department of Chemical and Paper Engineering, 64 Engineering Building (513-529-0760).

Bioengineering is the integration of life sciences with engineering to develop solutions for healthcare related problems as well as to create new biology-inspired methodologies for computing, design, and engineering. The program uses a multi-disciplinary approach, deriving its strength from biology, chemistry, mathematics and various engineering disciplines as well as computational sciences. Together, these enable the graduate to analyze, design, synthesize, and test products and processes in a variety of bioengineering areas, such as medical equipment and instrumentation, pharmaceuticals, biotechnology, prosthetics and artificial biomaterials.

This program provides the student with a broad bioengineering education enhanced by liberal arts courses in life sciences, economics, humanities, social sciences, world and U.S. cultures.

Within the bioengineering curriculum, students choose among concentrations including bioinformatics and computational biology, biomedical engineering, bioprocessing and pre-medical. A partial list of organizations that employ bioengineers includes medical device, equipment, sensor, and instrument manufacturers, hospitals, clinical laboratories, pharmaceutical companies, biofuel producers, food and agriculture related companies, and biotechnology industries.

Program requirements

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (27-28 hours)
Additional natural science hours are identified under individual concentration areas
PHY 181,182 The Physical World and Lab (5) (MPF IVB LAB)
PHY 183, 184 The Physical World and Lab (5) (MPF IVB LAB)
CHM 141,144 College Chemistry and Lab (5) (MPF IVB LAB)
CHM 142,145 College Chemistry and Lab (5)
BOT/MBI/ZOO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) (MPF IVA)

Mathematics & Statistics (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 245 Differential Equations for Engineers (3)
MTH 251 Calculus II (4)
STA 368 Introduction to Statistics (4)

Select one from below:
BOT 255 Introduction to Biotechnology (3)
MBI 201 General Microbiology I (4)
ZOO 203 Introduction to Cell Biology (3)

Thematic Sequence (9 hours)
Liberal Education sequence outside the major focused around a theme

Bioengineering and Engineering Science (45-46 hours)
EAS 101 Computing Engineering and Society (1)
EAS 102 Problem Solving and Design (3)
ECE 205 Electric Circuit Analysis I (3)
MME 211 Static Modeling of Mechanical Systems (3)
MME 213 Computational Methods in Engineering (3)
MME 311 Dynamic Modeling of Mechanical Systems (3)
MME/PCE 314 Engineering Thermodynamics (3)
MME/PCE 341 Engineering Economics (3)
PCE 204 Materials and Energy Balance (3)
PCE 417 Biomedical Engineering (3)
PCE 418 Biological Transport Phenomena (4)
PCE 419 Biomaterials (3)
PCE 471 Engineering Design I (1-2)
PCE 472 Engineering Design II (2)

Technical Electives (20-24 hours)

Choose one area of concentration:

Bioinformatics (23 hours)
BOT/MBI/ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) (MPF IVA)
BOT/CSE/MBI/ZOO 466 Bioinformatics Computing Skills (3)
CHM 231 Fundamentals of Organic Chemistry (4)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)
CSE 274 Data Abstraction and Data Structures (3)
MTH 231 Elements of Discrete Mathematics (3)

Biomedical Engineering (23-24 hours)
CHM 231 Fundamentals of Organic Chemistry (4)
ZOO 305 Animal Physiology (4)
ECE 305 Electric Circuit Analysis II (3)
ECE 306 Signals and Systems (3)
ECE 426 Biomedical Signal Analysis (3)
MME 360 Design of Medical Devices (3)

Select one from below:
CHM 332/432 Outlines of Biochemistry (4)
PHY 421 Introduction to Biophysics (4)

Bioprocessing (21 hours)
CHM 231 Fundamentals of Organic Chemistry (4)
CHM 332/432 Outlines of Biochemistry (4)
CHM 471 Physical Chemistry (3)
PCE 415 Chemical Kinetics and Reactor Design (3)
PCE 416 Biochemical Engineering (3)

Select one from below:
BOT 425 Environmental Plant Physiology (4)
MIB 425 Microbial Physiology (4)

Pre-medical (27 hours)
CHM 241 Organic Chemistry (3)
CHM 244 Organic Chemistry Laboratory (2)
CHM 242 Organic Chemistry (3)
CHM 245 Organic Chemistry Laboratory (2)
CHM 332/432 Outlines of Biochemistry (4)
PCE 415 Chemical Kinetics and Reactor Design (3)
ZOO 305 Animal Physiology (4)

Any one engineering senior level technical elective (3 hours):
Choose from above concentration areas

Select one from the following two courses:
BOT/ZOO 342 Genetics (3) **or**
MBI 445 Microbial Genetics (3)
MBI 365 Molecular and Cell Biology (3) **or**
ZOO 444 Molecular Biology (3)

Chemical Engineering- Bachelor of Science in Engineering

For information, contact the Department of Chemical and Paper Engineering, 64 Engineering Building (513-529-0760).

This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

Chemical engineering encompasses the analysis, design, and synthesis of products and processes in a variety of areas, such as chemical and petrochemical processes, pharmaceuticals, environmental processes, biotechnology/bioengineering, and pulp and paper processes. The field of chemical engineering

requires the ability to understand and apply math and science, to research concepts and apply modeling methods, and to simulate and test working conditions and their impact on the designed systems.

The chemical engineer of the 21st century must be able to think critically in broader contexts because problems in contemporary society are not only technical but also social and economic in nature. This program provides the student with a broad chemical engineering education enhanced by courses in manufacturing engineering, chemistry and biochemistry, economics, humanities, social science, world and U.S. cultures, and liberal arts.

Graduates have the opportunity to work in a diverse spectrum of professional fields. These vary from research to design, from development to manufacturing, and from technical sales to production. Chemical engineers work in manufacturing-related areas as well as in non-technical sectors of the economy such as business, law, and management. Graduates will also be prepared to continue their education at the graduate level.

Within the chemical engineering curriculum, students choose among concentrations including biochemical engineering, environmental engineering, and paper science and engineering. A partial list of industries that employ chemical engineers includes biotechnology and biomedicine, electronics, food processing, environmental protection, paper, petroleum refining, and synthetic fibers.

Merit scholarships provided by the industry-supported Miami University Paper Science and Engineering Foundation enable those students with good academic records who choose the paper science and engineering option within chemical engineering to receive partial tuition to as much as full in-state tuition costs (tuition, fees, room and board). Out-of-state students may be eligible for an additional award of $2,000 per year.

Educational Objectives

The educational objectives of the program are:

- The graduate will have and apply the technical knowledge, skills, and expertise required of a process engineer to achieve practical solutions to problems in the chemical industry or for a company allied to the chemical industry. The graduate will serve the needs of the biochemical, environmental, and paper industries.
- The graduate will have organizational leadership and general communication skills needed by professionals at the entry-level and beyond.
- The graduate will have the key personal attributes desirable in an engineer and use these attributes to learn and develop.
- The graduate will have life-long learning skills, which will allow successful adaptation to the changing environment and evolving technologies throughout the professional career.
- The major will have sound grounding in engineering, sciences, and liberal education, which will facilitate successful pursuit of graduate studies in engineering or other professional degrees, such as business, law and medicine.

Credit/No-Credit Policy

All required engineering, chemistry, physics, mathematics, and English courses should be taken for a grade.

Grade Requirements

You must earn a grade of C or better in the following courses: CHM 142, PCE 204, and PHY 181.

Transfer Credit Policy

To obtain transfer credit for any 300- or 400-level chemical and paper engineering course, you must first receive written departmental approval *before* enrolling in that course at another college or university. Transfer credit may be obtained for *only one* engineering course in the series PCE 204, PCE 313, PCE 314, PCE 403, and PCE 414. Contact the department if transferring into this program.

Program Requirements: Chemical Engineering

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities, and Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (37-38 hours)
CHM 141,142,144,145 College Chemistry w/Lab (10) (MPF IVB, LAB)
CHM 241, 242, 244 **or**
CHM 251 Organic Chemistry w/Lab (8)

Select one of the following:
CHM 332 or 432 Outlines of Biochemistry (4)
CHM 432 or 433 for Biochemical Technical Specialty (3-4)
CHM 351 Physical Chemistry (3)
PHY 181,182,183,184 The Physical World w/Lab (10) (MPF IVB, LAB)
Miami Plan Biological Science elective (3) (MPF IVA)

Mathematics and Statistics (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
MTH 252 Calculus III (4)
MTH 245 Differential Equations for Engineers (3)

Required Engineering Courses (4 hours)
EAS 101 Computing, Engineering & Society (1)
EAS 102 Problem Solving and Design (3)

Required Chemical and Paper Engineering Courses (40 hours)
MME/PCE 313 Fluid Mechanics (3)
MME/PCE 314 Thermodynamics (3)
MME/PCE 341 Engineering Economics (3)
MME/PCE 403 Heat Transfer (3)
PCE 204 Mass and Energy Balances (3)
PCE 219 Statics and Mechanics of Materials (3) **or**
MME 211 Static Modeling of Mechanical Systems (3)
PCE 311 Unit Operations Lab (2)
PCE 412 Chemical Engineering Thermodynamics (3)
PCE 414 Mass Transfer (3)
PCE 415 Chemical Kinetics and Reactor Design (3)
PCE 451 Unit Operations Laboratory II (2)
PCE 471 Engineering Design I (2) (MPC)
PCE 472 Engineering Design II (2) (MPC)
PCE 473 Chemical Process Design (3)
PCE 482 Process Control (3)

Technical electives (12-13 hours)
Select one of the following concentrations:

Paper Science and Engineering
PCE 201 Principles of Paper Science and Engineering (3)
PCE 202 Pulp and Paper Physics (3)
PCE 301 Pulp and Paper Chemistry (3)
PCE 404 Paper Making (3)
PCE 490 Special Topics (1)

Environmental Engineering
MME 223 Engineering Materials (3)
PCE 405 Industrial Environmental Control (3)
PCE 441 Pollution Prevention (3)
PCE 442 Air Pollution Control (3)

Biochemical Engineering
MME 223 Engineering Materials (3)
PCE 416 Biochemical Engineering (3)
PCE 417 Biomedical Engineering (3)

Select one of the following:
CHM 432 Fundamentals of Biochemistry (4) **and**
CHM 472 Physical Chemistry (3) **or**
CHM 433 Biochemistry **and**
CHM 434 Biochemistry (3)

General Chemical Engineering
MME 223 Engineering Materials (3)
Choose 3 courses in PCE of which at least 2 must be at 400 level

Computer Engineering- Bachelor of Science in Engineering

For information, contact the Department of Electrical and Computer Engineering, 260 Engineering Building (513-529-0741).

This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

Computer engineering combines elements of electrical engineering and computer science to design and operate devices and/or systems incorporating computers as components. It seeks to interface appropriate software to digital hardware in creating computer-centric products and services. The field of computer engineering requires the ability to understand and apply mathematics, science, and software development techniques; to research concepts and apply modeling method, to simulate and test working conditions and their impact on the designed systems, and to synthesize different elements in order to obtain the optimum design of a specific product.

The increasing sophistication in products and systems requires industry to hire academically qualified computer engineers who can apply modern techniques and methods of engineering. Examples include computer-aided design, computer assisted engineering, computer-vision embedded systems, intelligent control and power systems, and robotics.

The computer engineer of the 21st century must be able to think critically in broader contexts because problems in contemporary society are not only technical but also social and economic in nature. This program provides the student with a broad computer engineering education enhanced by courses in manufacturing engineering, electrical engineering, computer science, mechanical engineering, economics, humanities, social science, world and United States cultures, and liberal arts.

Graduates have the opportunity to work in a diverse spectrum of professional fields. These vary from research to design, development to manufacturing, and technical sales to production. Many computer engineers work in manufacturing-related areas such as in the analysis and design of varied products as well as in non-technical sectors of the economy such as business, law, and management. Graduates will also be prepared to continue their education at the graduate level.

The computer engineering curriculum provides students with a sound foundation in basic science, mathematics, humanities, communication skills and technical subjects. Design project and teamwork, as well as ethics and professional responsibilities of an engineer are emphasized throughout the curriculum.

Educational Objectives

The educational objectives of the Miami University Computer Engineering Program are to produce graduates who:

- have a successful career based on computer engineering education.
- understand the fundamentals of mathematics, physical science, and engineering science and are able to apply this knowledge to the solution of engineering problems.
- can function effectively in a multidisciplinary team environment.
- are skillful in oral and written communication.
- continue to develop professionally through a life-long learning process.
- exhibit a high standard of ethical conduct and citizenship.
- have a global view and inspiration.

To achieve these objectives, we expect our graduates to attain the following program outcomes upon their graduation:

- an ability to apply knowledge of mathematics, science, and engineering.
- an ability to design and conduct experiments, as well as to analyze and interpret data.
- an ability to design a system, component, or process to meet desired needs.
- an ability to function in multi-disciplinary environments.
- an ability to identify, formulate, and solve engineering problems.
- an understanding of professional and ethical responsibility.
- an ability to communicate effectively.
- the broad education necessary to understand the impact of engineering solutions in a global societal context.
- a recognition of the need for, and an ability to engage in life-long learning.
- a knowledge of contemporary issues.
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Credit/No Credit Policy

All required engineering and computing courses and prerequisite mathematics and statistics courses must be taken for a grade.

Program Requirements: Computer Engineering

(128 semester hours)

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities, and Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (18 hours)
CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB, LAB)
PHY 181,183 The Physical World and Lab (4, 1) (MPF IVB, LAB)
PHY 182,184 The Physical World and Lab (4, 1) (MPF IVB, LAB)
Miami Plan Foundation Biological Science Elective (3) (MPF IVA)

Mathematics (19 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 222 Linear Algebra (3)
MTH 251 Calculus II (4)
MTH 252 Calculus III (4)
MTH 347 Differential Equations (3)

Computer Science (12 hours)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)
CSE 274 Data Abstraction and Data Structures (3)
CSE 381 Operating Systems (3)

General Engineering (4 hours)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)

Required Electrical and Computer Engineering (36 hours)
ECE 205 Electric Circuit Analysis I (3)
ECE/CSE 278 Computer Architecture (3)
ECE 287 Digital Systems Design (4)
ECE 304 Electronics (3)
ECE 305 Electric Circuit Analysis II (3)
ECE 306 Signals and Systems (3)
ECE 345 Random Signal Processing (3)
ECE 387 Embedded System Design (4)
ECE 425 Digital Signal Processing (3)
ECE/MME 448 Senior Design Project I (2)
ECE/MME 449 Senior Design Project II (2)
ECE 461 Network Performance Analysis (3)

Professional Computer Engineering Electives (9 hours)
ECE 291 Renewable Energy Systems (3)
ECE 325 Applied Electromagnetics (3)
ECE 414 Introduction to VLSI Circuit and System Design (3)
ECE 426 Biomedical Signal Analysis (3)
ECE 427 Radar Signal Processing (3)

ECE 428 Real-Time Digital Signal Processing (3)
ECE 429 Digital Image Processing (3)
ECE 430 Electromagnetics in Wireless Sensing and Communications (3)
ECE/MME 436 Control of Dynamic Systems (3)
ECE 453 Communication Systems (3)
ECE 491 Power Systems Engineering (3)

General Technical Electives (3 credits)
Choose 3 credits from the following list:
Additional courses from the Professional CpE Elective list
CSE 201, 241, 273, 283, 385, 386, 443, 464, 467, 471, 486
MTH 331, 432, 438, 441, 451, 453
PHY 286, 291/293, 341, 421, 423, 441
MME 211 or PCE 219 (not both), EGM/MGT 311, MME/PCE 314

General Technical Electives are subject to the following rules:
Courses cannot be double-counted as both Professional CpE Electives and General Technical Electives.
Other courses may be approved by petition.

Computer Science- Bachelor of Science in Computer Science

For information, contact the Department of Computer Science and Software Engineering 205 Benton Hall (513-529-0340), or visit *http://cse.muohio.edu*.

This program is accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (CAC/ABET), 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

If you want to change the world and you like to think analytically and solve problems, enjoy mathematics, and are interested in working with computers and technology, consider a major in computer science. Innovations such as the Internet, wireless phones, websites like Facebook, and online shopping all owe their foundations to developments in computer science. The computer science major at Miami provides you with a thorough understanding of the key principles and practices of computing as well as the mathematical and scientific principles that underpin them. You will study programming languages, algorithms, computer architecture, operating systems, and applications of computer science such as computer networks, computer security, computer games, and the ethical and social implications of computer technology. The U.S. Bureau of Labor job outlook for computer science graduates is excellent. Jobs are expected to grow 37% from 2006 to 2016, much faster than average for all occupations. Job increases will be driven by very rapid growth in computer systems design and related services, which is projected to be one of the fastest growing industries in the U.S. economy. The median annual earnings for computer specialists is approximately $68,000. According to the National Association of Colleges and Employers, starting offers for graduates with a bachelor's degree in computer science averaged $53,396.

Upon entering this program, you should have an interest in analytical thinking and problem solving, an aptitude for mathematics, and an interest in working with computers and technology. A high school background in computers is not necessary to major in computer science because the program includes introductory courses needed for the major.

Graduates typically work as software engineers, consultants, programmers, network systems analysts, computer scientists, systems programmers, network administrators, or database administrators. Other graduates continue their education in graduate school or start their own businesses.

Educational Objectives

The Miami Plan forms the foundation of liberal education at Miami University. This plan is guided by four principles: ***critical thinking, understanding of contexts, engaging with other learners, and reflection and action.***

Our program emphasizes ***critical thinking*** by promoting the *scientific principles, analysis techniques, and design methodologies* that form the basis for critical thinking in computer science. We promote *understanding of the social* ***context*** *and broader impacts of technology*, which is necessary for leadership and for integration of computing into business. By requiring students to ***engage with other learners***, we develop their abilities to *communicate clearly, and work in teams responsibly*. This pattern of deep ***reflection***, broad understanding, and engagement with others is transformed into ***action*** through coursework that emphasizes a mixture of theoretical foundations and hands-on application.

Depth. Computer Science graduates will have acquired a sufficient knowledge and understanding of the field of computer science including scientific principles, analysis techniques, and design methodologies to:

- Be successfully employed, pursue a graduate degree, or continue their professional education

Breath. Computer Science graduates will have a broad liberal education enabling them to:

- Be adaptable and able to grow from their first job to lead or influence technical projects.
- Demonstrate an understanding of the context and broader impacts of technology in their organization.

Professionalism. Computer Science graduates will be prepared for modern work environments, where they will:

- Demonstrate the skills necessary for clear communication, responsible teamwork, and time management.
- Demonstrate professional attitudes and ethics.

To help to achieve the educational objectives, all computing and engineering programs offered by the School of Engineering and Applied Science (SEAS) have outcomes, which we expect our graduates to attain upon their graduation. These outcomes are designed to comply with the program outcomes defined by the accreditation agency, ABET - Accreditation Board for Engineering and Technology (111 Market Pl., Suite 1050, Baltimore, MD 21202, http: http://www.abet.org/).

For more information, visit our website at *http://cse.muohio.edu.*

Departmental Honors

If you excel in your studies, you may qualify for the University Honors Program or the program for Honors in Computer Science and Software Engineering. As a senior in these programs you will have the opportunity to work closely with the faculty on research projects of interest.

Credit/No-Credit Policy

All required computer science courses and prerequisite mathematics and statistics courses must be taken for a grade.

Graduate Study

The department offers a combined bachelor's/master's degree program that allows students to complete bachelor's and master's degrees in computer science in an accelerated manner. Students are eligible to apply for this program in their junior year. Please contact the CSE department office for more information.

Additional information is available from the CSE department office and website *http://cse.muohio.edu*.

Program Requirements: Computer Science
(128 semester hours minimum)

English (9 hours)
Miami Plan English Composition Electives (6) (MPF I)
ENG 313 Introduction to Technical Writing (3)

Fine Arts, Humanities, and Social Science (9 hours)
COM 135 Public Expression and Critical Inquiry (MPF IIB)*
ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**
ECO 202 Principles of Macroeconomics (3) (MPF IIC)
Miami Plan Fine Arts elective (3) (MPF IIA)
Additional elective (MPF IIA, B, or C)

* COM 231 can be substituted for COM 135, however COM 231 does not fulfill the Miami Plan humanities requirement.

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" course specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Additional Requirement (3 hours)
Select one additional non-technical course in an area such as humanities, fine arts, social science, US or world cultures, business, or foreign language. See your CSE advisor for other possibilities

Natural Science (12-13 hours)
Choose one of the following science sequences:
PHY 181 with 183 lab, followed by 182 with 184 lab, plus a 3-hour Miami Plan Biological Science

CHM 141 with 144 lab, followed by 142 with 145 lab, plus a 3 hour Miami Plan Biological Science

BOT/MBI/ZOO 115, followed by 116, plus 4 hours of Miami Plan Physical Science

Mathematics and Statistics (16-18 hours)
All of these:
MTH 151 Calculus I (5) (MPF V) **or**
MTH 153 Calculus I (4)
MTH 231 Elements of Discrete Mathematics (3)
MTH 251 Calculus II (4) **or**
MTH 249 Calculus II (5)
STA 301 Applied Statistics **and**
STA 401 Probability (3, 3)

Note: Computer science majors are required to take at least 30 hours of mathematics, at or beyond MTH 151, statistics, and natural science courses.

Computer Science Requirements (38 hours)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 201 Introduction to Software Engineering (3)
CSE 262 Technology, Ethics, and Global Society (3)
CSE 271 Object-Oriented Programming (3)
CSE 274 Data Abstraction and Data Structures (3)
CSE 278 Computer Architecture (3)
CSE 283 Data Communication and Networks (3)
CSE 381 Operating Systems (3)
CSE 385 Database Systems (3)
CSE 448 Senior Design Project I (2) (MPC)*
CSE 449 Senior Design Project II (2) (MPC)*
CSE 464 Algorithms (3)
CSE 486 Introduction to Artificial Intelligence (3)
EAS 101 Computing, Engineering, and Society (1)

* IMS 440 Interactive Media Studies Practicum may be substituted for CSE 448/449, but only with prior approval from the CSE Department. See your CSE academic advisor before enrolling in IMS 440.

CSE Electives (15 hours)
At least 9 hours (3 courses) of computer science electives:
CSE 383 Client Server Systems (3)
CSE 386 Introduction to Computer Graphics (3)
CSE 465 Comparative Programming Languages (3)
CSE 467 Computer and Network Security (3)
CSE 470 Special Topics (3)
CSE 471 Simulation (3)
CSE 473 Automata, Formal Languages, and Computability (3)
CSE 474 Compiler Design (3)
CSE 485 Advanced Database Systems (3)
CSE 487 Game Design and Implementation (3)

0 to 6 hours (2 courses) of affiliate electives:
CSE 211 Software Construction (3)
CSE 212 Software Engineering for Human Computer Interaction (3)
CSE 241 Computational Modeling and Simulation (3)
CSE 270 Special Topics (3)
CSE 273 Optimization Modeling (3)
CSE 311 Software Architecture and Design (3)
CSE 321 Software Quality Assurance and Testing (3)
CSE 322 Software Requirements (3)
CSE 372 Stochastic Modeling (3)
CSE 443 High Performance Computing & Parallel Programming (3)

0 to 3 hours of research electives:
CSE 340U University Summer Scholars (requires petition)
CSE 480 Special Problems (honors Program) (1-3 hours)
CSE 491 Undergraduate Research

Free electives:
You are required to complete 128 semester hours of coursework in order to graduate. In addition to courses you take to satisfy the requirements of your major, you will need to take enough free electives to complete this requirement. These can come from any courses that Miami offers. No more than 10 may come from physical education courses numbered 110-170.

Electrical Engineering- Bachelor of Science in Engineering

For information, contact the Department of Electrical and Computer Engineering, 260 Engineering Building (513-529-0741).

This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

Electrical engineering is the process of applying electric and magnetic phenomena in an innovative way to create useful products and services. Progress in electrical engineering led society from the electricity age through communication and computer ages to the current information age. The profession encompasses a broad range of concentration areas such as electronic circuits, instrumentation and control, integrated circuits, electromagnetics, power and energy, communications, computers and networks, and signal processing. Products and services like electricity, broadcasting, computers, cellular phones, navigation equipment, and the internet affect and influence every aspect of modern civilization. The widespread utilization of electrical means of measurement and control, computers, and communications has resulted in the need for electrical engineers in all types of industries. Excellent employment opportunities exist for well-prepared graduates.

Miami's electrical engineering curriculum provides students with a sound foundation in basic science, mathematics, the humanities, communication skills, and technical subjects. Design project management and teamwork as well as ethics and professionalism are emphasized throughout the curriculum.

Educational Objectives

The educational objectives of the Miami University Electrical Engineering Program are to produce graduates who:

- have a successful career based on electrical engineering education.
- understand the fundamentals of mathematics, physical science, and engineering science and are able to apply this knowledge to the solution of engineering problems.
- can function effectively in a multidisciplinary team environment.
- are skillful in oral and written communication.
- continue to develop professionally through a life-long learning process.
- exhibit a high standard of ethical conduct and citizenship.
- have a global view and inspiration.

To achieve these objectives, we expect our graduates to attain the following program outcomes upon their graduation:

- an ability to apply knowledge of mathematics, science, and engineering.
- an ability to design and conduct experiments, as well as to analyze and interpret data.
- an ability to design a system, component, or process to meet desired needs.
- an ability to function in multi-disciplinary environments.
- an ability to identify, formulate, and solve engineering problems.
- an understanding of professional and ethical responsibility.
- an ability to communicate effectively.
- the broad education necessary to understand the impact of engineering solutions in a global societal context.
- a recognition of the need for, and an ability to engage in life-long
  learning.
- a knowledge of contemporary issues.

- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Credit/No Credit Policy

All required engineering and computing courses and prerequisite mathematics and statistics courses must be taken for a grade.

Program Requirements: Electrical Engineering
(128 semester hours)

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Fine Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (18 hours)
PHY 181,183 The Physical World and Lab (4, 1) (MPF IVB LAB)
PHY 182, 184 The Physical World and Lab (4, 1) (MPF IVB LAB)
CHM 141,144 College Chemistry and Lab (3, 2) (MPF IVB LAB)
Miami Plan Foundation Biological Science Elective (MPF IVA) (3)

Mathematics & Science (19 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
MTH 222 Linear Algebra (3)
MTH 252 Calculus III (4)
MTH 347 Differential Equations (3)

Computer Science (3 hours)
CSE 153 Introduction to C/C++ Programming (3)

General Engineering (4 hours)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)

Required Electrical and Computer Engineering (39 hours)
ECE 205 Electric Circuit Analysis I (3)
ECE 287 Digital Systems Design (4)
ECE 304 Electronics (3)
ECE 305 Electric Circuit Analysis II (3)
ECE 306 Signals and Systems (3)
ECE 325 Applied Electromagnetics (3)
ECE 345 Random Signal Processing (3)
ECE 387 Embedded System Design (4)
ECE 425 Digital Signal Processing (3)
ECE/MME 436 Control of Dynamic Systems (3)
ECE/MME 448 Senior Design Project I (2)
ECE/MME 449 Senior Design Project II (2)
ECE 453 Communication Systems (3) **or**
ECE 461 Network Performance Analysis (3)

Professional EE electives (9 credits)
Choose 9 credits from the following list:
ECE 414 Introduction to VLSI (3)
ECE 426 Biomedical Signal Analysis (3)
ECE 427 Radar Signal Processing (3)
ECE 428 Real Time Digital Signal Processing (3)
ECE 429 Digital Image Processing (3)
ECE 430 Electromagnetics in Wireless Sensing and Communications (3)
ECE 453 Communication Systems (3)
ECE 461 Network Performance Analysis (3)
ECE 491 Power Systems Engineering (3)

General Technical Electives (9 credits)
Choose 9 credits from the following list:
Additional courses from the Professional EE Elective list
MTH 331, 432, 438, 441, 451, 453
PHY 286, 291/293, 341, 421, 423, 441
CSE 174, 271, 274, 283
MME 211 or PCE 219 (not both), EGM/MGT 311, MME/PCE 314

General Technical Electives are subject to the following rules:
At least 3 credits of General Technical Electives must be 300-level or above.
Courses cannot be double-counted as both Professional EE Electives and General Technical Electives.
Other courses may be approved by petition.

Engineering Management- Bachelor of Science in Engineering

For information, contact the Chair, SEAS Engineering Management Committee, 56 Engineering Building (513-529-0712).

Many of today's global businesses require graduates with interdisciplinary skills in engineering and business. This program provides you with an interdisciplinary education in engineering, business and management, science, mathematics, and liberal education. You choose an engineering specialty (manufacturing engineering, environmental engineering, paper science and engineering or systems analysis) and a Thematic Sequence of courses in another discipline, as well as a variety of choices within the foundation courses of the Miami Plan. This broad educational experience will help you address technological problems in their large organizational and societal contexts. You can gain valuable work experience by participating in our co-op or internship programs.

As a graduate, you will be qualified to fill technical positions that require interaction with business aspects of operations, purchasing, personnel, accounting, and marketing. Examples of such positions include technical sales, line supervision, purchasing, environmental protection, and quality control.

Educational Objectives

The following are the educational objectives of the Miami University Engineering Management program with Manufacturing Engineering, Environmental Engineering, Paper Science and Engineering or Systems Analysis Technical Specialties. These are achieved and measured several years after the students graduate.

Engineering Management with Manufacturing Engineering Technical Specialty

The program develops students who:

- solve problems by applying the knowledge required for engineering managers.
- solve engineering problems by applying mathematics, basic sciences, and engineering science.
- solve engineering problems by applying engineering design.
- verbally communicate effectively information related to their work.
- write effectively information related to their work.
- serve as an effective team member.
- serve as an effective team leader.
- serve on multidisciplinary teams.
- integrate and utilize fundamental knowledge in computing, business, and liberal arts in their job.
- know and practice ethical responsibility as outlined by the Engineering Code of Ethics.
- engage in continuous learning and intellectual growth.

Engineering Management with Environmental Engineering Technical Specialty

The educational objectives of the program are to:

- Enable a student to gain the technical knowledge, skills, and talents required of an environmental engineer to achieve practical and economical solutions to environmental challenges pertaining to industry and society.
- Enable a student to develop the organizational, leadership and general communication skills needed by professionals at the entry-level and beyond.
- Promote the development of key personal attributes desirable in an engineering graduate.

Engineering Management with Paper Science Technical Specialty

The educational objectives of the program are to:

- Enable a student to gain the technical knowledge, skills, and talents required to allocate resources to achieve practical solutions to challenges in the paper industry or for a company allied to the paper industry.
- Enable a student to develop the organizational, leadership, and general communication skills needed by professionals at the entry-level and beyond.
- Promote the development of key personal attributes desirable in an engineering graduate.

The major will have sound grounding in engineering, sciences, and liberal education, which will facilitate successful pursuit of graduate studies in engineering or other professional degrees, such as business, law, or medicine.

Engineering Management with Systems Analysis Technical Specialty

Graduates from these specialties will:

- Solve computing related problems in a business or engineering environment by applying the knowledge of computing, business, math, science, operations research and engineering fundamentals.
- Design and create software systems to meet client needs in business and engineering applications.
- Apply business management skills in a technical environment.
- Communicate effectively.
- Write effectively.
- Serve as an effective team member.
- Serve as an effective team leader.
- Serve on multidisciplinary teams.
- Integrate and utilize fundamental knowledge in computing, business, and liberal arts in their job.
- Know and practice ethical and social responsibility as outlined by the Computing and Engineering Codes of Ethics.
- Engage in continuous learning and intellectual growth.

Credit/No Credit Policy

All required engineering, chemistry, physics, mathematics, statistics, computer science, and English courses must be taken for a grade.

Program Requirements: Engineering Management

The number of hours needed to graduate depends on your choice of technical specialty, Thematic Sequence, and mathematical preparation. Course requirements for the Miami Plan are listed in that chapter. Many of the courses taken to fulfill the Miami Plan can be used to fill other requirements of this program.

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3)
COM 135 Introduction to Public Expression and Critical Inquiry (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)
ECO 202 Principles of Macroeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (25 hours)
CHM 141,144 College Chemistry/Lab (5) (MPF IVB)
CHM 142, 145 College Chemistry II (5) (for PCE & ENV)
PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB)
PHY 182, 184 The Physical World/Lab (4, 1) (MPF IVB)
Miami Plan Biological Science Elective (3-4) (MPF IVA)

Mathematics/Statistics/Computer Science (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 245 Differential Equations for Engineers (3) **or**
MTH 231 Elements of Discrete Mathematics (3)
MTH 251 Calculus II (4)
STA 368 Introduction to Statistics (4) **or**
STA 301 Applied Statistics (3) **or**
STA 401 Probability (3)

General Engineering (7 hours)
EAS 101 Computing, Engineering & Society (1)
EAS 102 Problem Solving and Design (3)
EGM/MGT 311 Project Management (3)

Remaining Business Core Courses (18 hours)
ACC 221 Introduction to Financial Accounting (3)
MGT 291 Organizational Behavior and Theory (3)
MGT 302 Operations Management (3)
MKT 291 Principles of Marketing (3)

Management Track - select one:

Entrepreneurship
ESP 467 Entrepreneurship: New Ventures (3)
ESP 481 Technology, Products, and Ventures (3)

Human Resources
MGT 303 Human Resources Management (3)
MGT 405 Labor Relations and Conflict Management (3)

Materials Management
MGT 432 Purchasing and Materials Management (3)
MKT 431 Logistics Management (3)

Operations Management
MGT 451 Operations Planning and Scheduling (3)
MGT 453 Productivity Improvement (3)

Purchasing /Procurement Track
MGT 432 Purchasing and Materials Management (3)
MIS 245 Database Systems and Data Warehousing (3)

Note: ECO 201, 202 under Social Science are also Business Core

Manufacturing Engineering Technical Specialty (43 hours)
CSE 372 Analysis of Stochastic Systems (3)
ECE 205 Electric Circuit Analysis (3)
MME 211 Static Modeling of Mechanical Systems (3)
MME 213 Computational Methods in Engineering (3)
MME 223 Engineering Materials (3)
MME 231 Manufacturing Processes (3)
MME/ECE 303 Computer-Aided Experimentation (3)
MME 312 Mechanics of Materials (3)
MME/PCE 314 Engineering Thermodynamics (3)
MME 334 Quality Planning and Control (3)
MME/PCE 341 Engineering Economics (3)
MME 434 Advanced Manufacturing (3)
MME 437 Computer-Integrated Manufacturing Systems (3)
MME/ECE 448/449 Senior Design Project I, II (2, 2)

Paper Science and Engineering Technical Specialty (43 hours):
CHM 231 Fundamentals of Organic Chemistry (4)
PCE 201 Principles of Paper Science and Engineering (3)
PCE 202 Pulp and Paper Physics (3)
PCE 204 Materials and Energy Balance (3)
PCE 219 Statics and Mechanics of Materials (3) or
MME 211 Static Modeling of Mechanical Systems (3)
PCE 301 Pulp and Paper Chemistry (3)
PCE 311 Unit Operations Laboratory I (2)
MME/PCE 313 Fluid Mechanics (3)
MME/PCE 314 Engineering Thermodynamics (3)
MME/PCE 341 Engineering Economics (3)
PCE 404 Papermaking (3)
PCE 471 Engineering Design I (2) (MPC)
PCE 472 Engineering Design II (2) (MPC)
PCE 482 Process Control (3)
PCE 490 Special Topics (1)

Choose one:
PCE 405 Industrial Environmental Control (3)
PCE 490 Special Topics (3)

Environmental Engineering Technical Specialty (39 hours):
CHM 231 Fundamentals of Organic Chemistry (4)
PCE 204 Materials and Energy Balance (3)
PCE 219 Statics and Mechanics of Materials (3) or
MME 211 Static Modeling of Mechanical Systems (3)
PCE 244 Introduction to Environmental Engineering (3)
PCE 311 Unit Operations Laboratory I (2)
MME/PCE 313 Fluid Mechanics (3)
MME/PCE 314 Engineering Thermodynamics (3)
MME/PCE 341 Engineering Economics (3)
PCE 405 Industrial Environmental Control (3)

PCE 415 Chemical Kinetics and Reactor Design (3)
PCE 441 Pollution Prevention in Environmental Management (3)
PCE 442 Air Pollution Control (3)
PCE 471 Engineering Design I (1)
PCE 472 Engineering Design II (2)

Systems Analysis Technical Specialty (46-47 hours):
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 201 Introduction to Software Engineering (3)
CSE/CIT 262 Technology, Ethics, and Global Society (3)
CSE 271 Object-Oriented Programming (3)
CSE 273 Optimization Modeling (3)
CSE 274 Data Abstraction and Data Structures (3)
CSE 372 Analysis of Stochastic Systems (3)
CSE 385 Database Systems (3)
CSE 471 Simulation (3)
CSE/ECE/MME 448/449 Senior Design Project I, II (2, 2) (MPC)
MME/PSE 341 Engineering Economics (3)

Choose one from: (3 hours)
CSE 464 Algorithms (3)
CSE 484 Manufacturing Planning Systems (3)

Choose two electives from: (6 hours)
Any 200-level or higher CSE, ECE, MME or PCE course
MTH 252 Calculus III (4)
MTH 347 Differential Equations (3)
Any 400 or higher MTH course
Any 400 or higher STA course

Engineering Technology- Bachelor of Science in Applied Science

For information, contact the Department of Engineering Technology, 207 Phelps Hall, Hamilton campus (513-785-1804).

This department offers associate degree programs in electrical and computer engineering technology and mechanical engineering technology and baccalaureate completion degree programs. All programs are offered on the regional campuses in Hamilton and Middletown. The baccalaureate programs are for students who have earned an associate degree. The associate degree programs are described in the Hamilton and Middletown chapter.

Educational Objectives

We consider program educational objectives as the general characteristics our graduates demonstrate to the workplace, graduate school, the military, or their endeavors after they leave Miami. We typically measure these characteristics initially at graduation by asking graduates if they feel that they have achieved these characteristics and then periodically thereafter through employer surveys, letters from graduates, advisory council, graduate school accomplishments, and surveys of graduates who have been out for a while. These characteristics should become most evident within the first few years after graduation.

The Engineering Technology Department's graduates are able to:

- apply math and physics principles to the solution of engineering technical problems.
- use applied skills to identify, evaluate, and solve complex technical problems.
- use engineering computer software to facilitate engineering problem solving.
- function effectively in team-oriented activities.
- demonstrate the knowledge of expected standards of ethical and professional conduct.
- verbally communicate ideas.
- prepare well-written technical reports.

In addition, our graduates will have the necessary fundamentals to pursue life-long learning.

Program-Specific Educational Objectives

Electrical and Computer Engineering Technology (A.A.S.)
The ECET program produces graduates who:

- analyze digital and analog electrical and electronic circuits, identify problem areas, and maintain these systems.
- function effectively as electrical and computer engineering technicians in state and regional industries.

Electro-Mechanical Engineering Technology (B.S. Completion Program)
The EMET program produces graduates who:

- possess the ability to apply theoretical knowledge to solve engineering technology problems associated with instrumentation and control systems.
- are knowledgeable of modern applications in process control systems.

Mechanical Engineering Technology (A.A.S. & B.S.)
The MET program produces graduates who:

- are able to analyze and design complex mechanical components and systems.
- are able to set up experimental testing procedures and selectively utilize data to reinforce engineering concepts.
- have a basic understanding of modern manufacturing methods used to facilitate the production of consumer products.
- are able to effectively and efficiently manage engineering projects (B.S. only).

Credit/No Credit Policy

All required engineering technology courses and prerequisite mathematics and statistics courses should be taken for a grade.

Baccalaureate Degree Program- Electro-Mechanical Concentration

The Engineering Technology baccalaureate degree (Electro-Mechanical concentration) is a completion program for graduates of associate degree programs in electrical/electronics, mechanical, electro-mechanical or similar engineering technology programs. The objective of this program is to allow students who possess an associate degree in these areas to complete the bachelor degree in approximately the equivalent of two years of full-time work (64-70 semester hours).

Graduates are engineering technologists prepared to fill industrial positions in areas directly related to scientific programming, product design, process control, testing, manufacturing, sales, and service. Typical engineering technologist's duties may include working in teams involved with product analysis/design, instrumentation and control, CAD/CAM product design, laboratory testing services, product sales and service, product application, and the design of systems that require a hardware/software interface.

Program Requirements: Engineering Technology (Electro-Mechanical concentration)

(129-134 semester hours)

Between 65 and 70 hours of course work beyond the 64 hours earned for an associate's degree are required to complete this program. Total hours for graduation depend on your selection of a Miami Plan Thematic Sequence, your mathematical preparation, and the prerequisite courses taken as part of your associate degree. Prerequisites, completed in the associate degree, are described below.Curriculum Summary (beyond associate's degree)

General education and nontechnical courses (18 hours minimum)

Liberal education electives
ENG 112 Composition and Literature (3) (MPF I)

Miami Plan electives from fine arts, humanities and social science
Global Perspectives (9) (MPF III)*
Thematic Sequence (6-9)

* Must include one course that presents a historical perspective (H). Select MP Foundation courses to also satisfy requirements for associate degree and baccalaureate completion program.

Mathematics and science (15 hours)
MTH 251 Calculus II (4)
CHM 141 College Chemistry (3) (MPF IVB) **and**
CHM 144 Lab (2) (LAB)
STA 301 Applied Statistics (3)
Miami Plan biological science elective (3) (MPF IVA)

Engineering technology requirements (31 hours minimum)
This electro-mechanical concentration of courses provides depth in mechanical, electrical, and software integration necessary for automation.
ENT 301 Dynamics (3)
ENT 310 Fluid Mechanics (3)
ENT 311 Process Control Interface Design (3)
ENT 316 Project Management (3)
ENT 401 Computerized Instrumentation (3)
ENT 402 Industrial Automation Lab (3)
ENT 407 Topics in Electro-Mechanical Engineering Technology (3)
ENT 418 Electro-Mechanical Control Systems (3)
ENT 497 Senior Design Project (2) (MPC)
ENT 498 Senior Design Project (2) (MPC)

Prerequisites (64 semester hours)
Thirty-two hours of non-technical and basic program support courses and 32 hours of technical course work must be included in your associate degree.

Nontechnical and basic support courses, including equivalent of these (32 hours)
COM 135 Introduction to Public Expression and Critical Inquiry (3) (MPF IIB) **or**
COM 136 Introduction to Interpersonal Communication (3) (MPF IIC)
CSE 153 Introduction to C/C++ Programming (3) or
CSE 163 Introduction to Computer Concepts and Programming (3)
ECO 201 Principles of Microeconomics (3) (IIC, MPF)
ENG 111 College Composition (3)
ENG 215 Technical Writing (3) **or**
ENG 313 Introduction to Technical Writing (3)
MTH 125 Precalculus (5)
MTH 151 Calculus I (5)
PHY 171, 172 College Physics/Lab (3, 3) **or**
PHY 181, 182 The Physical World/Lab (4, 4) (MPF IVB)
PHY 183, 184 The Physical World/Lab (1, 1) (MPF IVB, LAB)
Miami Plan electives from fine arts, humanities and social science (MPF IIA, IIB, IIC) or Global Perspectives (at least 3 hours) *

* Must include one course that presents a historical perspective (H). Select MP Foundation courses to also satisfy requirements for associate degree and baccalaureate completion program.

Technical course work, including equivalent of these (32 hours):
ENT 135 Computer-Aided Drafting (3)
ENT 151 Engineering Materials (3)
ENT 192 Circuit Analysis I (3)
ENT 196 Electronics (3)
ENT 271 Mechanics I: Statics (3)
ENT 272 Strength of Materials (3)
ENT 293 Digital Switching (3)

Baccalaureate Degree Program- Mechanical Engineering Technology Concentration

The Engineering Technology baccalaureate degree (Mechanical Engineering Technology concentration) is a completion program for graduates of associate degree programs in mechanical engineering technology. The objective of this program is to allow students who possess an associate degree in this area to complete the bachelor degree in approximately the equivalent of two years of full-time work (64-70 semester hours).

Mechanical Engineering Technology focuses on applications engineering and the analysis of the mechanical components of mechanisms, machines, products, and systems. The program requires a thorough understanding of applied mathematics and the engineering sciences. Students will develop the essential skills needed to apply experimental and empirical techniques to the study of systems and the solution of problems. This knowledge is used to research concepts, apply modeling methods, simulate and test operating conditions and their impact on the designed systems, and synthesize different elements to obtain an optimum design of a specific product.

Industry is in need of qualified mechanical engineering technologists who are able to apply such tools as computer-aided design (CAD), finite element modeling and analysis, and the concepts of advanced mechanical design to the creation of sophisticated machines and systems.

The mechanical engineering technology concentration provides depth of study in mechanical and manufacturing engineering technology built on a solid foundation of mathematics, physics, and computer science. The program also provides breadth through required studies in economics, humanities, social science, United States and world cultures, and liberal arts.

Graduates will find employment opportunities in a diverse spectrum of professional fields. Many mechanical engineering technologists work on team projects within manufacturing-related areas such as testing, analysis, design, and the development of products. Graduates may also continue their education at graduate engineering technology/engineering levels.

Program Requirements: Mechanical Engineering Technology
(129-135 semester hours)

English (9 hours)
ENG 111 College Composition (3) (MPF I)
ENG 112 Composition and Literature (3) (MPF I)
ENG 215 Technical Writing (3)

Mathematics/Statistics/Computer Science (20 hours)
CSE 163 Introduction to Computer Concepts and Programming (3)
MTH 125 Pre-Calculus (5)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
STA 301 Applied Statistics (3)

Fine Arts, Humanities and Social Science (20 hours)
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB) **or**
COM 136 Introduction to Interpersonal Communication (3) (MPF IIC)
ECO 201 Principles of Microeconomics (3) (MPF IIC)
Miami Plan II Fine Arts, Humanities, or Social Science Elective (3)
Miami Plan IIA Fine Arts Elective (3)

Natural Science (16 hours)
CHM 141,144 College Chemistry/Lab (3, 2) (MPF IVB)
PHY 181,182 The Physical World (4, 4) (MPF IVB) **or**
PHY 171, 172 College Physics (3, 3)
PHY 183,184 The Physical World Lab (1, 1) (MPF IVB, LAB)

Mechanical Engineering Technology Required Courses (56 hours)
ENT 135 Computer-Aided Drafting (3)
ENT 137 Introduction to Engineering Technology (1)
ENT 151 Engineering Materials (3)
ENT 152 Computer-Aided Manufacturing I (3)
ENT 192 Circuit Analysis I (3)
ENT 235 Computer-Aided Design (3)
ENT 252 Computer-Aided Manufacturing II (3)
ENT 271 Mechanics I: Statics (3)
ENT 272 Mechanics II: Strength of Materials (3)
ENT 278 Mechanics III: Analysis of Machine Components (3)
ENT 301 Dynamics (3)
ENT 310 Fluid Mechanics (3)
ENT 312 Thermodynamics and Heat Power (3)
ENT 314 Mechanisms for Mechanical Design (3)
ENT 316 Project Management (3)
ENT 333 Computational Methods for Engineering Technology (4)
ENT 355 Introduction to Finite Element Analysis (3)
ENT 404 Experimentation Techniques (3)
ENT 415 Heat Transfer with Applications (3)
ENT 416 Topics in Mechanical Vibrations (3)
ENT 497 Senior Design Project (2)
ENT 498 Senior Design Project (2)

General Engineering- Bachelor of Science in Engineering

For information, contact the Office of the Dean, 106 Benton Hall (513-529-0700).

The General Engineering major provides students with a rigorous introduction to the fundamentals of the engineering discipline. It strengthens student problem-solving skills and comprehension of the role of engineering in modern society. Problem solving skills include the ability to understand, apply, and integrate liberal arts, math, science, computing, technology and engineering science. The program of study enables students to appreciate and comprehend engineering practice in the context of fields typically outside of engineering. As such, the major is not ABET accredited, and is not intended for students wishing to practice engineering for their careers; students who intend to be practicing engineers should choose one of our traditional engineering majors.

Graduates will be prepared well for the 21st century by being able to think critically in broader contexts, because problems in contemporary society are not only technical but also social and economic in nature. This program provides the student with a broad engineering education enhanced by courses in computer science, economics, humanities, social science, global cultures and fine arts. There is significant flexibility for the student to self-design both an engineering concentration and a non-technical focus area, including but not limited to pre-med, pre-law and public policy. A critical component to this student-driven process is faculty advisors, who are experienced in helping students design the pathway to fulfill their goals.

The program is designed to encourage double-majors, co-majors and minors to comprise the non-engineering focus areas of the students' interest. It is also flexible enough to accommodate student-designed focus areas that do not currently exist in another form at Miami. In these cases, the General Engineering student works directly with their faculty advisor and appropriate personnel in other departments to design the specialization area. Ultimately, a discussion with a General Engineering advisor will help clarify the possibilities available to students.

Graduates of the General Engineering major may pursue graduate education to further specialize in any field of their choice, such as business, medicine, architecture and law. In addition, graduates will be able to work in a diverse spectrum of technical and non-technical fields such as public policy, policy analysis, technical sales and other fields where an advanced technology background and global perspective would be a recognized asset.

Credit/No Credit Policy

All required engineering courses and prerequisite and co-requisite mathematics and statistics courses must be taken for a grade.

Program Requirements: General Engineering

(The General Engineering curriculum requires a minimum of 128 credit hours. Total credit hours depends choice of Thematic Sequence128-138 semester hours)

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (30 hours)
CHM 141 and 144 College Chemistry and Lab (3, 2) (MPF IVB, LAB)
PHY 181 and 183 The Physical World and Lab (4,1) (MPF IVB, LAB)

Completion of one of the following science sequences (be sure to consider your Engineering Concentration area when selecting this sequence):
CHM 141, 142, CHM 144, 145
PHY 181, 182, 183, 184
BOT/MBI/ZOO 115, 116 (MPF IVA)

If you complete the Physics or Chemistry sequence, you will also need a Miami Plan Biological Science (3)

Mathematics and Statistics (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 251 Calculus II (4)
At least two additional MTH and STA courses depending on your Engineering Concentration area.

Engineering Core (Breadth) (16 hours)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)
CSE 153 Introduction to C/C++ Programming (3) **or**
CSE 163 Introduction to Computer Concepts and Programming (3) **or**
CSE 174 Fundamentals of Programming and Problem Solving (3)

Three of the following four courses:
CSE 273 Optimization Modeling (3)
ECE 205 Electric Circuit Analysis (3)
MME 211 Static Modeling of Mechanical Systems (3)
PCE 204 Material and Energy Balances (3)

Engineering Concentration (Depth) (15 hours)

The concentration in engineering must consist of at least five courses (minimum of 15 credit hours) within the SEAS which are related thematically or departmentally. At least two of these courses must be at the advanced level (300 or above). Students are encouraged to develop their Engineering Concentration with the help of their faculty advisor.

Ethics or Social Concerns Elective (3 hours)

One elective course in ethics, the environment, energy, sustainability, history of technology, or some other area providing a social perspective on technology. This course is in addition to the other requirements listed above.

Foreign Language (3-14 hours)
Pass a language course at the 202-level or higher (excludes any course taught in English) consistent with the CAS foreign language requirement.

Capstone Experience (3 hours)

This course should provide a capstone experience for either your Non-Engineering Focus Area or your Engineering Concentration and is taken in addition to the hours required for the focus or concentration area.

Non-Engineering Focus Area and Thematic Sequence **(18 hours)**

The focus area requirement can be filled by (1) completing a minor outside the SEAS, (2) completing the pre-professional requirements for advanced study in a health care field or law, (3) completing another major or co-major outside the SEAS, or (4) proposing and receiving approval for a cohesive group of courses outside the SEAS that include a thematic sequence. This requirement may overlap with required MTH, Science or Miami Plan courses and will likely meet the Miami Plan thematic sequence requirement.

Manufacturing Engineering- Bachelor of Science in Engineering

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Engineering Building (513-529-0710).

This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

The primary mission of the department is to provide quality graduates to meet societal and industrial needs. Manufacturing engineering deals with product and process design. It requires ability to plan the practices of manufacturing; to research and develop tools, manufacturing processes, machines and equipment, control strategies; and to integrate the facilities and systems so that quality products can be produced at a competitive cost.

Industry has a pressing need for academically qualified manufacturing engineers due to the fact that today's products and the technology to manufacture them have become increasingly more sophisticated. Examples of new manufacturing technologies

being applied to increase productivity, improve quality, and reduce costs include computer-aided design, robotics, statistical process control, and computer-integrated manufacturing systems.

Contemporary society's and industry's problems are not only technical, but also social and economic. The department provides graduates with in-depth education in mathematics, science, engineering science, manufacturing processes and methods, and engineering design, as well as requiring a broad education in computing, business, and liberal arts. The department is committed to excellence in undergraduate education: student learning, classroom effectiveness, assessment, engineering design and ethics integration, opportunities for leadership and student advising.

Graduates typically work as manufacturing engineers in areas such as product and process design, quality control, computer-aided manufacturing, and plant-facilities engineering. After having gained industrial experience in the above areas, graduates can move into technical management positions. Graduates may also continue their education at the graduate level. Graduating seniors are encouraged to take the Fundamentals of Engineering examination, which is the first of two examinations that lead to becoming a licensed professional engineer.

Educational Objectives

The following are the educational objectives for the Manufacturing Engineers. These are achieved and measured 2-5 years after the students graduate. The program develops students who:

- solve problems by applying the knowledge required for manufacturing engineers.
- solve engineering problems by applying mathematics, basic sciences, and engineering science.
- solve engineering problems by applying engineering design.
- verbally communicate effectively information related to their work.
- write effectively information related to their work.
- serve as an effective team member.
- serve as an effective team leader.
- serve on multidisciplinary teams.
- integrate and utilize fundamental knowledge in computing, business, and liberal arts in their job.
- know and practice ethical responsibility as outlined by the Engineering Code of Ethics.
- engage in continuous learning and intellectual growth.

Departmental Honors

If you excel in your studies, you may qualify for the University Honors Program or the program for Honors in Mechanical and Manufacturing Engineering. As a senior in these programs, you will have the opportunity to work closely with the faculty on research projects of interest.

Credit/No Credit Policy

All required engineering courses and all prerequisite and co-requisite courses must be taken for a grade.

Program Requirements

(128 semester hours minimum)

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (18 hours)
CHM 141,144 College Chemistry/Lab (3, 2) (MPF IVB LAB)
PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB LAB)
PHY 182, 184 The Physical World/Lab (4, 1)
Miami Plan Foundation Biological Science Elective (3) (MPF IVA)

Mathematics and Statistics (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 245 Differential Equations for Engineers (3)
MTH 251 Calculus II (4)
STA 368 Introduction to Statistics (4)

General Engineering (4 hours)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)

Additional Required Courses in Major:
ECE 205 Electric Circuit Analysis (3)
MME 211 Static Modeling of Mechanical Systems (3)
MME 213 Computational Methods in Engineering (3)
MME 223 Engineering Materials (3)
MME 231 Manufacturing Processes (3)
MME 311 Dynamic Modeling of Mechanical Systems (3)
MME 312 Mechanics of Materials (3)
MME 334 Quality Planning and Control (3)
MME 411 Machine and Tool Design (4)
MME 434 Advanced Manufacturing (3)
MME 435 Manufacturing Topics (3)
MME 437 Computer-Integrated Manufacturing Systems (3)
MME/ECE 303 Computer-Aided Experimentation (3)
MME/ECE 436 Control of Dynamic Systems (3)
MME 448 Senior Design Project (MPC) (2)
MME 449 Senior Design Project (MPC) (2)
MME/PCE 313 Fluid Mechanics (3)
MME/PCE 314 Engineering Thermodynamics (3)
MME/PCE 341 Engineering Economics (3)

Technical Electives *select two:*
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object Oriented Programming (3)*
CSE 273 Optimization Modeling (3)
CSE 278 Computer Architecture (3)
CSE 372 Analysis of Stochastic Systems (3)
CSE 484 Manufacturing Planning Systems (3)
ECE 287 Digital Systems Design (4)
ECE 304 Electronics (3)
ECE 305 Electric Circuit Analysis II (3)
ECE 306 Signals and Systems (3)
MME 315 Mechanical Vibrations (3)
MME/PCE 403 Heat Transfer (3)
MME 412 Advanced Mechanics (3)
MME 414 Engineering Thermodynamics II (3)
MME 431 Cost Estimating for Engineers (3)
PHY 286 Introduction to Computational Physics (3)
PCE 482 Process Control (3)

* Prerequisite: CSE 174

Mechanical Engineering- Bachelor of Science in Engineering

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Engineering Building (513-529-0710).

This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

Mechanical Engineering encompasses analysis and design of products and mechanical components of machines and systems.It requires the ability to understand and apply mathematics, science, and engineering science; to research concepts and apply modeling methods; to simulate and test working conditions and their impact on the designed systems; and to synthesize different elements in order to obtain the optimum design of a specific product.

The increasing sophistication in products and systems requires industry to hire academically qualified mechanical engineers who can apply current techniques and methods of engineering. Examples include computer-aided design, computer assisted engineering, finite-element analysis, robotics, heat transfer, dynamics, and advanced machine and tool design.

The mechanical engineer of the 21st century must be able to think critically in broader contexts because problems in contemporary society are not only technical, but also social and economic in nature. This program provides the student with a broad mechanical engineering education enhanced by courses in manufacturing engineering, electrical engineering, computer science and engineering, economics, humanities, social science, United States and world cultures, and liberal arts.

Graduates have the opportunity to work in a diverse spectrum of professional fields. These vary from research to design, development to manufacturing, and technical sales to production. Many mechanical engineers work in manufacturing-related areas such as in the analysis and design of varied products and in non-technical sectors of the economy. Graduates will also be prepared to continue their education at the graduate level. Graduating seniors are encouraged to take the Fundamentals of Engineering examination, which is the first of two examinations that lead to becoming a licensed professional engineer.

Educational Objectives

The following are the educational objectives for the Mechanical Engineering Program. These are achieved and measured 2-5 years after the students graduate. The program develops students who:

- solve problems by applying the knowledge required for mechanical engineers.
- solve engineering problems by applying mathematics, basic sciences, and engineering science.
- solve engineering problems by applying engineering design.
- verbally communicate effectively information related to their work.
- write effectively information related to their work.
- serve as an effective team member.
- serve as an effective team leader.
- serve on multidisciplinary teams.
- integrate and utilize fundamental knowledge in computing, business, and liberal arts in their job.
- know and practice ethical responsibility as outlined by the Engineering Code of Ethics.
- engage in continuous learning and intellectual growth.

Departmental Honors

If you excel in your studies, you may qualify for the University Honors Program or the program for Honors in Mechanical and Manufacturing Engineering. As a senior in these programs, you will have the opportunity to work closely with the faculty on research projects of interest.

Credit/No Credit Policy

All required engineering courses and all prerequisite and co-requisite courses must be taken for a grade.

Program Requirements

(131 semester hours*)

* Total hours for graduation depend on your mathematical preparation, computing background, and courses to fulfill the Thematic Sequence. Consult your faculty adviser for course selection.

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (18 hours)
CHM 141,144 College Chemistry/Lab (3, 2) (MPF IVB LAB)
PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB LAB)
PHY 182, 184 The Physical World/Lab (4, 1)
Miami Plan Foundation Biological Science Elective (3) (MPF IVA)

Mathematics (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 222 Introduction to Linear Algebra (3)
MTH 245 Differential Equations for Engineers (3)
MTH 251 Calculus II (4)
STA 368 Introduction to Statistics (4)

General Engineering (4 hours)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)

Additional Required Courses in Major:
ECE 205 Electric Circuit Analysis (3)
MME 211 Static Modeling of Mechanical Systems (3)
MME 213 Computational Methods in Engineering (3)
MME 223 Engineering Materials (3)
MME 231 Manufacturing Processes (3)
MME/ECE 303 Computer-Aided Experimentation (3)
MME 311 Dynamic Modeling of Mechanical Systems (3)
MME 312 Mechanics of Materials (3)
MME/PCE 313 Fluid Mechanics (3)
MME/PCE 314 Engineering Thermodynamics (3)
MME 315 Mechanical Vibrations (3)
MME/PCE 341 Engineering Economics (3)
MME/PCE 403 Heat Transfer (3)
MME 411 Machine and Tool Design (4)
MME 412 Advanced Mechanics of Materials (3)
MME 414 Engineering Thermodynamics II (3)
MME/ECE 436 Control of Dynamic Systems (3)
MME 448 Senior Design Project (2) (MPC)
MME 449 Senior Design Project (2) (MPC)

Technical electives - *select two:*
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)*
CSE 273 Optimization Modeling (3)
CSE 372 Analysis of Stochastic Systems (3)
CSE 484 Manufacturing Planning Systems (3)
ECE 287 Digital Systems Design (4)
ECE 304 Electronics (3)
ECE 306 Signals and Systems (3)
MME 334 Quality Planning and Control (3)
MME 431 Cost Estimating for Engineers (3)
MME 434 Advanced Manufacturing (3)
MME 435 Manufacturing Topics (3)
MME 437 Computer-Integrated Manufacturing Systems (3)
PCE 482 Process Control (3)

* Prerequisite: CSE 174

Nursing- Bachelor of Science in Nursing

For information, contact the Department of Nursing, 152 University Hall, Hamilton campus (513-785-7772), *www.nsginfo@muohio.edu* or *www.eas.muohio.edu/departments/nsg/*.

This department offers two nursing programs: 4-year baccalaureate and RN-BSN completion. The RN-BSN completion program is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006 (800-669-1656). Both baccalaureate programs are pursuing accreditation with the Commission on Collegiate Nursing Education (CCNE), 1 DuPont Circle NW, Suite 530, Washington, DC 20036 (202-887-6791).

Baccalaureate Degree Program (Four Year)

This program provides a balance of liberal arts and professional nursing courses. Emphasis is on the nursing process for health promotion, prevention, restoration, and maintenance with clients, family, and client groups in a variety health settings. Students are involved in activities preparatory for leadership and management roles and graduate study. Clinical experiences are one day a week during one semester of the sophomore year and two days a week during the junior and senior years.

Special Admission Requirements

Admission to this program is selective and competitive. After admission to the university, a separate nursing application is submitted to the Admission Office at the Hamilton or Middletown campus. To be considered for admission to the program, you must meet the following minimum criteria

- be a current high school student with a composite ACT of 23, a cumulative g.p.a. of 3.00, and a 3.00 g.p.a. in science courses (including chemistry with lab, and algebra I and II), OR
- have completed 12 semester hours (100 level or higher) at Miami with a cumulative g.p.a. of 2.50 and a grade of C or better in two of the following courses: ZOO 171, 172; CHM 131; or MBI 161.

Note: Individuals who have a felony conviction may be denied the opportunity to take the State Board of Nursing licensing examination.

Transfer Credit

Transfer credits from other colleges will require departmental evaluation to meet the above criteria. It is important to meet with a department adviser.

Program Requirements:

(134-135 semester hours)

First Year

First semester
CHM 131 Chemistry of Life Processes (4) (MPF IVB)
ENG 111 College Composition (3) (MPF I)
ZOO 171 Human Anatomy and Physiology (4) (MPF IVA)
Miami Plan Foundation IIA Fine Arts course (3)
Miami Plan Foundation IIB Humanities course (3)

Second semester
ENG 112 Composition and Literature (3) (MPF I)
KNH 102 Fundamentals of Nutrition (3)
MBI 161 Elementary Medical Microbiology (4) (MPF IVA)
ZOO 172 Human Anatomy and Physiology (4)
Miami Plan Foundation III G-course elective (3)

Second Year

First semester
NSG 251 Therapeutic Communication in Nursing (3)
NSG 252 Foundations of Professional Nursing (4)
PSY 111 Introduction to Psychology (4)
ZOO 232 Human Heredity (3)
Miami Plan Foundation III G-course elective

Second semester
MBI 361 Epidemiology (3) (MPT)
NSG 261 Health and Physical Assessment (3)
NSG 262 Fundamentals of Professional Nursing Practice (4)
Required psychosocial course, choose from: PSY 231; SOC 202 or 348; EDP 272 or 356
Miami Plan Foundation III G-course course

Third Year

First semester
NSG 349 Introduction to the Principles of Pharmacology in Nursing Practice (3)
NSG 351 Nursing Care of the Childbearing Family (2)
NSG 352 Nursing Care of the Childbearing Family Clinical (3)
NSG 353 Nursing Care of Adults with Health Alterations I (3)
NSG 354 Nursing Care of Adults with Health Alterations I Clinical (3)
Miami Plan Foundation V elective course (3)

Second semester
NSG 343 Health Care Informatics (3)
NSG 361 Nursing Care of Adults with Health Alterations II (3)
NSG 362 Nursing Care of Adults with Health Alterations II Clinical (3)
NSG 363 Nursing Care of Children (2)
NSG 364 Nursing Care of Children Clinical (3)
NSG 365 Nursing Research (2)

Fourth Year

First semester
NSG 402 Professional Nurse Leader (3)
NSG 430 Nursing Care of Aggregates: Families and Communities (3)
NSG 431 Nursing Care of Aggregates: Families and Communities Clinical (3)
NSG 451 Nursing Care of Clients Experiencing Mental Health Disorders (3)
NSG 452 Nursing Care of Clients Experiencing Mental Health Disorders Clinical (3)
NSG elective (3)

Second semester
NSG 435 Challenges in Health Care Delivery (3) (MPC)
NSG 461 Nursing Care of Older Adults (3)
NSG 462 Nursing Care of Older Adults Clinical (3)
NSG 463 Nursing Care of Adults with Multi-System Health Alterations (3)
NSG 464 Nursing Care of Adults with Multi-System Health Alterations Clinical (3)

RN-BSN Completion Program

This program is designed for registered nurses with either a diploma or an associate degree in nursing. The program emphasizes community health, leadership, and complex health problems. Graduates are prepared for leadership and management roles and graduate study. There are two clinical courses. The program is available full-time or part-time. Nursing courses for this program are available online, and a limited schedule is available in the classroom; please check with the Department of Nursing office.

Special Admission Requirements

Admission to this program is selective. After admission to the university, a separate nursing application is submitted to the Department of Nursing BSN Program at Hamilton or Middletown. To be considered for admission to the program, the following minimum criteria must be met: 1) be a registered nurse in the State of Ohio; 2) have met all prerequisite course requirements with a "C" or better in each required course; and, 3) have at least a 2.00 g.p.a.

Graduates of diploma and non-NLNAC accredited associate's degree programs are required to complete 32 Miami semester hours and pass NSG 301, 311, and 313 before their 28 hours of transfer credit will be validated. Graduates of accredited associate's degree programs can transfer 28 semester hours of nursing credit from a regionally accredited two-year college. Additional transfer hours may be used as elective credit.

Transfer Credit

Nursing transfer credits from other colleges will require departmental evaluation to meet the above criteria. It is important to meet with a department adviser.

Program Requirements:

(128 semester hours)

Prerequisites (53 semester hours)
CHM 131 Chemistry of Life Processes (4) (MPF IVB)
ENG 111 College Composition (3) (MPF I)
ENG 112 Composition and Literature (3) (MPF I)
MBI 161 Elementary Medical Microbiology (4) (MPF IVA)
ZOO 171 Human Anatomy and Physiology (4) (MPF IVA)
ZOO 172 Human Anatomy and Physiology (4)
3 hour social science course: select from Miami Plan Foundation (MPF IIC)
28 hours of associate degree nursing courses

Support Courses and Miami Plan Courses (27-28 semester hours)
MBI 361 Epidemiology (3) (MPT)
PSY 231 Developmental Psychology (3) (MPT) **or**
EDP 356 Human Development (3) (MPT) **or**
SOC 202 Social Deviance (4) **or**
SOC 348 Race and Ethnic Relations (3) **or**
EDP/DST 272 Introduction to Disability Studies
ZOO 232 Human Heredity (3) **or**
ZOO 325 Pathophysiology (4)
18 hours of Miami Plan courses: MPF IIA (3), MPF IIB (3), III (9), MPF V (3)
Required Major Courses (34 semester hours)
NSG 301 Theory-Based Nursing Practice (3)
NSG 311 Health Promotion Across Lifespan (3)
NSG 313 Assessment of Well Individual (2)
NSG 317 Teaching Strategies in Health Care (3)
NSG 331 Introduction to Nursing Research (3)
NSG 402 Professional Nurse Leader (3)
NSG 418 Complex Health Problems (3)
NSG 420 Focused Practicum in Baccalaureate and Expanded Nursing Roles (2)
NSG 430 Nursing Care of Aggregates: Families and Communities (3)
NSG 431 Nursing Care of Aggregates: Families and Communities-Clinical (3)
NSG 435 Challenges in Health Care Delivery (Capstone) (3) (MPC)
NSG elective

School Nurse Licensure Program

The School Nurse Licensure Program is designed to prepare practitioners who deliver health services including direct nursing

care and health education to school clients, their families, and the school community. Admission to the program is selective and is for registered nurses who have a BSN or who are in the process of completing the RN-BSN degree at Miami University. Applicants must have a 3.00 g.p.a.

Program Requirements

(23 semester hours)

Required Nursing Courses
NSG 312 Assessment of the Well Child (1)
NSG 405 School Nurse Practicum (10)
NSG/EDP 492/592 Individual with Severe Behavioral Handicaps and/or Emotional Disturbances: Social, Educational, Health, and Legal Issues (3)

Educational Core Courses
EDL 204 Sociocultural Studies in Education (3)
EDL 318E Leadership in Education (3)
EDP 256 Psychology of the Exceptional Learner (3)

Paper Science and Engineering- Bachelor of Science in Paper Science and Engineering

For information, contact the Department of Chemical and Paper Engineering, 64 Engineering Building (513-529-0760).

This program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, http://www.abet.org/).

This program provides a broad science and general engineering education for professional entry-level positions in pulp and paper or allied industries. Students learn to apply scientific and engineering principles to the solution of industry problems by following a course sequence emphasizing chemistry, chemical engineering, and paper engineering. Graduates are qualified for process engineering, production management, technical sales, or research positions.

Merit scholarships provided by the industry-supported Miami University Paper Science and Engineering Foundation enable students with good academic records to receive from partial tuition to as much as full in-state student costs (tuition, fees, room, and board) during undergraduate study. Out-of-state students may be eligible for an additional award of $2,000 per year.

Educational Objectives

The educational objectives of the program are for the graduate to:

- have and apply the technical knowledge, skills, and expertise required of a process engineer to achieve practical solutions to problems in the paper industry or for a company allied to the paper industry,
- have the organizational, leadership, and general communication skills needed by professionals at the entry-level and beyond.
- have the key personal attributes desirable in an engineer and use these attributes to continue to learn and develop.

Program Requirements:

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities, and Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
Miami Plan Humanities elective (3) (MPF IIB)
ECO 201 Principles of Microeconomics (3) (MPF IIC)

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (30 hours)
CHM 141, 144 College Chemistry/Lab (3, 2) (MPF IVB, LAB)
CHM 142, 145 College Chemistry/Lab (3, 2) (MPF IVB, LAB)
CHM 231 Fundamentals of Organic Chemistry (4)
CHM 363, 364 Analytical Chemistry/Lab (3, 2)
PHY 181, 183 The Physical World/Lab (4, 1)
PHY 182, 184 The Physical World/Lab (4, 1)
Miami Plan Biological Science elective (3) (MPF IVA)

Mathematics and Statistics (16 hours)
MTH 151 Calculus I (5)
MTH 245 Differential Equations for Engineers (3)
MTH 251 Calculus II (4)
STA 368 Introduction to Statistics (4)

Required Engineering Courses (4 hours)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)

Chemical and Paper Engineering Courses (54 hours)
PCE 201 Principles of Paper Science and Engineering (3)
PCE 202 Pulp and Paper Physics (3)
PCE 204 Material and Energy Balances (3)
PCE 219 Statics and Mechanics of Materials (3) **or**
MME 211 Static Modeling of Mechanical Systems (3)
PCE 301 Pulp and Paper Chemistry (3)
PCE 311 Unit Operations Laboratory I (2)
PCE 313 Fluid Mechanics (3)
PCE 314 Engineering Thermodynamics (3)
PCE 341 Engineering Economics (3)
PCE 403 Heat Transfer (3)
PCE 404 Papermaking (3)
PCE 405 Industrial Environmental Control (3)
PCE 414 Mass Transfer (3)
PCE 415 Chemical Kinetics and Reactor Design (3)
PCE 451 Unit Operations Laboratory II (2)
PCE 471 Engineering Design I (2) (MPC)
PCE 472 Engineering Design II (2) (MPC)
PCE 482 Process Control (3)
PCE 490 Special Topics in Paper and Chemical Engineering (4)

Grade Requirements

You must earn a grade of C or better in the following courses: CHM 142 and PHY 181.

You must earn a grade of C or better in the following basic engineering courses: PCE 204.

Credit/No-Credit Policy

All engineering, chemistry, physics, mathematics, statistics, computer science and software engineering, and English listed above as requirements for the B.S. in Paper Science and Engineering may not be taken on a credit/no-credit basis. All other Miami Plan courses may be taken credit/no credit.

Transfer Credit Policy

To obtain transfer credit for any 300- or 400-level PCE course, you must first receive written departmental approval before enrolling in that course at another college or university. Transfer credit may be obtained for only one engineering course in the series PCE 204, 313, 403, and 414. Contact the department if transferring into this program.

Graduate Degree

The department also offers a Master of Science degree. Graduates with majors in chemical engineering, chemistry, microbiology, zoology, physics, or paper science and engineering find their background adaptable to this program. Graduates with majors in other sciences may be required to take additional course work. Additional information may be found in the section of the *Bulletin*.

Software Engineering- Bachelor of Science in Software Engineering

For information, contact the Department of Computer Science and Software Engineering, 205 Benton Hall (513-529-0340) or visit *http://cse.muohio.edu*.

The software engineering major provides graduates with the foundational knowledge and practical skills necessary to develop large, complex computer software systems. The program focuses on the methodologies, techniques and tools needed to develop complex software in a multidisciplinary environment. Topics of study go beyond traditional computer science and include software design, software maintenance, and formal methods for software development. Throughout the program, students are expected to learn in a team environment and thus gain skills in effective communication. In addition to interest in analytical skills, problem solving, and an aptitude for working with technology, students are expected to develop an appreciation for teamwork.

Program Outcomes

Upon graduation, software engineering majors should be able to:

- Demonstrate an understanding of the key facts, concepts, principles, and theories of software engineering.
- Analyze real problems, and select and apply appropriate techniques from computing, mathematics and engineering to solve them.
- Demonstrate an ability to use software development tools.
- Model, design, build, and evaluate software systems of varying complexity based on client requirements, and subject to realistic constraints.
- Design experiments and think critically in evaluating the design choices made and tradeoffs considered when developing software-based systems.
- Work effectively as a member or leader in a multidisciplinary team.
- Describe the need for and an ability to engage in continuing professional development.
- Communicate technical information effectively, both orally and in writing.
- Recognize the social, professional, cultural, and ethical issues involved in the use of computer technology and give them due consideration in decision making.

For more information, visit our website at *http://cse.muohio.edu*.

Departmental Honors

If you excel in your studies, you may qualify for the University Honors Program or the program for Honors in Computer Science and Software Engineering. As a senior in these programs, you will have the opportunity to work closely with the faculty on research projects of interest.

Credit/No-Credit Policy

All required software engineering courses and prerequisite mathematics and statistics courses must be taken for a grade.

Program Requirements: Software Engineering

(128 semester hours minimum)

English (9 hours)
Miami Plan English Composition electives (6) (MPF I)
ENG 313 Technical Writing (3)

Fine Arts, Humanities & Social Science (9 hours)
Miami Plan Fine Arts elective (3) (MPF IIA)
COM 135 Introduction to Public Expression and Critical Inquiry (3) (MPF IIB)*
ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**
ECO 202 Principles of Macroeconomics (3) (MPF IIC)

*COM 231 can be substituted for COM 135, but COM 231 does not fulfill the Miami Plan humanities requirement.

Global Perspectives (6-9 hours)
6 hours of credit on any Miami-approved study abroad program **or**

9 hours of "G" courses specifically designed to have a global perspective **or**

9 hours in a G-cluster, 3 courses that focus on a global issue or theme

Natural Science (12-13 hours)

Choose one of these sequences:
BOT/MBI/ZOO 115, 116 (8) (MPF IVA) and a Natural Science (4) (MPF IBV)
CHM 141,144 and 142, 145 College Chemistry and Lab (10, 5 of which are (MPF IBV, LAB) and a Biological Science (4) (MPF IVA)

PHY 181,183 and 182, 184 The Physical World and Lab (10) (MPF IVB, LAB) and a Biological Science (3) (MPF IVA)

Mathematics/Statistics/Computer Science (16 hours)
MTH 151 Calculus I (5) (MPF V)
MTH 231 Elements of Discrete Mathematics (3)
MTH 251 Calculus II (4)
STA 301 Applied Statistics (3)
STA 401 Probability (3)

Engineering: Take all three (7 hours)
EAS 101 Computing, Engineering and Society (1)
EAS 102 Problem Solving and Design (3)
EGM 311 Project Management (3)

Core requirements (40 hours)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 201 Introduction to Software Engineering (3)
CSE 211 Software Construction (3)
CSE 212 Software Engineering for Human Computer Interaction (3)
CSE/CIT 262 Technology, Ethics, and Global Society (3)
CSE 271 Object-Oriented Programming (3)
CSE 274 Data Abstraction and Data Structures (3)
CSE 278 Computer Architecture (3)
CSE 311 Software Architecture and Design (3)
CSE 321 Software Quality Assurance and Testing (3)
CSE 322 Software Requirements (3)
CSE 385 Database Systems (3)
CSE 448 Senior Design Project I (2) (MPC)
CSE 449 Senior Design Project II (2) (MPC)

Select one: (3 hours)
CSE 283 Data Communications and Networks (3)
CSE 381 Operating Systems (3)

Select Area: (12 hours)
See the department for a list of specialization areas or consult with your faculty advisor to define a custom specialization area.

Free Electives: (0-9 hours)

Minors

A minor is a specific program to be taken along with a major to complement your skills and to increase your career opportunities. Taking a minor is optional. More information about minors is included in the Other Requirements section. The required semester hours are in parentheses with each minor.

Chemical Engineering

(20 semester hours)

For information, contact the Department of Chemical and Paper Engineering, 64 Engineering Building (513-529-0760).

The objective of this program is to expand the educational opportunities of Miami students into the traditional discipline of chemical engineering. The minor provides an understanding of basic chemical engineering principles, concepts, and methodologies and how they are applied to the design and performance analysis of industrial processes. This minor is for students not majoring in Paper Science and Engineering or Chemical Engineering.

A minimum cumulative g.p.a. of 2.00 is required for all courses in the minor. Twenty semester hours beyond the prerequisite chemistry, physics, and mathematics are required. None of these courses may be taken on a credit/no credit basis.

The minor satisfies Thematic Sequence PCE 1: Chemical Engineering Principles.

Program Requirements

Prerequisites:
CHM 142, 145 College Chemistry/Laboratory (3, 2) (MPT)
MTH 245 Differential Equations for Engineers (3) **or**
MTH 347 Differential Equations (3)
PCE 219 Statics and Mechanics of Materials (3) **or**

MME 211 Static Modeling of Mechanical Systems (3)
PCE/MME 341 Engineering Economics (3)
PHY 181 The Physical World (4) (MPT)

All of these:
CHM 363 Analytical Chemistry (3)
CHM 364 Analytical Chemistry Laboratory (2)
PCE 204 Material and Energy Balances (3)
PCE/MME 313 Fluid Mechanics (3)
PCE/MME 314 Engineering Thermodynamics (3)
PCE/MME 403 Heat Transfer (3)
PCE 414 Mass Transfer (3)

Computer Engineering

(20-22 semester hours)

For information, contact the Department of Electrical and Computer Engineering, 260 Engineering Building (513-529-0741).

The objective of this minor is to provide the student with a broad introduction to computer engineering with an emphasis on computer-based solutions to engineering problems. The minor combines a strong base in science, math, computer science, engineering science, and design. After completing this minor, students will be able to design and build computer-based digital electronic systems.

A minimum cumulative g.p.a. of 2.00 is required for all courses in the minor. A minimum of 20 semester hours beyond the prerequisite courses in math and physics are required. None of these courses may be taken on a credit/no credit basis.

Program Requirements

Prerequisites (16 hours):
CSE 271 Object-Oriented Programming (3)
MTH 245 Differential Equations for Engineers (3) or equivalent
PHY 181,182 The Physical World (4, 4) (MPF IVB)
PHY 183,184 Physics Laboratory (1, 1) (MPF IVB, LAB)

All of these (14-16 hours)
CSE/ECE 278 Computer Architecture (3)
ECE 287 Digital Systems Design (4)
ECE 205 Electric Circuit Analysis (3) **or**
PHY 292, 294 Electronic Instrumentation and Laboratory (3, 2)
ECE 387 Embedded Systems Design (4)

Elective Courses (6 hours)
Any two of these:*
CSE 381 Operating Systems (3)
ECE 304 Electronics (3)
ECE 305 Electric Circuit Analysis II (3)
ECE 414 Introduction to VLSI and System Design (3)
ECE 436 Control of Dynamic Systems (3)
ECE 461 Network Modeling and Performance Analysis (3)
ECE 470 Special Topics (3)

*MME, PHY, and CSE majors must select both elective courses outside of their home department.

Computational Science and Engineering

(18 semester hours)

For information, contact the Department of Computer Science and Software Engineering, 205 Benton Hall (513-529-0340).

This minor is an integrated collection of courses whose goal is to provide students with knowledge and skills in using computation to solve engineering and scientific problems. The use of computation as a problem solving method is not ubiquitous in these fields.

According to University guidelines, all minor courses must be taken for a letter grade and you must earn an overall 2.00 g.p.a. in these courses.

Program Requirements

One year of calculus (9 hours):
MTH 151 Calculus I (5) **or**
MTH 153 Calculus I (4) (MPF V)
MTH 251 Calculus II (4) **or**
MTH 249 Calculus II/Honors Calculus II (5)

Take one course from each of the five areas (15 hours):

Introduction to Simulation and Modeling:
CSE 241 Computational Modeling and Simulation (3)

Programming and Algorithms (select one):
CSE 153 Introduction to C/C++ Programming (3)
CSE 174 Fundamentals of Programming and Problem Solving (3)

Numerical Methods:
MTH 453 Numerical Analysis (3)

Optimization:
CSE 273 Optimization Modeling (3)

Discipline-oriented computational science courses (3 hours):
CSE/MBI/BOT/ZOO 466 Bioinformatics Computing Skills (3)
ECE 345 Random Signal Processing (3)
ECE 425 Digital Signal Processing (3)
MME 213 Computational Methods in Engineering (3)
MME 495 Introduction to Applied Nonlinear Dynamics (3)
PCE 473 Chemical Process Design (3)
PHY 286 Introduction to Computational Physics (3)

Electives (select one):

Parallel Programming:
CSE443 High Performance Computing (3)

Differential Equations and Discrete Dynamical Systems:
MTH 245 Differential Equations for Engineers (3)

Research or Internship

Note: Must be pre-approved by the Director of the Miami RRSCS program. Options include: Approved internship or research project utilizing computational methods, a SEAS or other Miami capstone course utilizing computational methods or a Miami undergraduate research course utilizing computational methods.

Computer Science

(18 semester hours)

For information, contact the Department of Computer Science and Software Engineering, 205 Benton Hall (513-529-0340).

This minor is for students in majors other than computer science or software engineering. The objective is to provide a cohesive program enabling students to learn the fundamentals of software design and development and a variety of other topics in computer science. In addition to gaining an understanding of the software design and development process, students will acquire problem solving and algorithm design skills. Electives in sub-fields of computer science including computer networks, operating systems, database, software engineering, graphics, and computer architecture permit the student to study particular areas of interestAccording to University guidelines, all minor courses must be taken for a letter grade and you must earn an overall 2.00 g.p.a. in these courses.

Program Requirements

Required courses (6 hours):
CSE 174 Fundamentals of Programming and Problem Solving (3) (MPT)
CSE 271 Object-Oriented Programming (3) (MPT)

One of these courses (3 hours):
CSE 274 Data Abstraction and Data Structures (3) (MPT)
CSE 283 Data Communications and Networks (3)
CSE/ECE 278 Computer Architecture (3)

Electives (minimum 9 hours):
Choose nine additional hours of coursework selected from CSE courses at 200-level or higher. Consult with the department, 205 Benton Hall, for the current list of courses.

Electrical Engineering

(19-22 semester hours)

For information, contact the Department of Electrical and Computer Engineering, 260 Engineering Building (513-529-0741).

This minor is for students not majoring in computer or electrical engineering. This minor provides fundamentals of electrical and electronic engineering, which includes a variety of industrial applications involving electrical/electronic circuits and microprocessor systems. It combines a strong base in engineering science with project-based laboratory and design experience.

A minimum cumulative g.p.a. of 2.00 is required for all courses in the minor. Nineteen semester hours beyond the prerequisite to engineering science are required. None of these courses may be taken on a credit/no-credit basis.

Program Requirements

Prerequisites (13 hours)
MTH 245 Differential Equations for Engineers (3)
PHY 181,182 The Physical World (4, 4) (MPF IVB)
PHY 183,184 Physics Laboratory (1, 1) (MPF IVB LAB)

Required courses (10-13 hours)
ECE 205 Electric Circuit Analysis (3) **or**
PHY 292 Electronics Instrumentation (3) **and**
PHY 294 Laboratory in Electronics Instrumentation (2)
ECE 287 Digital Systems Design (4)
ECE 305 Electric Circuit Analysis II (3) or
MME 303 Computer-Aided Experimentation (4)

Elective courses (9-10 hours)
Select from:
ECE 304 Electronics (3)
ECE 306 Signals and Systems (3)
ECE 325 Applied Electromagnetics (3)
ECE 345 Random Signal Processing (3)
ECE 387 Embedded Systems Design (4)
ECE 425 Digital Signal Processing (3)
ECE/MME 436 Control of Dynamic Systems (3)
ECE 453 Communication Systems (3)
ECE 461 Network Modeling and Performance Analysis (3)
ECE 470 Special Topics (3)

Manufacturing Engineering

(18 semester hours)

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Engineering Building (513-529-0710).

This minor is for students not majoring in engineering management, manufacturing engineering, or mechanical engineering. This minor provides fundamentals of manufacturing engineering, including a variety of industrial applications dealing with manufacturing processes, statistical process control, and designing for productivity. It combines a strong base in engineering science with project-based laboratory and design experience. This minor satisfies Thematic Sequence MME 2 Modeling, Computer Graphics, and Design.

A minimum cumulative g.p.a. of 2.00 is required for all courses in the minor. Eighteen semester hours beyond the prerequisite to engineering science are required. None of these courses may be taken on a credit/no-credit basis.

Program Requirements

Prerequisites:
CHM 141 College Chemistry (3)
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)
MTH 251 Calculus II (4)
PHY 181 The Physical World (4)
STA 368 Introduction to Statistics (4) or equivalent.

All of these (18 semester hours):
MME 211 Static Modeling of Mechanical Systems (3)
MME 213 Computational Methods in Engineering (3)
MME 223 Engineering Materials (3)
MME 231 Manufacturing Processes (3)
MME 311 Dynamic Modeling of Mechanical Systems (3)
MME 334 Quality Planning and Control (3)

Mechanical Engineering

(18 semester hours)

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Engineering Building (513-529-0710).

This minor is for students not majoring in manufacturing engineering or mechanical engineering. This minor provides fundamentals of mechanical engineering, including a variety of industrial applications involving product design, experimental analysis, and engineering modeling techniques. It combines a strong base in engineering science with project-based laboratory and design experience.

A minimum cumulative g.p.a. of 2.00 is required for all courses in the minor. Eighteen semester hours beyond the prerequisite to engineering science are required. None of these courses may be taken on credit/no-credit basis.

Program Requirements

Prerequisites:
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)
MTH 251 Calculus II (4)
PHY 181,182 The Physical World (4, 4)

All of these:
MME 211 Static Modeling of Mechanical Systems (3)
MME 213 Computational Methods in Engineering (3)
MME 311 Dynamic Modeling of Mechanical Systems (3)
MME 312 Mechanics of Materials (3)
MME/PCE 313 Fluid Mechanics (3)
MME/PCE 314 Engineering Thermodynamics (3)

Paper Engineering

(21 semester hours)

For information, contact the Department of Chemical and Paper Engineering, 64 Engineering Building (513-529-0760).

The minor introduces the science and engineering of papermaking. The educational experience will prepare the student for a career as a project/process engineer in the paper and allied industries.

A minimum cumulative g.p.a. of 2.00 is required for all courses in the minor. Twenty semester hours beyond the prerequisite chemistry, physics, and mathematics are required. None of these courses may be taken on a credit/no credit basis.

Program Requirements

Prerequisites (19 hours):
EAS 101 Computing, Engineering, and Society (1)
EAS 102 Problem Solving and Design (3)
ECO 201 Principles of Microeconomics (3) (MPF IIC)
MTH 251 Calculus II (4)
PHY 181 The Physical World (4) (MPF IVB)
STA 368 Introduction to Statistics (4)

Required Courses (21 hours):
PCE 201 Principles of Paper Science and Engineering (3)
PCE 202 Pulp and Paper Physics (3)
PCE 219 Statics and Mechanics of Materials (3) **or**
MME 211 Static Modeling of Mechanical Systems (3)
PCE/MME 313 Fluid Mechanics (3)
PCE/MME 341 Engineering Economics (3)
PCE 404 Papermaking (3)
PCE 471, 472 Engineering Design I & II (1, 2)

Strongly Recommended:
PCE 320 Professional Practice (0)

The School of Fine Arts

Office of the Dean
104 Center for Performing Arts
Phone: 513-529-6010
www.fna.muohio.edu

Degrees and Majors Offered

Bachelor of Arts in Architecture

Bachelor of Arts in the History of Art and Architecture

Bachelor of Arts in Music

Bachelor of Arts in Theatre

Bachelor of Fine Arts in:
- Art
- Graphic Design
- Interior Design

Bachelor of Music in:
- Music Education
- Music Performance

Bachelor of Science in Art in:
- **Art Education**

Certificate in Design Thinking

General Information

The School of Fine Arts offers students opportunity to develop artistic competence, to prepare for a variety of careers in the arts, and to gain a broad cultural and academic background. Programs in the School lead to the following bachelor's degrees: Bachelor of Arts in Architecture, Bachelor of Arts in History of Art and Architecture, Bachelor of Arts in Music, Bachelor of Arts in Theatre, Bachelor of Fine Arts, Bachelor of Music, and Bachelor of Science in Art. Graduate degrees offered by the School are described in the section for the Graduate School.

Accreditation

The Department of Architecture and Interior Design is accredited by the National Architectural Accrediting Board and the Council for Interior Design Accreditation (formerly FIDER). The Department of Art is accredited by the National Association of Schools of Art and Design and the Ohio Department of Education. The Department of Music is an accredited institutional member of the National Association of Schools of Music and the Ohio Department of Education, and both departments of Art and Music are accredited by the National Council of Accreditation for Teacher Education. The Department of Theatre is accredited by the National Association of Schools of Theatre.

The Department of Theatre holds membership in the Association for Theatre in Higher Education, Black Theatre Network, and the United States Institute for Theatre Technology. The Department of Architecture and Interior Design holds membership in the Association of Collegiate Schools of Architecture and the Interior Design Educators Council. The Department of Art holds membership in the College Art Association.

Special Admission Requirements

In addition to the requirements for admission to the University, there are additional requirements that must be fulfilled in order to declare a major in the School of Fine Arts. Specific requirements are described in the sections on architecture and interior design, art, and music. They do not apply to students in other divisions who wish to register for individual courses.

Admission into a specific program within the School of Fine Arts is considered at departmental level and is based on: (1) scholastic achievement; (2) creative ability and/or achievement as determined by audition or portfolio review; (3) motivation to study in a specific fine arts area expressed in a written statement or interview; (4) recommendation from high school music/theatre teacher or studio instructor; (5) space availability.

All degree programs in the School of Fine Arts with the exception of History of Art and Architecture require either a portfolio review or audition. These reviews are conducted prior to admission. Please contact the appropriate department for specific guidelines.

Students in other divisions who wish to participate in ensembles, productions, and certain activities are also subject to review and/or audition. Time and format of these proceedings are determined by the sponsoring department and are not part of the general admission process.

Course Load

Students in the School of Fine Arts may not register for more than 20 hours in a semester without approval of the dean.

Miami Plan

It is important that you consult with your academic adviser to be sure that you select courses that also meet requirements for your major.

Requirements for Graduation

Candidates for degrees must comply with all university academic regulations and must complete one of the curricula outlined. A minimum of 128 semester hours is required for graduation by all departments in the School of Fine Arts. Miami Plan courses are included in this total.

Please note, in some programs of study it may take longer than four years to complete the professional requirements for your bachelor's degree.

No-Major Option

If you are interested in architecture, art, interior design, or graphic design, but are undecided about making a commitment to these fields, you can choose one of the no-major programs. **Before choosing this option, however, you must talk with a School of Fine Arts adviser and a chief departmental adviser.** Students who choose this option must fulfill departmental admission requirements before being admitted as a major. **In many programs of study, it will take longer than four years to complete the professional requirements for your bachelor's degree.**

The following one-year programs allow you to choose a broad range of electives and sample fine arts courses on a space-available basis:

Architecture and Interior Design: No-major option (32 semester hours)
ART 111, 171 Visual Fundamentals (3, 3)
ART 121, 122 Drawing I, II (3, 3)
ENG 111, 112 College Composition, Composition and Literature (3, 3) (MPF I)
Miami Plan Foundation II, III, IV, V courses (14)

Art: No-major option (32 semester hours)
ART 111, 171 Visual Fundamentals (3, 3)

ART 121, 122 Drawing I, II (3, 3)
ENG 111, 112 College Composition, Composition and Literature (3, 3) (MPF I)
Miami Plan Foundation II, III, IV, V courses (14)

The following options do not require a student to declare the no-major option in the School of Fine Arts, but are suggested plans of study for those students who are considering a Music or Theatre major.

Music: No-major option (32 semester hours)
ENG 111, 112 College Composition, Composition and Literature (MPF I) (3, 3)
MUS 185 Diverse Worlds of Music (3) (MPF IIA or IIIB)
MUS 189 Great Ideas in Western Music (3) (MPF IIA, H)
Applied Music (audition required; see course descriptions) (2, 2)
Miami Plan Foundation III, IV, V courses (16)

Theatre: No-major option (32 semester hours)
ENG 111, 112 College Composition, Composition and Literature (3, 3) (MPF I)
THE 101 Introduction to Theatre: Drama and Analysis (3)*
THE 102 Analysis: Methods and Research (3)
THE 103 Introduction to Theatre: Production and Performance I (1) (MPF IIA)
Miami Plan Foundation II, III, IV, V courses (18)

Department of Architecture and Interior Design

Architecture and Interior Design

Architecture: Bachelor of Arts in Architecture

For information, contact the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

This preprofessional degree prepares you to enter a professional graduate program to become a registered/licensed architect or to enter an architectural field at a preprofessional level. Miami offers a graduate program, which leads to the professional degree Master of Architecture.

Freshman and sophomore courses introduce the basics of architecture and the range of opportunities available in the field. Junior and senior courses focus on advanced architectural design, landscape, and urban design. Throughout the program, you are exposed to the interdisciplinary nature of architecture.

Interior Design: Bachelor of Fine Arts

For information, contact the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

This is a professional degree program leading to the Bachelor of Fine Arts degree. Graduates are prepared to enter the interior design field or to enter a graduate program in interior design, architecture, or a related discipline.

The curriculum promotes competency in fundamental design, design process, and visual communication, and an understanding of interior materials and systems, history and theory, and professional procedures. Graduates integrate the various aesthetic, social, technical, and graphic requirements of interior design problems.

The program balances liberal learning with a comprehensive professional education. It emphasizes interdisciplinary learning (reflective of the discipline and of trends in practice) by requiring several courses outside the major and by emphasizing interdisciplinary courses and projects. The program promotes independent, self-directed course work and research, with the intention of developing in the student a specialized knowledge as a complement to a broad-based, generalized understanding of the discipline.

Architecture and Interior Design: Special Admission Requirements

Admission is possible only in the fall semester. The applicant must meet all curricular requirements mandated by the university for entering students. Courses in studio art or other creative areas (music, drama, creative writing) are strongly encouraged because they help the student develop creative potential as well as critical judgment.

Evidence of creative aptitude must be submitted in the form of a portfolio, due by the same deadline date as other admission materials. Contact the department for submission guidelines. A departmental visit is highly recommended. The departmental admission committee will evaluate your scholastic achievements and general academic profile in addition to the evidence of creativity revealed in the portfolio submission. Please contact the Department of Architecture and Interior Design for further information about portfolio submission or review requirements at *www.muohio.edu/architecture*.

To transfer, you must meet the above criteria (including portfolio submission) and should have a minimum 3.00 cumulative g.p.a. Advanced standing for accepted transfer students is dependent on the strength of the student's academic profile, the portfolio, and available space. Transfers after the second year are generally restricted to students coming from other undergraduate professional or preprofessional architecture and interior design programs.

National Architectural Accrediting Board (NAAB) Statement

The following statement is required by the NAAB.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

The Department of Architecture and Interior Design at Miami University offers the following NAAB-accredited degree programs:

Master of Architecture I (first-professional Bachelor of Architecture degree + 36 graduate credits)

Master of Architecture II (pre-professional degree + 62 graduate credits)

Master of Architecture III (non-pre-professional degree + 110 graduate credits)

Next accreditation visit for all programs: 2015.

Special Curriculum Requirements

Change of Major Within Department

During the spring semester of the first year majors in architecture or interior design may apply to the alternate major. Internal applicants will be given first priority as available spots are filled.

Advancing to Upper-class Standing

Your work is reviewed at the close of your first, second, and third years. Regardless of grades in individual courses, the faculty may deny a student further registration as a major in the department if they conclude this is in the student's best interest. In this event, it may be possible for a student to apply for transfer to another academic division and, subject to regulations of that division, continue to register for certain courses in architecture on an elective basis.

Departmental Honors

You are eligible to graduate with departmental honors if you meet the following conditions.

2. Cumulative g.p.a. of 3.50 or better.
3. Significant contribution to one or more of the following:
   - Enhancement to department life. This may include assisting in lower division courses as an undergraduate associate, serving as an officer in a student organization such as AIAS, IIDA, or SAC, or working on student-initiated departmental activities.
   - Advanced research effort. This may include helping faculty with research projects or undertaking an independent research project (e.g., Undergraduate Summer Scholar program).
   - Socially responsive volunteering. This may include assisting organizations such as Habitat for Humanity or the Over-the-Rhine Community Housing, preferably in an architectural capacity, or collaborating with faculty in similar efforts beyond minimum classroom requirements.

Admission to Graduate Program

If you intend to continue into the Master of Architecture program, three of your four junior and senior design studios must focus on building design. Many other advanced courses and seminars are available that may be taken for either graduate or undergraduate credit. See the Courses of Instruction section in this Bulletin for the Master of Architecture degree.

Program Requirements: Architecture

(128 semester hours minimum)

Freshman year
ARC 101, 102 Architectural Design Studio (5, 5)
ARC 113, 114 Graphic Media I & II (2, 2)
ENG 111, 112 College Composition/Composition and Literature (3, 3)*
Miami Plan Foundation course electives (6,6)

Sophomore year
ARC 201, 202 Architectural Design Studio (5, 5)
ARC 211, 212 Principles of Environmental Systems (3, 3)*
ARC 213, 214 Graphic Media III & IV (2, 2)
ARC 221, 222 History and Philosophy of Environmental Design (3, 3)*
Miami Plan Foundation course electives (3)
Miami Plan Thematic Sequence (3)

Junior year
ARC 301, 302 Architectural Design Studio (6, 6)
Required ARC electives (11)
Miami Plan Foundation course electives (3)
Miami Plan Thematic Sequence (6)

Senior year
ARC 401, 402 Architectural Design Studio (6, 6)
Required ARC electives (12)
Miami Plan Foundation course electives (3)
General electives (5)

* Miami Plan Foundation course

Notes: A pre-approved 6 credit hour summer studio may be substituted for a maximum of one upper-division studio (ARC 301, 302, 401, or 402). ARC 402C is offered as a Miami Plan Capstone.

Required ARC electives must be met by a minimum of:
- 9 credit hours of history/theory
- 12 credit hours environmental systems (see adviser for M.Arch prerequisites)
- 2 credit hours communication process.

Program Requirements: Interior Design

(128 semester hours minimum)

Freshman year
ARC 101,102 Environmental Design Studio (5, 5)
ARC 113,114 Graphic Media I & II (2, 2)
ENG 111,112 College Composition/Composition and Literature (3,3)*
Miami Plan Foundation Course electives (12)

Sophomore year
ARC 203-204 Interior Design Studio (5, 5)
ARC 212 Principles of Environmental Systems (3)*
ARC 213, 214 Graphic Media III & IV (2, 2)
ARC 221*,222* History and Philosophy of Environmental Design (3, 3)
ARC 225 Design and Human Behavior (3)
Miami Plan Foundation course elective (3)
Miami Plan Thematic Sequence (3)

Junior year
ARC 303 **or** 304 Interior Design Studio (6, 6)
ARC 309 Furniture Design and Construction (3)
ARC 321 History of Interiors (3)
ARC 414 Environmental Systems (3)
ARC 417 Architectural Materials (3)
ARC 419 Interior Materials (3)
Elective studio (3)
Miami Plan Foundation course elective (3)
Business elective (3)
Miami Plan Thematic Sequence (6)

Senior year
ARC 403, 408 Interior Design Studio (6, 6)
ARC 444 Professional Practice in Interior Design (3)
ARC 477 Independent Study (3)
Miami Plan Foundation course elective (3)
General electives (7)
* Miami Plan Foundation course

Notes:
ARC 303 or 304 is required. Elective studio in an alternate semester must be taken outside the major or through off-campus study. ARC 408 is offered as a Miami Plan Capstone.

History of Art and Architecture- Bachelor of Arts in the History of Art and Architecture

This is an interdepartmental major coordinated by the departments of Architecture and Interior Design, Art and Classics. For information, contact the Department of Art, 124 Art Bldg. (513-529-2900) or the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

This major provides an introduction to the history of visual culture and aesthetics in all parts of the world. It provides majors with solid training in those perceptual, historical, research, and critical skills fundamental to a liberal arts education. This program prepares the student for careers in communications and publishing at museums, galleries, and historical societies in corporations and education; and in all areas of the visual arts, including arts management and administration. An arts related internship or study abroad is required.

Department of Art

The Department of Art offers these degrees: Bachelor of Arts in History of Art and Architecture; Bachelor of Fine Arts, emphasizing studio art; Bachelor of Fine Arts in Graphic Design and Bachelor of Science in Art with Multi-Age Visual Arts Licensure Program (prekindergarten through grade 12; ages 3-21) for those preparing to teach in public schools. You can receive a B.F.A. and a B.S. degree at the same time; this may take additional time beyond the 128 semester hours required for a degree.

These art programs prepare producing and exhibiting artists, designers, artists-crafts persons, art and architectural historians, professionals in related fields, and art teachers for careers in art and related art fields. Course offerings include basic studio areas, art education, history of art, and advanced studio disciplines.

The department also offers graduate programs leading to Master of Fine Arts and Master of Arts degrees. More information on these programs is available in the Graduate Fields of Study section or from the Graduate School.

Admission Requirements: B.F.A. in Graphic Design, B.F.A. in Studio Art, and B.S. in Art in Art Education

The admission process for the B.F.A. (studio, graphic design) and B.S. (art education) programs within the Department of Art includes submission of a portfolio of digital images of recent work for review by the art faculty. The purpose of the review is to assess artistic potential, to approve admission to the department, and to award departmental scholarships. Please understand that an impressive portfolio is a goal to be achieved during study, *not* a prerequisite for entrance. Your portfolio should consist of 12 to 15 digital images of recent work. For additional information about the graphic design program, please see the program description in this Bulletin. Please see the Department of Art website or contact the Department of Art for the detailed requirements and format of a portfolio review.

Transfer Admission Requirements

Bachelor of Fine Arts

Students enrolled at Hamilton, Middletown, or Oxford campus who wish to be admitted to the department must undergo a portfolio review. Portfolios should include 15 examples of your university art work and a current grade transcript. Portfolios may be submitted only after you have successfully completed a minimum of six credit hours of art studio courses. If only the minimum of six credit hours is completed, you must also enroll in at least six additional hours of art studio at the time your portfolio is submitted. Register for a portfolio review in the departmental office; the department designates a time during each semester to review portfolios and make admission decisions. Students planning on transferring into the Department of Art may not take 300-400 level studio art classes until they have successfully passed the portfolio review.

Students from other universities and colleges who wish to transfer to the department must first be admitted to Miami University and then follow the same admission procedures required of all Miami students who are not art majors. Graphic design students from other institutions are encouraged to contact Miami's graphic design faculty. Transfer credit (comparable art studio courses taken at other universities and colleges) may fulfill part or all of the required prerequisites of art studio courses needed for admission consideration; however, a portfolio of art work is still required for admission consideration.

Students who are denied admission in their initial attempt may apply a second time. Students who are denied in their second attempt are ineligible for further admission consideration.

Bachelor of Science in Art with Multi-Age Visual Arts Licensure

Students who were not initially admitted as art education majors, may seek admission after successfully completing Art 195 and either ART 295 or 296, which may be taken concurrently. In addition, a student must have completed at least six hours of studio work and be enrolled in at least six additional hours of studio classes. An art education review, which involves a portfolio of art work, a statement of intent and commitment to the profession, a resume emphasizing work experience related to children/adolescents, and a minimum g.p.a. of 2.50, is required. Art education reviews occur every semester, usually at the end of the fourth week. The Art Education Retention Policy, as outlined in departmental literature, requires majors to demonstrate success in progressing toward the degree and licensure, including professional dispositions. Due to enrollment constraints, a limited number of transfer students are accepted each year.

Art Education- Bachelor of Science in Art with Multi-Age Visual Arts Licensure

This program prepares the student for licensure as an art teacher in Ohio Public Schools. It leads to the Bachelor of Science in Art with Multi-Age Visual Arts License (Prekindergarten through grade 12, ages 3-21). Accredited by the National Association of Schools of Art and Design (NASAD), NCATE, and the State of Ohio Department of Education Teacher Licensure Standards, it is in compliance with guidelines from Ohio's Academic Content Standards K-12 Fine Arts and the National Art Education Association.

A student must plan a program with an art education adviser in the Department of Art and demonstrate progress toward candidacy for licensure by successfully completing key assessments and indicators and achieving benchmarks to pass programmatic reviews.

Program Requirements

(128 semester hours)

All of these:

ART 111 Visual Fundamentals (3)
ART 121, 122 Drawing I, Drawing II (3, 3)
ART 171 Visual Fundamentals 3-D (3)
ART 195 The Profession of Art Education (3)
ART 231 Painting I (3)
ART 241 Printmaking I (3)
ART 261 Ceramics I (3)
ART 264 Jewelry Design and Metals I (3)
ART 271 Sculpture (3)
ART 295 Early Childhood Art Education (3)
ART 296 Middle to Adult Art Education (3)
ART 331 Painting II (3)
ART 395 The Art Teacher (3)
ART 419 Supervised Student Teaching in Art (16) (MPC)
ART 493/593 Art Curriculum in the School (3)
ART 495/595 Art Education Practicum (3)
EDL 204 Sociocultural Studies in Education (3)*
EDL 318 Educational Leadership (3)
EDP 201 Human Development and Learning in Social and Educational Contexts (3)
EDP 256 Psychology of the Exceptional Learner (3)
EDP 301 Assessment and Evaluation in Educational Settings (3)

Both of these:

ART 187 History of Western Art: Prehistoric to Gothic (3) ** *
ART 188 History of Western Art: Renaissance to Modern (3) ** *

Upper level art history. One course recommended from these: **

ART 311 Chinese Painting History (3)
ART 312 Japanese Painting and Prints (3)
ART 480 Seminar in Art History (3)
ART 487 Art of the Early 20th Century (3)
ART 488 American Art (3)
ART 489 Contemporary Art (3)

Studio discipline. One of these:

ART 221 Drawing III (3)
ART 257 Photography (3)
ART 332 Painting III (3)
ART 341 Printmaking II (3)
ART 353 Business of Design (3)
ART 361 Ceramics II (3)
ART 364 Jewelry Design and Metals II (3)

* Miami Plan Foundation course
** See adviser for additional courses.

Graphic Design- Bachelor of Fine Arts

For information, contact the Department of Art, 124 Art Building (513-529-2900).

This program includes 36 semester hours of studio requirements plus art and design history requirements in the first and second years, including five courses specific to graphic design. Upper-class majors must earn 34 hours in specific graphic design course work with 20 during the third year and 14 during the fourth year. Students must choose a Design Focus Track of 12

hours in one of the following areas: art and architectural history, business, communication, cultural studies, environmental design, interactive design, perception and cognition, studio art and technical communication. Majors must also take three additional hours in the history of art with a non-western focus and complete at least one summer internship.

Portfolio Review

In addition to the entrance portfolio review required by the Department of Art, students desiring to pursue the graphic design major must undergo an additional portfolio review. It occurs near the end of the second semester of the first year. This portfolio and interview process determines advancement into the degree program in the second year. A limited number of students are admitted each year. The portfolio review conducted by the graphic design program counts as an art department review (see Department of Art: Transfer Admission Requirements). Transfer students not admitted to graphic design may be accepted as art majors in the B.F.A. Studio Art Program as a result of this review.

Transfer Admission

Students who wish to transfer from another institution and enter this program must satisfy admission requirements of the graphic design program in addition to those of the art department and university. For information, contact the art department office (513-529-2900).

Program Requirements

(128 semester hours minimum)

First year
ART 111 Visual Fundamentals 2-D (3) **
ART 121,122 Drawing I, II (3,3) **
ART 151 Introduction to Design (1) **
ART 171 Visual Fundamentals 3-D (3) **
ART 187 History of Western Art: Prehistoric-Gothic (3)
ART 188 History of Western Art: Renaissance-Modern (3)
ENG 111, 112 College Composition, Composition and Literature (3, 3) *
Miami Plan Foundation courses (4, 3)

Second year
ART 221 Drawing 3 (3)
ART 222 Drawing 4 (3)
ART 251 Typography (3)
ART 252 Image (3)
ART 254 Kinetic Type (3)
ART 256 Design, Perception and Audience (3) (MPF IIA) *
ART 455 Design History and Cultural Contexts (3)
Miami Plan electives (5, 3)
CFA 111 Innovation, Creativity and Design Thinking (3)

Third year
ART 351 Print Design Systems (3)
ART 352 Identity Systems (3)
ART 353 The Business of Design (3)
ART 354 3-D Design/Interdisciplinary Studio (6)
ART 355 Interactive Design (3)
Summer internship (2)
Design Focus Track, electives (3, 3)
Miami Plan, electives (3, 2)

Fourth year
ART 451 The Professional Portfolio (3)
ART 452 Senior Degree Project (3) ***
ART 453 Highwire Brand Studio (4) ***
IMS 440 Interactive Media Studies Practicum (4)
Non-western art history course (3)
Studio elective (3)
Design Focus Track, electives (3,3)
Miami Plan electives (5,5)

* Miami Plan Foundation course
** Course must be completed or in progress for student to be eligible to participate in graphic design portfolio review in the second semester
*** Capstone

History of Art and Architecture- Bachelor of Arts in the History of Art and Architecture

This is an interdepartmental major coordinated by the Departments of Art, Architecture and Interior Design and Classics. For information, contact the Department of Art, 124 Art Bldg. (513-529-2900) or the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

This major provides an introduction to the history of visual culture and aesthetics in all parts of the world. It provides majors with solid training in those perceptual, historical, research, and critical skills fundamental to a liberal arts education. This program prepares the student for careers in communications and publishing, at museums, galleries, and historical societies, in corporations, education, and in all areas of the visual arts, including arts management and administration. An internship or study abroad is required.

Program Requirements

(48 hours, plus 2 years foreign language)

Level One: Introductory Courses, 9 hours

One of these:
ART 107 Art in a Global Context (3)*
ART 185 India and Southeast Asia (3)*
ART 187 History of Western Art: Prehistoric-Gothic (3)*
ART 188 History of Western Art: Renaissance-Modern (3)*
ART 189 History of Western Dress

And both of the following:
ARC 107 Global Design (3)
ART 285 Writing and Research in Art and Architectural History (3)

Level Two: Themed Courses, 9 hours

Thematic, cross-cultural and cross-disciplinary approaches to the history of art and architecture. Courses at this level include a writing component.
ARC 221,222 History of Environmental Design (3, 3) *
ART 233 Global Perspectives on Dress (3) *
ART 235 The Gods are Here: Spirituality and Text in African Art (3)
ART 279 Buddhism and Culture: China and Japan (3)*
ART 282 Art and Politics (3) *
ART 283 Art in America (3)
ART 286 China, Korea, and Japan (3)
ART 288 Western Art in Context: 1500-2000 (3)
CLS 210A Classical Antiquity through a Lens (3)
CLS 210C Roman Cities (3)
CLS 232 Discoveries in Archaeology (3)
CLS 244 Introduction to Egyptian Art and Archaeology (3)
CLS 332 Classical Mythology and the Arts (3)

Level Three: Area Courses, 15 hours

Courses designed to explore issues of style and how it changes according to function, context and chronology. Courses at this level have an integrated lecture component that will include student research and writing significantly beyond what is expected at the 200 level.

*At least one course must be taken in each of the following areas: **

Art of Asia, Africa, or the Americas
ART 309 The Arts of African Peoples (3)
ART 311 Chinese Painting (3)
ART 312 Japanese Painting and Prints (3)

European Art
ART 313 Early Christian, Byzantine, and Islamic Art (3)
ART 314 The Renaissance in Italy (3)
ART 315 North European Renaissance Art (1350-1600) (3)
ART 316 Baroque Art in Europe (3)
ART 317 The Arts of Colonial Latin America (3)
ART 485 Art of the Early 19th Century (3)
ART 486 Art of the Late 19th Century (3)
ART 487 Art of the Early 20th Century (3)
ARC 405E Renaissance Architecture (3)
ARC 405G Gothic Architecture (3)

Pre-Modern Art (of any geographic area or areas)
ART 381 Greek and Roman Architecture (3)
ART 382 Greek and Roman Sculpture (3)
ART 383 Greek and Roman Painting (3)
ART 311 Chinese Painting (3)

ART 312 Japanese Painting and Prints (3)
ART 313 Early Christian, Byzantine, and Islamic Art (3)
ART 314 The Renaissance in Italy (3)
ART 315 North European Renaissance Art (1350-1600) (3)
ART 316 Baroque Art in Europe (3)
ART 317 The Arts of Colonial Latin America (3)
ART 485/585 Art of the Early 19th Century (3)
ARC 405E Renaissance Architecture (3)
ARC 405G Gothic Architecture (3)

Modern/Postmodern Art
ART 318 Modernism and Modernity (3)
ART 319 Postmodern Art and Theory (3)
ARC 321 History of Interiors (3)
ARC 422/522 History of Urbanization (3)
ARC 426/526 Architecture and Society (3)
ARC 427/527 The American City Since 1940 (3)
ARC 451/551 Modern Architecture (3)
ARC 452/552 Recent Architecture Theory (3)
ART 455/555 Design History and Cultural Contexts (3)
ART 486/586 Art of the Late 19th Century (3)
ART 487/587 Art of the Early 20th Century (3)
ART 489/589 Art of the Late 20th Century (3)

* NOTE: A single course may not fill requirements in more than one area.

Level Four: Seminar, 3 hours

Faculty-mentored seminars in which students are responsible for extensive research on a specified aspect of the course which they will present to the instructor and their classmates.

ARC 405 Seminar
- 405C Typology and Regionalism (3)
- 405F Contemporary Architectural Issues in Europe (3)
- 405Y Frank Lloyd Wright and Modernism (3) MPC

ART 480 Seminar
- 480A Seminar in African Art and Culture (3)
- 480I The Icon as Religious Experience (3)
- 480P History of Photography (3)
- 480S Surrealism and the Interwar Avant-garde, 1914-1945 (3)
- 480W Feminist Art Histories (3)

Internship or Field Study, 3 hours
ART 391 Field Study in Art and Architecture History (3; maximum 6)
Restricted to majors who have completed the sophomore year.

Note: ART 391 is in addition to the 18 hours in 300- and 400-level courses listed above.

Senior Research Methods, 3 hours (in addition to 18 hours above)
ART 498 Capstone: Seminar in History and Methods in Art and Architectural History (3) (MPC)

Studio Requirement, 6 hours
ART 111 Visual Fundamentals, 2-D (3) ***
*** (this course has special computer requirements)
ART 121,122 Drawing I, II (3, 3)
ART 171 Visual Fundamentals, 3-D (3)

Foreign Language Requirement, 6 upper division hours
At least two years foreign language (completion of 202 or equivalent). Students planning to pursue graduate studies in the history of art and architecture should discuss additional language study with an adviser.

Transfer Requirements, Writing Portfolio and Grades

To qualify for admittance to the major, transfer students must meet with the head of the art history area. Majors are required to maintain a minimum 2.00 GPA and keep an electronic portfolio of art history-related papers, assignments, and other material. All courses for the major must be taken for a grade.

Miami Plan Requirements, 48 hours

Foundation courses within the major may be applied toward fulfillment of Miami Plan requirements. A Thematic Sequence must be chosen from departments outside the major. ART 498, the Capstone Seminar taken during the senior year, meets the Miami Capstone Course requirement.

Departmental Honors

To graduate with Departmental Honors, students must maintain a 3.50 gpa in the major and complete an honors thesis. Thesis proposals are submitted during the junior year. Successful applicants earn six upper division hours* for research and writing (ART 477C), after which the thesis is submitted for approval to the Departmental Honors committee.

* These credit hours are in addition to the upper division credits required for the major.

Studio Art - Ceramics, Metals, Painting, Photography, Printmaking, and Sculpture- Bachelor of Fine Arts

This program includes 39 semester hours of basic art requirements in the freshman and sophomore years. Upper-class students must earn six semester hours in the history of art at 300 or 400 level, six semester hours in advanced drawing, 12 semester hours in a single studio area with six hours at 300 level and six at 400 level, and 12 semester hours of studio electives taken at any level.

If you intend to continue into graduate studies in studio art, you should take a 300- and 400-level course sequence in your concentration area and additional studies in the history of art.

The program requirements below incorporate all requirements in art and the Miami Plan.

Program Requirements
(128 semester hours minimum)

First year
ART 111 Visual Fundamentals (3)
ART 121,122 Drawing I, II (3, 3)
ART 171 Visual Fundamentals: 3D (3)
ART 281 Contemporary Art Forum (1; maximum 3)
ENG 111,112 College Composition/Composition and Literature (3, 3)*
Miami Plan and electives (4, 4)
Art History Survey (3)

This one:
ART 188 History of Western Art: Renaissance-Modern (3)*

Choose one of the following survey courses: (3 total)
ART 185 India and Southeast Asia (3)*
ART 186 China, Korea, and Japan (3)*
ART 187 History of Western Art: Prehistoric-Gothic (3)*

Second year
ART 221, 222 Drawing III, IV (3, 3)
ART 231 Painting I (3)

Art studio elective (200 level) (3)

ART 281 Contemporary Art Forum (1; maximum 3)
Miami Plan and electives (7, 7)

Two-dimensional studio. One of these:
ART 241 Printmaking I (3)
ART 257 Photography I (3)

Three-dimensional studio. One of these:
ART 261 Ceramics I (3)
ART 264 Jewelry Design and Metals I (3)
ART 271 Sculpture I (3)

Art studio elective (3)
Select one additional 200 level studio

Note: Studio core must be completed before registering for studio concentration in the junior year.

Third year
ART 321, 322 Drawing V, VI (3, 3)
ART 323 Thematic Studio (3-4; maximum 7)
ART 496 Seminar on Theory for Visual Artists (3; maximum 6)

Art History. Select one:
ART 318 Modernism, Modernity, and the Visual Arts (3) **or**
ART 319 Postmodern Art and Theory (3)
ART 489 Art of the Late 20th Century (3)

Art history elective (300- or 400-level) (3)
Studio electives (200- or 300-level) (3, 3)
Any studio elective outside concentration includes:
Sculpture, Ceramics, Metals, Printmaking, Photography, Painting
ART 255 Introduction to Digital Imaging (3)
ART/IMS 259 Aesthetics and Computation (3)
Studio concentration: six semester hours in one 300-level area
Art elective, (3) includes: Studio and Art History courses
Miami Plan and electives (4, 4)

Fourth year
Studio electives (200-, 300-, or 400-level) (3, 3)
(Any studio elective outside concentration includes:
Sculpture, Ceramics, Metals, Printmaking, Photography, Painting, and
ART 255 Introduction to Digital Imaging (3)
ART/IMS 259 Aesthetics and Computation (3)
Studio concentration: six semester hours in one 400-level area
Art elective: Art History, Art Capstone, or Studio (3)
Miami Plan and electives (10, 10)

* Miami Plan Foundation course

Department of Music

The department offers the Bachelor of Music in music education and music performance and the Bachelor of Arts in Music. The graduate degree, Master of Music, is offered in music education and music performance and is described in the Graduate section of the *Bulletin*.

The bachelor's degree programs offer preparation for careers in public school teaching, performance, and for future study at the graduate level. It is also the objective of the department to provide courses in music theory and literature, applied music, and ensemble for non-music majors. Applied music and ensemble require audition.

The department's mission, goals, and objectives are available on the department Web site: *www.muohio.edu/music/*

Special Admission Requirements: Music Majors

All music majors require audition for admission to the department. Each applied area (voice, piano, flute, etc.) has its own requirements for admission. For more information contact the Department of Music, 109 Presser Hall (513-529-3014).

Music majors, performance minors, and thematic sequence students who discontinue applied music study at Miami University for one semester (or more) are required to re-audition in order to be eligible to resume applied music study. This policy does not apply to anyone involved in student teaching or a Miami-sponsored study abroad program. After two semesters at a given level, music majors and performance minors are required to take a jury to advance to the next level. *Students who fail to advance to the next level of applied music after two attempts are not allowed to continue as either a music major or minor.*

Special Curriculum Requirements

Large Ensemble

All students enrolled in a music major are required to participate in one of the large ensembles each semester: University Symphony Orchestra, Marching Band, Symphonic Band, Collegiate Chorale, Chamber Singers, Choraliers, Men's Glee Club, and Wind Ensemble. Entrance to each group is by audition. Music education majors are not required to participate in an ensemble during the semester of student teaching.

Functional Piano

All music majors must complete the Functional Piano Requirement: completing through MUS 261 for music education and performance, and MUS 161 for Bachelor of Arts in Music, or take a piano proficiency exam (offered one time in each of the fall and spring semesters). The proficiency exam is designed for students who have advanced piano skills (six to eight years of piano study). The exam may only be attempted during a student's first year as a music major. *Interested students must see the functional piano coordinator during the first two weeks of Fall semester to receive the exam requirements.*

Students with transfer credit in functional piano must demonstrate performance competency for the functional piano coordinator in order to receive credit toward the music degree.

Recital Attendance

All music majors must complete seven semesters of MUS 140.

Honors Program

Music students may apply for honors work at the end of the junior year. Requirements for the program include a 3.50 cumulative g.p.a., sponsorship by a member of the music faculty, and approval of the department chair.

The program includes independent study (MUS 481-482) taken during the senior year and also requires a thesis, other scholarly document, or lecture/recital. The student is responsible for identifying two faculty persons, in addition to the faculty sponsor, who will serve as readers of the thesis or jury members for the lecture recital. Successful students graduate with departmental honors.

Music- Bachelor of Arts in Music

For information, contact the Department of Music, 109 Presser Hall (513-529-3014).

In addition to the professional degrees in music performance and music education, the Department of Music offers the Bachelor of Arts degree in Music. This program combines the breadth of a liberal arts tradition with concentrated studies in music. It is intended for students who have strong musical abilities and are preparing for a wide variety of careers, musical and non-musical.

Program Requirements
(128 semester hours minimum)

Complete the Miami Plan.

Complete Department of Music requirements.

All of these:
MUS 101-102 Theory of Music (2, 2)
MUS 151-152 Sightsinging and Dictation (1, 1)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3) *
MUS 201-202 Theory of Music (2, 2)
MUS 251-252 Sightsinging and Dictation (1, 1)
MUS 311-312 History of Western Music (3, 3)
* Miami Plan Foundation course

Complete a minimum of four (4) hours of electives outside of the Department of Music. Other electives may include courses in the Department of Music.

Complete a 12-15 hour concentration in Composition, Music Theory, Music Literature/Theory, or Black Music.

Achievement of junior standing in a major applied area. This proficiency is established through audition. Usually four semesters of applied music are required to reach junior standing.

Complete foreign language requirement: two years are required. (Completion of 202 in any foreign language offered at Miami University). Requirement may be met by proficiency exam.

Complete functional piano requirement: MUS 161 or proficiency exam required.

It is the responsibility of the student to check to see that all university requirements have been fulfilled.

Concentration in Composition
(12 semester hours)

All of these:
MUS 261 Class Piano (1) or proficiency examination (functional piano requirement)
MUS 301 Counterpoint (3)
MUS 371 Composition (3)
MUS 372 Composition (3) **or**
MUS 304 Commercial Applications in Composing and Arranging (3)
MUS 451-452 Advanced Sightsinging and Dictation (1, 1)

Recommended Music Electives (not required)
MUS 117 Class Voice (1) **or**
MUS 118 Class Voice (1)
MUS 231, 232A, 232B, 233, 234 Class Instruments (1, 1, 1, 1)
MUS 302 Analysis (3)
MUS 303 Electronic Music (3)
MUS 304 Commercial Applications in Composing/Arranging (3)
MUS 342 Applied Music (2)
MUS 352 General Conducting (2)
MUS 372 Composition (3)
MUS 401 Studies in Music Theory (3)
MUS 402 Instrumental Arranging (3)
MUS 427 Music of the Twentieth Century (3)
MUS 442 Applied Music (2)
MUS 461 American Music (3)
MUS 471, 472 Composition (3, 3)

Concentration in Music Theory
(12 semester hours - plus required electives that may be counted as part of the Miami Plan for Liberal Education)

Category I: All of these:
MUS 301 Counterpoint (3)
MUS 302 Analysis (3)
MUS 401 Special Studies in Music Theory (3)
MUS 451, 452 Advanced Ear Training (1, 1)
MUS 477 Independent Study: Supervised tutoring experience in music theory (1)
PHL 263 Informal Logic (4) ** **or**
PHL 273 Formal Logic (4) *,**
MTH 151 Calculus (5) *, ** **or**
PSY 111 Introduction to Psychology (4) * **or**
EDP 101 Critical Issues in the Psychology of the Learner (3) *

Category II: Two of these:
ENG 201 Language Awareness (3) *
ENG 303 Introduction to Linguistics (4) * (cross listed w/SPN 303 and GER 309)
MTH 151 Calculus (5) (not if selected in Category I)*, **
MTH 231 Elements of Discrete Mathematics (3) **
PHL 241 Aesthetics (4)
PHL 273 Formal Logic (4) (not if selected in Category I) *, **
PSY 231 Developmental Psychology (3)**
PSY 271 Cognitive Psychology (3)**

* Miami Plan Foundation Course
** Miami Plan Thematic Sequence Course

Concentration in Music Literature and Theory
(12 semester hours)

Two of these:
MUS 301 Counterpoint (3)
MUS 302 Analysis (3)
MUS 303 Electronic Music (3)
MUS 371, 372 Composition (3, 3)
MUS 490 Special Topics in Music (3)

Two of these:
MUS 427 Music of the 20th Century (3)
MUS 457, 458 Piano Literature (3, 3)
MUS 461 American Music (3)
MUS 462 Opera and Drama (3)

Concentration in Black Music
(15 semester hours)

All of these:
MUS 135 Understanding Jazz, Its History and Evolution (3)*
MUS 285 A Survey of African Music in the Diaspora (3)
MUS 287 Enter the Diva: Women in Music (3)
MUS 385 The Roots of Black Music: Gospel, Blues, and Soul (3)
MUS 386 The History and Development of Hip Hop Culture in America (3)

Music Education- Bachelor of Music

For information, contact the Department of Music, 109 Presser Hall (513-529-3014).

Two programs, both with licensure for age 3 through grade 12, are offered: choral/general program and instrumental music program. Both programs include 100 hours of field experiences in urban, suburban, and rural schools prior to student teaching. With successful completion of all degree requirements, a candidate applies for a State of Ohio Provisional License for Teaching Music, Pre-K through Grade 12. The State of Ohio has reciprocal agreements with many other states, whereby a person holding licensure in Ohio, under certain conditions, may receive licensure in other states that are part of the agreement.

Majors are assigned full-time supervised teaching during first or second semester of the senior year. During this semester, you cannot participate in any ensembles or carry any other academic work except with special permission of the faculty.

Program Requirements: Choral/General Program
(128 semester hours minimum)

Complete the Miami Plan.

Complete department requirements; your fourth-year semesters are interchangeable.

All of these:
MUS 101-102 Theory of Music (2, 2)
MUS 112 Lab Choir (enroll for at least two semesters) (1, 1)
MUS 142 Applied Music (2, 2)
MUS 151-152 Sightsinging and Dictation (1, 1)
MUS 175 Introduction to Music Education (1)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*
MUS 201-202 Theory of Music (2, 2)
MUS 221 Composition Software-Basic Skills in Software for Music Printing and Sequencing (1)
MUS 235 Lyric Diction (2)
MUS 242 Applied Music (2, 2)
MUS 248 Class Instruments: Brass, Woodwinds, Strings (1)
MUS 249 Class Instruments: Percussion, Guitar (1)
MUS 251-252 Sightsinging and Dictation (1, 1)
MUS 275 Sophomore Practicum in Music Education (1)
MUS 311-312 History of Western Music (3, 3)
MUS 342 Applied Music (2, 2)
MUS 351 Choral Techniques (2)
MUS 352 General Conducting (2)
MUS 353 Choral Conducting (2)
MUS 355 General Music Teaching Techniques, Elementary (4)
MUS 356 Secondary General Music Techniques (1)
MUS 419 Supervised Teaching in Music (12)
MUS 442 Applied Music (2)
MUS 456 Vocal Pedagogy (2)
MUS 475 Senior Practicum in Music Education (3)
EDL 204 Sociocultural Studies in Education (3)*
EDL 318 Teacher Leadership and School Organization (3)
EDP 201 Educational Psychology: Human Development and Learning in Educational Environments (3)*
EDP 256 Psychology of the Exceptional Learner (3)
EDP 301 Assessment and Evaluation in Educational Settings (3)
* Miami Plan Foundation course

Functional piano requirement: MUS 261.

Minor applied requirement: An applied major in piano or band/orchestral instrument is required to take four hours of class or private voice in addition to major applied study.

Seven semesters of recital attendance requirement

Participation in large choral ensemble each semester except semester of student teaching.

Performance requirement: half recital in senior year (no credit).

Admission to sophomore courses in music education contingent upon fulfillment of the following requirements: minimum overall g.p.a. of 2.25 and minimum g.p.a. of 2.75 in all music courses (including a maximum of one ensemble per semester).

Admission to junior courses in music education contingent upon fulfillment of the following requirements: minimum overall g.p.a. of 2.25 and minimum g.p.a. of 2.75 in all music courses (including a maximum of one ensemble per semester).

Admission to student teaching contingent upon fulfillment of the following requirements: minimum overall g.p.a. of 2.25, minimum g.p.a. of 2.75 in all music courses (including a maximum of one ensemble per semester), an ACT composite score of 21 or better or total SAT score of 930 or better. (Praxis I scores of 174 in each category may be substituted for SAT or ACT scores); completion of the functional piano requirement; and completion of MUS 351, 352, 353, 355, and 356.

Teacher licensure in Ohio and most other states requires completion of a baccalaureate teacher licensure program, passing a licensure examination, and a background check. One semester before the semester you are to graduate, take licensure examination (Praxis II),

start background check, and apply for licensure. All costs are the responsibility of the applicant. Details are available in 202 McGuffey Hall.

It is the responsibility of the student to see that all university requirements are fulfilled.

Program Requirements: Instrumental Music Program

(128 semester hours minimum)

Complete the Miami Plan.

Complete department requirements; your fourth year semesters are interchangeable.

All of these:

MUS 101-102 Theory of Music (2, 2)
MUS 111 Lab Band (enroll for at least two semesters) (1, 1)
MUS 142 Applied Music (2, 2)
MUS 146 Vocal/General Music Methods and Materials (1)
MUS 151-152 Sightsinging and Dictation (1, 1)
MUS 175 Introduction to Music Education (1)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*
MUS 201-202 Theory of Music (2, 2)
MUS 221 Composition Software-Basic Skills in Software for Music Printing and Sequencing (1)
MUS 231 Class Instruments (Brass) (1)
MUS 232A Class Instruments (Woodwinds I) (1)
MUS 232B Class Instruments (Woodwinds II) (1)
MUS 233 Class Instruments (Percussion) (1)**
MUS 234A Class Instruments (Strings I) (1)
MUS 234B Class Instruments (Strings II) (1)
MUS 242 Applied Music (2, 2)
MUS 251-252 Sightsinging and Dictation (1, 1)
MUS 275 Sophomore Practicum in Music Education (1)
MUS 311-312 History of Western Music (3, 3)
MUS 342 Applied Music (2, 2)
MUS 352 General Conducting (2)
MUS 354 Instrumental Conducting (2)
MUS 358 Marching Band Techniques (2)***
MUS 359 Instrumental Methods, Elementary and Secondary (4)
MUS 419 Supervised Teaching in Music (12)
MUS 442 Applied Music (2)
MUS 475 Seminar Practicum in Music Education (3)
EDL 204 Sociocultural Studies in Education (3)*
EDL 318 Teacher Leadership and School Organization (3)
EDP 201 Educational Psychology: Human Development and Learning in Educational Environments (3)*
EDP 256 Psychology of the Exceptional Learner (3)
EDP 301 Assessment and Evaluation in Educational Settings (2)
* Miami Plan Foundation course
** Percussion majors substitute one-hour music elective course for MUS 233.
*** String instrument majors substitute MUS 433 String Instrument Pedagogy (1) for MUS 358.

Seven semesters of recital attendance requirement.

Functional piano requirement: MUS 261.

Minor applied requirement: An applied major in piano is required to take four hours of private lessons in band or orchestral instrument in addition to major applied study.

Participation in large instrumental ensemble each semester except semester of student teaching.

Performance requirement: Half recital in senior year (no credit) while registered for 400 level applied music.

Marching band requirement: Wind and percussion majors must participate two semesters.

Admission to sophomore courses in music education contingent upon fulfillment of the following requirements: minimum overall g.p.a. of 2.25 and minimum g.p.a. of 2.75 in all music courses (including a maximum of one ensemble per semester).

Admission to junior courses in music education contingent upon fulfillment of the following requirements: minimum overall g.p.a. of 2.25 and minimum g.p.a. of 2.75 in all music courses (including a maximum of one ensemble per semester).

Admission to student teaching contingent upon fulfillment of the following requirements: minimum overall g.p.a. of 2.25, minimum g.p.a. of 2.75 in all music courses (including a maximum of one ensemble per semester), an ACT composite score of 21 or better or total SAT score of 930 or better. (Praxis I scores of 174 in each category may be substituted for SAT or ACT scores); completion of the functional piano requirement; and completion of MUS 352, 354, 358 (except for stringed instrument majors), and 359.

Teacher licensure in Ohio and most other states requires completion of a baccalaureate teacher licensure program, passing a licensure examination, and a background check. One semester before the semester you are to graduate, take licensure examination (Praxis II), start background check, and apply for licensure. All costs are the responsibility of the applicant. Details are available in 202 McGuffey Hall.

It is the responsibility of the student to see that all university requirements are fulfilled.

Music Performance- Bachelor of Music

For information contact the Department of Music, 119 Center for Performing Arts (513-529-3014). Two programs are offered: one for voice majors and one for all majors except voice.

Program Requirements: Voice Major

(128 semester hours minimum)

Complete the Miami Plan.

Complete department requirements.

All of these:

MUS 101-102 Theory of Music (2, 2)
MUS 144A Applied Music (Voice) (3, 3)
MUS 151-152 Sightsinging and Dictation (1, 1)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*
MUS 201-202 Theory of Music (2, 2)
MUS 235-236 Lyric Diction (2, 2)
MUS 244A Applied Music (Voice) (3, 3)
MUS 251-252 Sightsinging and Dictation (1, 1)
MUS 301 Counterpoint (3)
MUS 302 Analysis (3)
MUS 311-312 History of Western Music (3, 3)
MUS 320 Opera Production (2, 2)
MUS 344A Applied Music (Voice) (3,3)
MUS 420 Opera Coaching (1, 1)
MUS 444A Applied Music (Voice) (3, 3)
MUS 451-452 Sightsinging and Dictation (1, 1)
MUS 491 or 492 Senior Recital (2) **or**
MUS 493 Capstone Senior Recital (3)
* Miami Plan Foundation course

Seven semesters of recital attendance requirement.

Functional piano requirement: MUS 261.

Language requirement: One year in French, German, or Italian, in addition to Lyric Diction; may be met by proficiency exam. Two years of the language in high school usually fulfills the requirement.

Performance requirement: Half recital, junior year (no credit); full recital, senior year.

It is the responsibility of the student to see that all university requirements are fulfilled.

Program Requirements: All Majors Except Voice

(128 semester hours minimum)

Complete the Miami Plan.

Complete department requirements.

All of these:

MUS 101-102 Theory of Music (2, 2)
MUS 144 Applied Music (3, 3)
MUS 151-152 Sightsinging and Dictation (1, 1)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*
MUS 201-202 Theory of Music (2, 2)
MUS 244 Applied Music (3, 3)
MUS 251-252 Sightsinging and Dictation (1, 1)
MUS 301 Counterpoint (3)
MUS 302 Analysis (3)
MUS 311-312 History of Western Music (3, 3)
MUS 344 Applied Music (3, 3)
MUS 444 Applied Music (3, 3)
MUS 451-452 Sightsinging and Dictation (1, 1)
MUS 491 or 492 Senior Recital (2) **or**
MUS 493 Capstone Senior Recital (3)
* Miami Plan Foundation course

Seven semesters of recital attendance requirement.

Functional piano requirement: MUS 261.

Performance requirement: Half recital, junior year (no credit); full recital, senior year.

Major instrument requirements:

Piano: MUS 110, 120, or 109S Accompanying or Chamber Music (2)
MUS 430 Piano Pedagogy (2)
MUS 457-458 Piano Literature (3, 3)
Violin: Viola proficiency equivalent to MUS 242P Viola
Strings: MUS 433-434 String Pedagogy (1, 1)
MUS 109S Chamber Music (2)
Percussion: MUS 109P Percussion Ensemble (1, 1)

It is the responsibility of the student to see that all university requirements are fulfilled.

Department of Theatre

Theatre: Bachelor of Arts in Theatre

For information, contact the Department of Theatre, 119 Center for Performing Arts (513-529-3053). The department offers a Bachelor of Arts in Theatre. The Master of Arts in Theatre is described in the Graduate Fields of Study section of this *Bulletin*.

The Bachelor of Arts in Theatre is intended for students who wish to pursue the field of theatre situated within a liberal arts tradition. The undergraduate program is committed to developing creative thinkers with artistic vision through a program that emphasizes the interplay between critical thinking and artistic practice.

Program Requirements

(128 semester hours)

Take all of these core courses (23 semester hours):
THE 101 Introduction to Theatre: Drama and Analysis (3)*
THE 103 Introduction to Theatre: Production and Performance (1)*
THE 131 Principles of Acting (3)
THE 202 Stagecraft (3)
THE 204 Stagecraft Lab (1)
THE 251 Visual Communication for the Theatre (3)
THE 291 World Stages and Performance (3)
THE 292 World Stages and Performance (3)
THE 341 Fundamentals of Directing (3)

* Miami Plan Foundation course

Category A: Choose nine (9) hours
THE 151 Stage Makeup (1)
THE 231 Acting Realism (3)
THE 232 Movement for Actors I (2)
THE 233 Voice and Speech for Actors (2)
THE 252 Technical Production (3)
THE 253 Costume Fundamentals (3)
THE 254 Lighting and Sound Fundamentals (3)
THE 314 Playwriting (4)
THE 331 Advanced Scene Study (3)
THE 332 Movement for Actors II (2)
THE 333 Stage Dialects (2)
THE 342 Stage Management (2)
THE 432/532 Acting Shakespeare (3)
THE 437/537 Professional Qualifications I: Auditions (2)
THE 438/538 Professional Qualifications II: Agencies (2)
THE 439/539 Special Techniques for the Actor (3 hours, max. 6 hours)
THE 441/541 Methods/Styles of Play Directing (3)
THE 451/551 Scenic Design (3)
THE 453/553 Costume Design (3)
THE 454/554 Lighting Design (3)
THE 455/555 Tutorial in Advanced Problems (1-6)
THE 456/556 Sound Design (3)

* Prerequisite for all future performance classes

Category B: Choose six (6) hours:
THE 391 Modern American Theatre (3)
THE 392 Modern European Theatre (3)
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3)
THE 395 The American Musical I (3)
THE 396 The American Musical II (3)
THE 491 Theatre History I (3)
THE 492 Theatre History II (3)
THE 493 American Theatre (3)

Complete eight (8) hours from these:
THE 340 Internship (1-16)
THE 440 Summer Theatre Workshop (4-8)
Focused Studies (planned with an adviser)

- Complete one year of the same foreign language (6-8 hours)
- Complete five semesters of theatre production practicum (THE 200, THE 400)

Fine Arts Minors

A minor is a specific program to be taken along with a major to complement your skills and increase your career opportunities. Taking a minor is optional. Students may use a minor in lieu of a Thematic Sequence *only if* the minor includes three courses outside the department of major.

A minimum 2.00 g.p.a. is required for all courses in a minor. Additional requirements and qualifications for minors are included in the Other Requirements section. Students who complete a minor receive a notation on their final transcript if they make application when they apply for graduation. For information on minors that include sequences, see the Office of Liberal Education. For further restrictions see the Thematic Sequence subheading in the Liberal Education at Miami section of this *Bulletin*.

Please contact the appropriate department to be assigned an adviser and to obtain a list of the most recent requirements. The required semester hours are in parentheses beside each minor.

2D Media Studies

(18 hours minimum)

To provide studio access and focus to the university population (with the exception of B.F.A. in Studio Art majors) to creatively solve problems using design concepts, materials, and processes in one or more of the following concentrations: Photography, Printmaking, and Painting.

The minor in two dimensional media studies explores art processes, developing concepts and techniques relevant to the materials, methods, and critically informed aesthetic thinking inherent in making visual art in two dimensions.

Two-dimensional concentrations in the department include photography, printmaking, and painting. The minor encourages breadth of exploration balanced with a requirement for a two course focus in one concentration.

A minimum 2.5 g.p.a. is required for admittance to the minor and is required for all courses in the minor. Students planning to take this minor should consult a faculty advisor in photography, printmaking, or painting.

Program requirements

Take one of these: (3 hrs. total)
ART 111 Visual Fundamentals (3)
ARC 113 Methods of Presentation, Representation and Re-Presentation (2)
EAS 102 Problem Solving and Design (3)

Take one or two of these in consultation with advisor: (3-6 hrs. total)
ART 121 Drawing I (3)
ART 122 Drawing II (3)
ART 221 Drawing III (3)
ART 222 Drawing IV (3)
ART 350 Illustration (3)

Take three - four courses in Two Dimensional Studio Art Concentrations (9-12 hrs. total)

You must take at least two courses focused in one studio area, with one being the introductory course.

Photography I
ART 255 Introduction to Digital Imaging (3)

ART 257 Photography (3)
ART 357 Photography II (3)
ART 358 Photography III (3)

Printmaking I
ART 241 Printmaking I (3)
ART 341 Printmaking II (3)
ART 342 Printmaking III (3)

Painting I
ART 231 Painting I (3)
ART 331 Painting II (3)
ART 332 Painting III (3)

3D Media Studies
(18 semester hours)

For information, contact the Department of Art, 124 Art Building (513-529-2900).

3-D Media Studies explores and develops concepts, techniques, materials, methods, and critical aesthetic thinking as applied to the process of making three-dimensional objects. Three-dimensional art as a non-verbal language is taught through research, production, viewing, interaction, and verbal critique with a focus on further development toward a significant personal expression through a 400-level studio disciplinary sequence.

There are three tracks within the minor that allow students to focus their experience on a disciplinary sequence. A minimum 2.5 g.p.a. is required for admittance to the minor and is required for all courses in this minor. Courses must be taken for a grade (not credit/no-credit). Students planning to take this minor must consult with the track professor.

Program requirements:

Take one of the following (three hours total):
ART 171 Visual Fundamentals: 3-D (3)
ARC 102 Architectural Design Studio (5)
EAS 102 Problem Solving and Design (3)

Choose one track (fifteen hours):

Ceramics track
ART 261 Ceramics I (3)
ART 361 Ceramics II (3)
ART 362 Ceramics III (3)
ART 461 Ceramics IV (3)
ART 462 Ceramics V (3)

Metals track
ART 264 Jewelry Design and Metals I (3)
ART 364 Jewelry Design and Metals II (3)
ART 365 Jewelry Design and Metals III (3)
ART 464 Jewelry Design and Metals IV (3, 3)

Sculpture track
ART 271 Sculpture I (3)
ART 371 Sculpture II (3)
ART 372 Sculpture III (3)
ART 471 Sculpture IV (3)
ART 472 Sculpture V (3)

Art and Architectural History
(24 semester hours)

For information, contact the Department of Art, 124 Art Building (513-529-2900) or the Department of Architecture, 101 Alumni Hall (513-529-7210).

A minor in the history of art and architecture establishes a foundation for further study in these areas and provides a better understanding of artistic and cultural forces that influenced the development of art forms through the ages. Knowledge in these areas is valuable for careers in studio art, art education, architectural design, historic preservation and restoration, museum curatorship, or administration and other related fields.

Program Requirements

Three hours from these:
ARC 107 Global Design (3)
ARC 188 Ideas in Western Architecture (3)*
ARC 221, 222 History and Philosophy of Environmental Design (3, 3)

Six hours from these:
ART 107 Art in a Global Context (3)
ART 185 India and Southeast Asia (3)*
ART 186 China, Korea, and Japan (3)*
ART 187 History of Western Art: Prehistoric - Gothic (3)*
ART 188 History of Western Art: Renaissance - Modern (3)*
ART 189 History of Western Dress (3)

Fifteen semester hours in upper division art or architectural history

* Miami Plan Foundation course

Arts Management
(19 semester hours)

For information, contact the adviser in the School of Fine Arts, 125 Center for Performing Arts (513-529-1490).

Increased public interest in the arts has created a need for fine arts and business professionals who are prepared for management responsibilities in arts councils, museums, art centers, galleries, orchestras, and theatres.

This minor has two options: one for **fine arts majors** and one for **business majors**. Please meet with the appropriate adviser to plan your minor.

A minimum 2.00 g.p.a. is required for all courses in a minor. All courses, except the internship, must be taken for a grade (not credit/no-credit).

Core Requirements for Business and Fine Arts Majors (10 hours)

All Arts Management minors must take all of the following:
CFA 182 Experiencing the Arts (1 - repeatable)
CFA 201 Introduction to Arts Management (3)
CFA 340 Arts Management Internship (3)
CFA 410 Advanced Topics in Arts Management (3)

Program Requirements: Business Majors (9 hours)

Select six (6) hours from the following:
ARC 188 Ideas in Western Architecture (3) *
ARC 426 Architecture and Society (3) **
ART 181 Concepts in Art (3) *
ART 185 India and Southeast Asia (3) *
ART 186 China, Korea, and Japan (3) *
ART 187 History of Western Art: Prehistoric to Gothic (3) *
ART 188 History of Western Art: Renaissance to Modern (3) *
ART 455 20th Century Design and Culture (3)
MUS 135 History of Jazz (3) *
MUS 185 Diverse Worlds of Music (3) *
MUS 189 Great Ideas in Western Music (3) *
THE 101 Introduction to Theatre: Drama and Analysis (3) *
THE 103 Introduction to Theatre: Production and Performance I (1) *
THE 191 Theatre Appreciation (3) *
THE 393 Cultural, Gender, and Ethnic Issues in Dramatic Literature (3)
THE 490 Theatre and a Cultural Aesthetic (3) **

Select at least three hours from the following:
ART 111 Visual Fundamentals 2-D (3)
ART 121 Beginning Drawing (3)
ART 171 Visual Fundamentals 3-D (3)
KNH 110A,B Beginning Ballet/Beginning Ballet II (2)
KNH 110G Modern Dance (2)
KNH 110R Jazz (2)
KNH 110S Social Dance - Men (2)
KNH 110T Social Dance - Women (2)
Music Ensembles:
- MUS 100A Collegiate Chorale (2)
- MUS 100B Men's Glee Club (2)
- MUS 100C Symphony Orchestra (2)
- MUS 100D Choraliers (2)
- MUS 100E Marching Band (2)
- MUS 100F Symphonic Band (2)
- MUS 100G Wind Ensemble (2)
- MUS 100U Basketball/Hockey Band (1)
- MUS 100H Chamber Music Brass (1)

MUS 100R Chamber Music Winds (1)
MUS 100S Cello Choir (1)
MUS 100K Jazz Ensemble (1)
MUS 100N Steel Drum Ensemble (1)
MUS 100P Chamber Orchestra (1)
MUS 100M Percussion Ensemble (1)
MUS 100X Marching Band Percussion Ensemble (1)
MUS 100I Chamber Music Strings (1)
MUS 100T Trumpet Ensemble (1)
MUS 100Q Chamber Singers (2)
MUS 320 Opera Production (2)
THE 123 Acting for the Non-Major (3)
THE 200 Production and Performance Practicum (1-8)

Program Requirements: Fine Arts Majors (9 hours)

Option 1

Choose three of the following:
ACC 221 Introduction to Financial Accounting (3)
ECO 201 Principles of Macroeconomics (3)
ESP 201 Introduction to Entrepreneurship (3)
MGT 111 Introduction to Business (3) *
MKT 291 Principles of Marketing (3)

* Miami Plan Foundation course
** Miami Plan Capstone course

Option 2
ESP 311 Entrepreneurial Marketing (3)
ESP 366 Imagination and Entrepreneurship (3)
ESP 469 Entrepreneurship in Complex Organizations (3)

Option 3
Summer Business Institute (9):
BUS 301 Macro Concepts in Contemporary Business (3)
BUS 302 Micro Concepts in Contemporary Business (3)
BUS 303 Business Process Integration (3)

Landscape Architecture

(22 semester hours)

Note: The landscape architecture minor is under review. For current program information, contact the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

The minor in landscape design serves three primary purposes. First, it supports the learning of landscape issues within the disciplines of architecture and interior design. Second, it provides a directed sequence of interdisciplinary courses in the area of landscape studies for students who wish to broaden their knowledge of this subject. Third, it serves as a method of exploring landscape professions for those students who are considering this career path or further study at the graduate level.

Students interested in declaring this minor should contact the Department and arrange to meet with the coordinator of the minor. The program requires successful completion of 22 semester hours with a 2.00 g.p.a. All courses must be taken for a letter grade.

Program Requirements

Required Core - All of these (recommended in this order):
ARC 211 Introduction to Landscape and Urban Design (3)
ARC 335 Landscape: Inquiry and Experience (3)
ARC 435 Theory and History of Landscape Architecture (3)
ARC 430/530 Plants in Design (1-2)

One of these:
BOT 155 Field Botany (3) *
BOT 241 Botanical Principles in Landscape Gardening (3)

Three of the following (only one course may be at the 100 level):
AMS/HST 397 American Environmental History (3)
ATH 471/571 Ecological Anthropology (3) **
BOT 131 Plants, Humanity, and Environment (3) *
BOT 171 Ecology of North America (3)*
BOT 431/531/GEO 431/531 Plant Geography (3) **
GLG 121 Environmental Geology (3) *
GLG 207 Water and Society (3) **
GEO 221 Regional Physical Environments (3)**
GEO 437 Regional Land Use Capability Analysis (3)
GEO 451 Urban and Regional Planning (3)
GEO 454 Race, Urban Change and Conflict in America (3)
GEO 459/559 Advanced Urban and Regional Planning (3)**
IES 431/531 Principles and Applications of Environmental Science (3) **
PHL 376 Environmental Philosophy (4)
ZOO 121 Environmental Biology (4) *

* Miami Plan Foundation course
** Miami Plan Thematic Sequence Course

Music Composition

(25 semester hours)

For information, contact the Department of Music, 109 Presser Hall (513-529-3014). This minor is for those who want to complement their education with creative study in music composition. The program covers a basic musical background in the first two years followed by specialized compositional study in the remaining courses. Open to music majors.

Program Requirements

All of these:
MUS 101-102 Theory of Music (2, 2)
MUS 151-152 Sightsinging and Dictation (1, 1)
MUS 201 Theory of Music (2)
MUS 251-252 Sightsinging and Dictation (1, 1)
MUS 371-372 Composition (3, 3)

One of these:
MUS 185 Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*

Two of these:
MUS 301 Counterpoint (3)
MUS 303 Electronic Music (3)
MUS 304 Commercial Applications in Composing/Arranging (3)

* Miami Plan Foundation course

Music History

(24 semester hours)

For information, contact the Department of Music, 109 Presser Hall (513-529-3014). This minor is for those who want to complement their skills and increase their career options. Not open to music majors.

Program Requirements

All of these:
MUS 101-102 Theory of Music (2, 2)
MUS 201-202 Theory of Music (2, 2)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*
MUS 311-312 History of Western Music (3, 3)
Additional four semester hours selected with adviser approval.

* Miami Plan Foundation course

Music Performance

(28 semester hours)

For information, contact the Department of Music, 109 Presser Hall (513-529-3014). This minor is for those who want to complement their skills and increase their career options. Audition is required. Not open to music performance and music education majors.

Program Requirements

All of these:
MUS 101-102 Theory of Music (2, 2)
MUS 151-152 Sightsinging and Dictation (1, 1) (vocal performance minor only; may be met by proficiency examination administered by theory faculty)
MUS 185 The Diverse Worlds of Music (3)*
MUS 189 Great Ideas in Western Music (3)*

Applied music requirement: 12 semester hours, includes four semester hours at 300 level.

Ensemble requirement for piano: Minimum four semester hours in major and/or minor vocal or instrumental ensembles.

Ensemble requirement for all except piano: Music ensemble with two semester hours credit (2, 2)

Recital requirement: One full recital in junior or senior year or two half-recitals in junior and/or senior year (no credit).

* Miami Plan Foundation course

Theatre and Drama

(25 semester hours)

For information, contact the Department of Theatre, 119 Center for Performing Arts (513-529-3053).

Program Requirements

All of these:
THE 101 Introduction to Theatre: Drama and Analysis (3) (MPF)
THE 102 Analysis: Methods and Research (3)
THE 103 Introduction to Theatre: Production and Performance (1) (MPF)

Three courses from:
THE 391 Modern American Theatre (3) (MPT)
THE 392 Modern European Theatre (3) (MPT)
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3) (MPT)
THE 491 Theatre History I (3)
THE 492 Theatre History II (3)
THE 493 American Theatre (3)

Nine hours selected with the approval of your minor adviser from at least two departments/programs *other than theatre.*

Recommended courses include:
CLS 212 Greek Tragedy (3)
CLS 213 Greek Comedy (3)
ENG 221 Shakespeare and Film (3)
ENG 346 Modern English and American Drama (3)
ENG 372,373 Shakespeare's Principal Plays (3, 3)
FRE 423 Classical French Theatre of the 17th and 18th Centuries (3)
GER 330 German Drama Production (1-2; maximum 8)
ITL 301,302 Introduction to Italian Literature (3, 3)
JPN 255 Drama in China and Japan in English Translation (3) (MPF)
LAS 207, 208 Latin American Civilization (3, 3) (MPF; LAS 208 is also MPT)
SPN 413 Texts and Contexts: Spain (3) (MPT)
SPN 414 Texts and Contexts: Spanish America (MPT) (3)
SPN 420 Selected Topics in Literature and Culture: Spain (3) (MPT) *

* prerequisites are SPN 413 and 414

Theatre Arts

(25 semester hours)

For information, contact the Department of Theatre, Center for Performing Arts (513-529-3053).

This minor offers students an opportunity to explore theatrical practice within a liberal arts tradition by providing study of performance and production in acting, directing, stagecraft, design arts, and theatre history and analysis. Register your intent to pursue the minor with the chief departmental adviser. A minimum g.p.a. of 2.00 is required for all courses in a minor. All courses must be taken for a letter grade.

Program Requirements

All of these:
THE 101 Introduction to Theatre: Drama and Analysis (3) (MPF)
THE 103 Introduction to Theatre: Production and Performance (1) (MPF)
THE 131 Principles of Acting (3)
THE 200 Theatre Production and Performance (1, 1)
THE 202 Stagecraft (3)
THE 204 Stagecraft Laboratory (1)
THE 251 Visual Communication for the Theatre (3)
THE 341 Fundamentals of Play Directing (3)

Two of these:
THE 391 Modern American Theatre (3) (MPT)
THE 392 Modern European Theatre (3) (MPT)
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3) (MPT)
THE 491 Theatre History I (3)
THE 492 Theatre History II (3)
THE 493 American Theatre (3)

Urban Design

(21 semester hours)

For information, contact the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

Urban design is the study of human relationships and their expression in the physical landscapes that are cities. Urban environment is a physical manifestation of social values. Relations that comprise the realm of urban design involve not simply buildings and their creation, but the infrastructure, politics, economics, sociology, commerce, and history of cities. Students planning to pursue careers in government, public administration, social work, architectural design, planning, etc., find their interests served by this minor.

You should meet with the coordinator of urban design studies to work out a program of study. Minimally, your program will include 21 semester hours completed with a 2.50 g.p.a. Courses must be taken for a grade (not credit/no-credit).

Program Requirements

Basic course work. All of these:
ARC 211 Introduction to Landscape and Urban Design (3)
GEO 201 Geography of Urban Diversity (3) *
POL 261 Public Administration (4)*

Nine semester hours from these:**
ARC 405 History/Theory Seminar (1-3)
ARC 426 Architecture and Society (3)
ARC 427 American City Since 1940 (3)
FSW 261 Diverse Families Across the Life Cycle (3) *
GEO 451 Urban and Regional Planning (3)
GEO 454 Urban Geography (3)
GEO 459 Advanced Urban and Regional Planning (3)
POL 364 Federalism and Intergovernmental Relations (3)
POL 467 Public Budgeting (3)
SOC 201 Social Problems (4)
Other course work is subject to approval by the coordinator.

* Miami Plan Foundation course
** Architecture majors: six of these nine hours must be from outside architecture; non-architecture majors: six of these nine hours must be architecture courses.

Three semester hours from these:
Independent Study/Field Study
Directed Urban Community Design Assistance Group (CDAG)
Municipal Internship

Fine Arts Certificates

Undergraduate Certificate in Design Thinking

The Design Thinking Certificate is offer by the Miami Design Collaborative, led by the School of Fine Arts. MDC is a multi-disciplinary design initiative that brings together students and faculty from throughout campus to develop expertise in design thinking and to implement that knowledge through complex, team-based, problem-solving experiences both inside and outside of the classroom. MDC offers the Design Thinking Certificate to students interested in gaining knowledge and a level of expertise in design process and collaborative problem-solving. Students must complete the following experiences to receive a certificate.

Program requirements:
CFA 111 Innovation, Creativity and Design Thinking (3)

Take a minimum of two curricular experiences:

Curricular experiences are defined as courses which are officially approved by the university to receive traditional credit hours and meet graduation requirements. The following courses are approved:

ART 354 3-Dimensional Design (6)
IMS 440 Interactive Media Studies Practicum (4)
Engineering Capstone (by advisor approval)
Architecture/Interior Design Studio (by advisor approval)
Other courses allowed through MDC advisor approval.

Participate in a minimum of one co-curricular experiences: Co-curricular experiences are defined as experiences outside of normal classroom activity and may or may not receive university credit. Such experiences would include identified conferences/symposiums, ad-hoc design challenges/competitions, service projects, student-organized activities, etc. (by MDC advisor approval only).

Each student pursuing the certificate will be advised by the MDC Advisor/Director.

At the close of the academic year, each student would be required to present a “portfolio” representing their progress and their work within the certificate program.

Hamilton, Middletown and Voice of America Learning Center

Hamilton campus
1601 University Blvd., OH 45011
Phone: 513-785-3000
TTY accessible: 513-785-3211
www.ham.muohio.edu

Middletown campus
4200 E. University Blvd., OH 45042
Phones: 513-727-3200, 1-866-426-4643
TTY accessible: 513-727-3308
www.mid.muohio.edu

Voice of America Learning Center
7847 VOA Park Dr.
West Chester, OH 45069
Phone: 513-895-8862
www.regionals.muohio.edu/voalc

Degrees and Majors Offered

Bachelor of Integrative Studies

(Refer to Bachelor's, Associate's Degree Programs and Certificate Programs section)

Bachelor of Science in Applied Science in:

Engineering Technology
(Refer to School of Engineering and Applied Science section)

Bachelor of Science in Nursing
BSN 4-Year and RN-BSN completion
(Refer to School of Engineering and Applied Science section)

Associate in Applied Science in:
Chemical Technology (Middletown only)
Computer and Information Technology
Computer Technology
Criminal Justice
Electrical and Computer Engineering Technology
Mechanical Engineering Technology
Prekindergarten Education

Associate in Arts in:
General Studies

Associate of Applied Business in:
Accounting Technology
Business Software Technology
Real Estate Technology
Marketing Management Technology

Associate of Technical Study

Certificate Programs Offered in:

Accounting
Banking
Business Information Software
Computer-Aided Drafting/Computer-Aided Manufacturing (CAD/CAM)
Computer Hardware Technology
General Supervision
Small Business Management
Small Office Management

General Information

Miami's regional campuses in Hamilton and Middletown are commuter campuses offering a Bachelor of Integrative Studies, a Bachelor of Science in Applied Science in engineering technology, Engineering Technology (Caps), a Bachelor of Science in Nursing, associate's degrees, certificate programs, courses to begin a bachelor's degree, selected graduate courses (for part-time master's degree programs in business and education), and continuing education courses. Classes are offered during the day, evening, Saturday, and at off-site locations to accommodate part-time and full-time students. Off-site courses are usually offered at the Voice of America Learning Center, Butler Tech Public Safety Education Complex, Hamilton; Eaton High School, Eaton; Lakota West High School, West Chester; and the Warren County Career Center, Lebanon.

The Hamilton and Middletown campuses offer student facilities and services. Each campus enrolls approximately 3,000 students.

Miami University Hamilton occupies about 75 acres on the east bank of the Great Miami River between Neilan and University boulevards in Hamilton. Classes began in 1968.

Miami University Middletown opened in 1966 on 142 wooded acres between University and Breiel boulevards in Middletown.

Miami University's Voice of America Learning Center is located in West Chester, Ohio, midway between Cincinnati and Dayton. Access from Interstate 75 is available from both the Liberty Way and Tylersville Road exits.

Students may take course work at Miami Hamilton, Miami Middletown, and Voice of America Learning Center to begin a bachelor's degree in most majors. Bachelor degrees can be completed in Nursing, Engineering Technology, or Bachelor of Integrative Studies departments (BIS is not a department yet) on the regional campuses, in other departments at the Oxford campus, or at other four-year institutions. Students may relocate (take the majority of credit hours in Oxford) as a matriculated Miami University student with at least 20 hours of earned Miami University college-level course work (not developmental 00_classes), at least a 2.00 cumulative grade point average, and an acceptable conduct record. Students with exceptions to these requirements may submit a petition in writing to the Director of Admission at Miami Hamilton, Miami Middletown, or Voice of America Learning Center.

At the graduate level, area educators have the advantage of the courses and programs offered through Miami's School of Education, Health and Society. Miami's nationally recognized Farmer School of Business began its Professional MBA program at the VOA Learning Center in the fall of 2009. The Learning Center is also home to Miami's Corporate & Community Institute which provides customized training and workforce development throughout the region.

Registration

Registration takes place on a continuous basis following admission and through the first week of classes each semester. Dates and times for new and continuing students may vary; consult the regional campus course schedules for specific information.

For More Information

Office of Admission and Financial Aid

Miami University Hamilton
1601 University Blvd.
Hamilton, OH 45011
Phone:
513-785-3111(Admission)
513-785-3123 (Financial Aid)
TTY accessible: 513-785-3211
www.ham.muohio.edu

Office of Enrollment Services
Miami University Middletown
4200 E. University Blvd.
Middletown, OH 45042
513-727-3216 (Admission)
513-727-3299 (Financial Aid)
866-426-4643 (toll-free)
TTY accessible: 513-727-3308
www.mid.muohio.edu

Fees and Expenses: Regional Campuses

Note: All fees and charges are subject to change. For current information on tuition and fees, visit the Bursar's website at *www.muohio.edu/bursar.*

Late Fees on Past Due Accounts

The Miami University Board of Trustees authorizes charging late fees equal to the then current prime rate plus 3 percent on charges that are not paid within 90 days of the due date. Full collection costs may also be charged if it becomes necessary to send a past due account to a third party collection agent.

Financial Obligations

The Board of Trustees authorizes the Bursar to restrict any services, including release of all academic records of a student or former student (e.g., diploma, transcripts), and registration for future semesters, until any past due amount owed to the university, including, but not limited to, fees, tuition, charges, fines, and loans due to the university, is paid in full. Past due means unpaid for 60 or more days after the due date, except that an account paid with a bad check is past due on the day the check is returned from the bank.

Refund of Charges

Questions about refunds should be directed to the Office of the Bursar. The date when you withdraw or drop is the date that you formally withdraw or drop at the regional campus Records and Registration Offices or of the Office of the Registrar on the Oxford campus.

Dropped Workshops

To receive a refund for a workshop, you must drop the workshop no later than 4:30 p.m. the last business day before the workshop begins.

Withdrawal from the University

If you **withdraw from the university or drop below full-time hours**, your fees will be refunded as follows.*

Withdrawal	Refund
Before 5 p.m. of the 5th day of the term	100 percent
Before 5 p.m. of the 8th day of the term	90 percent
Before 5 p.m. of the 20th day of the term	50 percent
Before 5 p.m. of the 30th day of the term	35 percent
Before 5 p.m. of the 40th day of the term	25 percent

After the 40th day of the term, you will not receive a refund.

If you **withdraw during a summer session,** your fees will be refunded as follows:*

Withdrawal	Refund
First 3 days of the term	100 percent
4th through 8th day of the term	50 percent
9th through 15th day of the term	25 percent

After the 15th day of the term, you will not receive a refund.

*When a student withdraws completely from the University during a semester, the Office of Student Financial Assistance is required to calculate, using a statutory pro rata schedule, the amount of federal Title IV financial aid the recipient has earned for the semester. This schedule is provided by the U.S. Department of Education. The amount of title IV financial aid earned is based on the length of time the student spent in academic attendance. The Office of the Registrar will inform the Office of Student Financial Assistance of the date the student notified Miami of the intent to withdraw. This date is used to calculate aid eligibility. If you are thinking about withdrawing, please contact the Office of Student Financial Assistance for information on how it will affect your financial aid.

Bachelor Degree Programs

Bachelor of Integrative Studies

Integrative learning is a process by which students connect knowledge and skills from multiple sources and experiences, apply knowledge and skills in varied settings, analyze diverse points of view, and understand issues contextually. The BIS is designed as a bachelor's completion degree that is particularly appropriate for students who have earned an associate degree or have done other college-level work and desire to obtain a four-year degree. Courses in the BIS degree program are offered on Miami's Hamilton and Middletown regional campuses as well as at the Voice of America Learning Center.

Special curriculum requirements:

- Students must earn a minimum of 45 credit hours prior to enrolling in BIS 201 or officially declaring the BIS major.
- Students must complete the entire Miami Plan for Liberal Education or Transfer Module.
- Students must complete 32 credit hours at the regional campuses.
- Students must complete at least hours at the 200-level and above, including at least 21 hours at the 300-level and above.

Program requirements:

Integrative seminars

All of these:
BIS 201 Introduction to Integrative Studies (3)
BIS 301 Integrative Studies Seminar II (3)
BIS 401 Senior Integrative Seminar (3)

21st-century literacies

Two of these (but no more than one BTE course):

BTE 109 Quantitative Business Methods - An Introduction (3)
BTE 282 Computer-Based Business Analysis (3)
CIT/CSE 262 Technology, Ethics, and Global Society (3)
ENG 215 Technical Writing (3) **or**
ENG 313 Introduction to Technical Writing (3)
GEO 241 Map Interpretation (3)
IMS 201 Information Studies in the Digital Age (3)
STA 261 Statistics (4)

Intercultural perspectives

Four semesters of any foreign language; or three of these; or three semesters of any foreign language plus any one of these; or two semesters of a foreign language plus any two of these:
ATH 206/LAS 208 Latin American Civilizations (3)
ATH 207 Civilization of the Middle East (3)
ATH 301 Intercultural Relations (3)
ATH 303 Native American Culture (4)
ATH 325 Identity, Race, Gender, Class (3)
ATH 388 Culture, Art, and Artifacts (3)
ATH 432/532 Social Identities (3)
BWS/CLS 210R Race and Ethnicity (3)
PSY 325 Psychology of Prejudice and Minority Experience (3)
BWS/SOC 348 Race and Ethnic Relations (3)
BWS/HST 386 Race in U.S. History (3)
BWS/GEO 455/555 Race, Urban Change, and Conflict in America (3)
BWS/SOC 448 The African-American Experience (3)
COM 436 Intercultural Communication (3)
EDP 209 Development, Learning & Diversity (3)
ENG 336 African American Writing, 1746-1877 (3)
ENG 337 African American Writing, 1878-1945 (3)
ENG 338 African American Writing, 1946-Present (3)
ENG 348 Ethnic American Literatures (3)
GEO 304 Latin American Development (4)
HST 371 Native American History to 1800 (3)
LAS 315 Latin American Diaspora (3)
POL 326 Comparative Ethnic Politics (3)
POL/WMS 346 Global Gender Politics (3)
POL 439 North American Politics: Unity and Diversity (3)
SOC/WMS 203 Sociology of Gender (3) **or**
any MPF World Cultures (IIIB) course that has not already been used to satisfy a Miami Plan Foundation requirement

Select and complete 15 hours in one of the following concentrations and 9 hours in another:

Applied Sociology

One of these:
SOC 151 Social Relations (4)
SOC 152 Social Relations and U.S. Cultures (4)

One of these:
SOC 201 Social Problems (4)
SOC 202 Social Deviance (4)

One of these:
ATH 411/511 Applied Anthropology (3)
COM 336 Advanced Interpersonal Communication (3)
PSY 221 Social Psychology (3)

This course:
SOC 262 Research Methods (4)

One of these:
SOC 440 Field Experience in Applied Sociology (1-16; maximum 16)
SOC 462 Applied Sociological Research (3)

Applied Kinesiology

Take one of the following:
KNH 184 Motor Skill Learning and Performance (3)
KNH 184L Motor Skill Learning and Performance Laboratory (1)
ZOO 161 Human Physiology (4)

Take one of the following:
KNH 293 Fitness and Conditioning (3)
KNH 294 Games and Sport (3)

Take one of the following:
COM 335 Public Discourse in Western Thought (3)
COM 339 Introduction to Organizational Communication (3)
FSW 281 Child Development in Diverse Families (4)
FSW/SOC 363 Sociology of Families (3)
PSY 231 Developmental Psychology (3)

Take both of the following:
KNH 392 Lifetime and Adventure Activities (3)
KNH 473 Children and Youth in Sport (3)

Contemporary American Experience

Both of these:
ENG 143 American Literature 1945-Present (3)
POL 142 American Politics and Diversity (4)

Two of these:
ATH 303 Native American Culture (4)
ATH 304 Contemporary Issues in Native American Life (3)
BWS/SOC 348 Race and Ethnic Relations (3)
ENG/WMS 232 American Women Writers (3)
ENG 246 Native American Literature (3)
ENG 247 Appalachian Literature (3)
ENG/BWS 338 African American Writing,1946-Present (3)
ENG/LAS 254 Latino/a Literature and the Americas (3)

One of these:
ENG 468 Gender and Genre (3)
ENG 490 Special Topics in Literary Study (3; maximum 6)

Cross Cultural Leadership

One of these:
ATH 175 Peoples of the World (3)
BTE 244 Introduction to Global Business (3)
HST 296 World History Since 1945 (3)
ITS 201 Introduction to International Studies (3)
POL 102 Politics and Global Issues (3)

One of these:
ATH 207 Civilization of the Middle East (3)
ATH 305 Peoples and Cultures of Latin America (3)
ATH 307 Peoples and Cultures of the Middle East (3)
BWS 209 Civilization of Africa (3)
HST 354 Modern Chinese History (3)
LAS 208 Latin American Civilizations (3)

All of these:
COM 436 Intercultural Communication (3)

Environmental Studies

One of these:
BOT 131 Plants, Humanity, and Environment (3)
BOT 171 Ecology of North America (3)
ZOO 121 Environmental Biology (3)

One of these:
BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)
ZOO 206 Evolutionary Biology (3)
ZOO 209 Fundamentals of Ecology (3)

One of these:
ENV 274 Introduction to Environmental Principles (3)
ENV 275 PrincipENV 275 Principles of Environmental Science (3)les of Environmental Science (3)
GEO 271 Human Dimensions of Natural Resource Conservation (3)

Two of these:
BOT/ZOO 351 Environmental Education: Focus on Natural History (4)
BOT/ZOO 467 Conservation Biology (3)
IES 431 Principles and Applications of Environmental Science (3)

Families, Gender, and Society

Three of these:
FSW 207 Serving and Supporting Children, Youth, and Families I (4)
FSW 261 Diverse Family Systems Across the Life Cycle (3)
FSW 281 Child Development in Diverse Families (4)
FSW 381 Perspectives in Parenting (3)
SOC 203 Sociology of Gender (3)
PSY 231 Developmental Psychology (3)
WMS 201 Introduction to Women's Studies (3)

One of these:
SOC 361/FSW 363 Sociology of Families (3)
PHL 312 Contemporary Moral Problems (4)

One of these:
EDT 422 Studies in Educational Issues (3)
FSW 481 Adolescent Development in Diverse Families (3)
FSW/SOC/WMS 451 Family Violence (3)
KNH 473 Children and Youth in Sport (3)
SOC/GTY/WMS 463 Gender and Aging (3)

Geographic Information Science

One of these:
CSE 163 Introduction to Computer Concepts and Programming (3)
MIS 281 Application Development Tools and Environment (3)

One of these:
CIT 214 Database Design and Development (3)
MIS 245 Database Systems and Data Warehousing (3)

All of these:
GEO 441 Geographic Information Systems (3)

GEO 442 Advanced Geographic Information Systems (3)
GEO 448 Techniques and Applications of Remote Sensing (3)

A student may also complete the GISci certificate program by taking one of the following (not required for the concentration):
GEO 340 Internship (1-20)
GEO 444 GIScience Techniques in Landscape Ecology (3)
GEO 447 Aerial Photo Interpretation (4)

Information Technology Strategy for Organizations

Two of these:
CIT 214 Database Design and Development (3)
CIT 276 Systems Analysis and Design (3)

One of these:
ENG 413 Writing Reports and Proposals (3)
ENT 316 Project Management (3)

Both of these:
CIT 358 Information Technology Assurance and Security (3)
CIT 448 Global and Strategic Issues in Information Technology (3)

Organizational Leadership

Two of these including at least one COM course:
BTE 282 Computer-Based Business Analysis (3)
COM 336 Advanced Interpersonal Communication (3)
COM 339 Introduction to Organizational Communication (3)
PSY 221 Social Psychology (3)

All of these:
BTE 301 Personal Organization Skills (3)
BTE 302 Financial Information for Managers (3)
BTE 401 Leadership Decision Skills (3)

Understanding Media and Visual Culture

This course:
COM 143 Introduction to Mass Communication (3)

One of these:
ART 183 Images of America (3)
FST 201 Introduction to Film Criticism and History (3)

One of these:
BWS 267 National Cinemas: African Film (3)
ENG/FST 220 Literature and Film (3; maximum 6)

One of these:
COM 354 Media and Society (3)
HST 379 U.S. Consumerism, 1890-Present (3)

One of these:
COM 437 Advocacy in Contemporary America (3)
COM 438 Political Communication (3)
COM 447 Mass Media Criticism (3)

Associate Degree Programs and Certificate Programs

Business Technology: Associate of Applied Business

For information, contact the Department of Business Technology at 106 University Hall (513-785-7706) on Hamilton campus or 109 Johnston Hall (513-727-3271) on Middletown campus.

Business technology includes programs in accounting technology, business software technology, business management technology, and marketing management technology. The business management technology program also has an option in real estate management technology. These programs are for those who want to enter business fields and those who want to improve their career opportunities. The Associate of Applied Business degree requires 66 semester hours.

Business technology also has certificate programs in accounting, banking, business information software, general supervision, small business management, and small office management. Certificate programs require 30 semester hours and prepare you for entry-level positions.

Associate's degree programs emphasize the development of practical business skills. As a part of the programs, although not required, paying co-op positions are available to provide valuable work experience. Graduates without extensive work experience typically start in entry-level, management-support positions and advance to more responsible positions with experience, motivation, and ability.

If you plan to pursue a bachelor's degree in business after completing the associate's degree, consult with your business technology adviser to ensure compatibility between the two degrees.

Degree Program Requirements

Each BTE degree consists of:

1. A set of core courses that is common to all BTE programs (total of 48 credit hours).
2. A set of four courses that is specifically required for the particular degree program (a total of 12 credit hours, except for the real estate program which requires eight credit hours of specific courses).
3. A set of career-related electives that is structured similarly for each program (a total of six credit hours, except for the real estate program which requires ten credit hours of electives).

Each BTE degree program consists of a total of 66 credit hours. Specific information on each of these three requirements follows.

Core Requirements for all BTE degree programs

All of these:
BTE 101 Introduction to Accounting (3)
BTE 105 Introduction to Marketing (3)
BTE 106 Introduction to Business and the Economy (3)
BTE 108 Introduction to Business Law (3)
BTE 109 Quantitative Business Methods (3)
BTE 111 Introduction to Management (3)
BTE 113 Management and Supervisory Skills (3)
BTE 181 Computers and Business (3)
BTE 203 Computerized Accounting (3)
BTE 282 Computer-Based Business Analysis (3)
COM 135 Introduction to Public Expression and Critical Inquiry (3) MPF IIB **or**
COM 136 Introduction to Interpersonal Communication (3) MPF IIC
ENG 111 College Composition (3) MPF I
ENG 215 Technical Writing (3)
MTH 101 Introduction to Elementary Algebra (3)
Miami Plan Foundation III, IV, or V courses (6)

In addition to the above listed core requirements, the four specific courses required for completion of each BTE program are:

Accounting Technology: Associate of Applied Business

All of these:
BTE 102 Introduction to Accounting II (3)
BTE 201 Federal Income Tax (3)
BTE 202 Payroll (3)
BTE 205 Corporate Accounting (3)

Business Management Technology: Associate of Applied Business

All of these:
BTE 241 Management Business Operations (3)
BTE 242 Management of Small Business Operations (3)
BTE 243 Management-Worker Relations
BTE 244 Introduction to Global Business (3)

Real Estate Management Technology Option

All of these:
BTE 231 Real Estate Principles and Practices (3)
BTE 233 Real Estate Law (3)
BTE 234 Real Estate Finance (1)
BTE 235 Real Estate Appraisal (1)

Marketing Management Technology: Associate of Applied Business

All of these:

BTE 261 Customer Service and Satisfaction (3)
BTE 266 Consumer Behavior (3)
BTE 267 Marketing Research (3)
BTE 268 New Product Development (3)

Business Software Technology: Associate of Applied Business

All of these:
BTE 281 Business Communication Software (3)
BTE 284 Technology for Knowledge Workers (3)
BTE 285 Business Information Management (3)
BTE 286 Business and the Internet (3)

BTE Approved Electives for all programs

Each BTE degree program, except real estate, requires six credit hours of career-related electives. The student can select from BTE courses not required for their major, as well as ECO 201 or ECO 202. Other electives are possible with the approval of the BTE faculty adviser.

The real estate degree program requires ten hours of electives. The student can select from: BTE courses not required for the real estate program; ECO 201 or ECO 202; or BTE 112. Other electives are possible with the approval of the BTE faculty adviser.

Business Technology: Certificate Programs

Certificate Program: Accounting
(30 semester hours)

This program is designed to prepare an individual for an entry-level position in the field of accounting, such as data entry clerk, accounts payable or receivable clerk, or payroll clerk. All the courses required for the certificate may be applied toward the Accounting Technology associate degree.

NOTE: Most students complete this program on a part-time basis. However, with the proper choice of accounting courses in the second semester, it is possible to complete this certificate in two semesters.

Core Program Requirements:
BTE 101 Introduction to Accounting (3)
BTE 105 Introduction to Marketing (3)
BTE 106 Introduction to Business & the Economy (3)
BTE 108 Introduction to Business Law (3)
BTE 111 Introduction to Management (3)
BTE 181 Computers & Business (3)

Specialized Courses:
BTE 102 Introduction to Accounting II (3)
BTE 202 Payroll (3)
BTE 203 Computerized Accounting (3)

Choose *one* of the following courses:
BTE 201 Federal Income Tax (3)
BTE 204 Cost Accounting (3)
BTE 205 Corporate Accounting (3)

Certificate Program: Banking
(30 semester hours)

This collaborative certificate program is designed to prepare an individual for a solid grounding in banking fundamentals for a career in banking. All courses required for this certificate program may be applied to the Associate of Applied Business associate degree.

Core Program Requirements:
AIB Principles of Banking (3)
AIB Law and Banking Principles (3)
AIB Money and Banking (3) **or**
BTE 103 Introduction to Finance (3)
AIB General Accounting **or**
BTE 101 Introduction to Accounting I (3)
AIB Economics for Bankers (3) **or**
BTE 106 Introduction to Business and the Economy (3)
BTE 105 Introduction to Marketing (3)
BTE 181 Computers and Business (3)
BTE 261 Customer Service and Sales (3)
COM 135 Public Expression and Critical Inquiry (3) **or**
COM 136 Introduction to Interpersonal Communication (3)
ENG 111 College Composition (3)
MTH 101 Introduction to Algebra (3) **or**
higher level math course

Note: A maximum of 15 AIB hours may be transferred to Miami.

Certificate Program: Business Information Software
(30 semester hours)

This certificate program is designed to prepare an individual for an entry-level position such as data entry or word processing clerk. All courses required for this certificate program may be applied toward the Computer-Based Management Technology associate degree.

Core Program Requirements
BTE 101 Introduction to Accounting I (3)
BTE 105 Introduction to Marketing (3)
BTE 106 Introduction to Business and the Economy (3)
BTE 108 Introduction to Business Law (3)
BTE 111 Introduction to Management (3)
BTE 181 Computers and Business (3)

Specialized courses:
BTE 281 Business Communication Software (3)

Choose *three* of the following courses:
BTE 203 Computerized Accounting (3)
BTE 282 Computer-Based Business Analysis (3)
BTE 284 Technology for Knowledge Workers (3)
BTE 286 Business and the Internet (3)

Certificate Program: General Supervision
(30 semester hours)

This certificate program is designed to prepare an individual for an entry-level position such as shift supervisor or a production supervisor. All courses required for this certificate program may be applied to the Management Technology Associate degree.

Core Program Requirements:
BTE 101 Introduction to Accounting I (3)
BTE 105 Introduction to Marketing (3)
BTE 106 Introduction to Business and the Economy (3)
BTE 108 Introduction to Business Law (3)
BTE 111 Introduction to Management (3)
BTE 181 Computers and Business (3)

Specialized courses:
BTE 112 Introduction to Human Resources Management (3)
BTE 113 Managerial and Supervisory Skills (3)
BTE 241 Management of Business Operations (3)
BTE 242 Management of Small Business Operations (3)

Certificate Program: Small Business Management
(30 semester hours)

This certificate program is designed to prepare an individual for an entry-level position assisting small business managers. Alternatively, this may be for individuals who might want to start their own small business. All courses required for this certificate program may be applied to the Marketing Management Technology associate degree.

Core Program Requirements:
BTE 101 Introduction to Accounting I (3)
BTE 105 Introduction to Marketing (3)
BTE 106 Introduction to Business and the Economy (3)
BTE 108 Introduction to Business Law (3)
BTE 111 Introduction to Management (3)
BTE 181 Computers and Business (3)

Specialized courses:
BTE 203 Computerized Accounting (3)
BTE 242 Management of Small Business Operations (3)

Choose *one* of the following courses:
BTE 261 Customer Service and Sales (3)
BTE 266 Customer Behavior (3)
BTE 267 Marketing Research (3)
BTE 268 New Product Development (3)

Certificate Program: Small Office Management
(30 semester hours)

This certificate program is designed to prepare an individual for an entry-level position such as office coordinator or assistant office manager. All courses required for this certificate program may be applied to the Office Management associate degree.

Core Program Requirements:
BTE 101 Introduction to Accounting I (3)
BTE 105 Introduction to Marketing (3)
BTE 106 Introduction to Business and the Economy (3)
BTE 108 Introduction to Business Law (3)
BTE 111 Introduction to Management (3)
BTE 181 Computers and Business (3)

Specialized courses:
BTE 281 Business Communication Software (3)

Choose *one* of the following courses:
BTE 113 Managerial and Supervisory Skills (3)
BTE 241 Management of Business Operations (3)
BTE 242 Small Business Management (3)
BTE 243 Management-Worker Relations (3)

Choose *two* of the following courses:
BTE 282 Computer-Based Business Analysis (3)
BTE 284 Technology for Knowledge Workers (3)
BTE 285 Business Information Management (3)
BTE 286 Business and the Internet (3)

Chemical Technology: Associate in Applied Science

(66-68 semester hours)

For information, contact the Department of Chemistry, Middletown campus (513-727-3372).

Chemical technology is the application of chemistry principles to everyday problems that confront industry, hospitals, and private and governmental laboratories. Chemical technicians are members of research and development teams that investigate new materials to determine their properties, reactions, and applications. They set up and run chemical reactions, test for quality and performance, act as troubleshooters, and operate sophisticated laboratory instrumentation. Chemical technicians find careers in industrial laboratories, manufacturing plants, agricultural and clinical facilities, and energy production sites.

This program provides graduates with a sound foundation in both applied and theoretical chemistry and valuable laboratory experiences that are common to a wide variety of industrial and clinical laboratories.

Program Requirements

CHM 115 Foundations of the Chemical Process Industry (2)
CHM 141, 142 College Chemistry (3, 3) **or**
  CHM 137, 142 College Chemistry (4, 3)
CHM 144, 145 College Chemistry Laboratory (2, 2)
CHM 215 Chemical Technology II (2)
CHM 218 Chemical Technology II Laboratory (3)
CHM 241, 242 Organic Chemistry (3, 3)
CHM 244, 245 Organic Chemistry Laboratory (2, 2)
CHM 363 Analytical Chemistry (3)
CHM 364 Analytical Chemistry Laboratory (2)
CIT 154 Personal Computer Concepts and Applications (3) **or**
  CSE 163 Introduction to Computer Concepts and Programming (3) **or**
  CSE 151 Computers, Computer Science, and Society (3)
COM 135 Public Expression and Critical Inquiry (3) **or**
  COM 231 Small Group Communication (3)
ENG 111 English Composition and Literature (3)
ENG 215 Technical Writing (3)
ENT 151 Engineering Materials (3) **or**
  ENT 192 Circuit Analysis I (3) **or**
  PHY 171, 183 College Physics (3, 1) **or**
  chemical engineering course **or**
  environmental science course **or**
  biotechnology course
MBI 161 Elementary Medical Microbiology (4) **or**
  MBI 201 General Microbiology (4)
MTH 101 Elementary Algebra (3)
MTH 102 Intermediate Algebra (3)
MTH 125 Precalculus (5)
STA 261 Statistics (4)

Computer and Information Technology: Associate in Applied Science

For more information, contact the CIT Department Office on the Hamilton campus at 301 Mosler Hall (513-785-3132) or on the Middletown campus at 109 Johnston Hall (513-727-3271).

Computer and information technology focuses on the development and support of computing systems. With the proliferation of computers into every aspect of business and industry there is a documented need for technically skilled professionals who can design computer programs and systems, produce and manipulate digital media, support users, and provide administration and maintenance of computer networks.

The Computer and Information Technology Associate Degree allows you to choose one of four concentrations that are essential to contemporary computing: networking, software development and support, IT support, or visual media technology. The *networking concentration* prepares students to design, install, support, and maintain security for computer networks, maintain hardware and software, and analyze and troubleshoot problems. The *software development and support concentration* prepares students to design, create, and maintain software in a variety of current programming languages, to understand and use operating systems, and to support application programs. The *IT support concentration* prepares students to meet the needs of today's employers who are looking for help desk staff familiar with standard support methodologies, have strong problem solving skills, and good interpersonal communication skills. The *visual media technology concentration* combines the study of art and technology to allow students to produce and manipulate visual media using technology for computer-based communication, marketing, education, and entertainment. All concentrations lead to an Associate Degree in Applied Science with a major in computer and information technology.

Program Requirements

Required Core Courses - take all of these (51 credit hours)
ENG 111 College Composition (3) (MPF I)
ENG 112 Composition and Literature (3) (MPF I)
COM 135 Public Expression and Critical Rhetoric (3) (MPF IIB)
CIT 154 Personal Computer Concepts and Applications (3)
CIT 157 Foundations of Information Technology I (3)
CIT 158 Foundations of Information Technology II (3)
CIT 173 Multimedia Fundamentals (3)
CIT 214 Database Design and Development (3)
CIT 262 Technology, Ethics, and Global Society (3)
CIT 268 Introduction to Human-Computer Interaction (3)
CIT 273 Web Application Development (3)
CIT 276 Systems Analysis and Design (3)
CSE 163 Introduction to Computer Concepts and Programming (3) (MPF V)
MGT 111 Introduction to Business (3)
MTH 102 Intermediate Algebra (3)
Miami Plan U.S. Cultures Elective (3) (MPF IIIA)
Miami Plan World Cultures Elective (3) (MPF IIIB)

Complete ONE of the following concentrations

Please consult course descriptions to determine prerequisites for each course.

Software Development and Support concentration (15 credit hours)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)
CIT 263 Advanced Topics in Visual BASIC (3) **or**
  CSE 153 Introduction to C/C++ Programming (3)
ECO 201 Principles of Microeconomics (3)
Miami Plan IIA or IV elective (3)

Networking concentration (15 credit hours)
CSE 174 Fundamentals of Programming and Problem Solving (3)
ENT 294 Local Area Networks (3) **or**
  ENT 298 Data Communications (3) **or**
  CSE 283 Data Communication and Networks (3)
ECO 201 Principles of Microeconomics (3)
Miami Plan IIA or IV elective (3)

IT Support concentration (13 credit hours)
BTE 281 Business Communication Software (3)
CIT 263 Advanced Topics in Visual BASIC (3)
COM 136 Introduction to Interpersonal Communication (3)

Miami Plan IIA or IV elective (3)
Free elective (1)

Visual Media Technology concentration (15 credit hours)
ART 111 Visual Fundamentals (3)
ART 121 Drawing I (3)
ART 187 History of Western Art: Prehistoric-Gothic (3) **or**
ART 188 History of Western Art: Renaissance - Modern (3)
ART 255 Introduction to Digital Imaging (3)
COM 136 Introduction to Interpersonal Communication (3)

Computer Technology: Associate in Applied Science

(65 semester hours)

For more information contact the regional campus coordinator for computing programs: on the Hamilton campus at 301 Mosler Hall (513-785-3132) or on the Middletown campus at 109 Johnston Hall (513-727-3271).

The computer technology major (continuation option), is designed for students who wish to earn an associate degree at the regional campuses and ultimately obtain a bachelor's degree in one of four computing programs that can be completed at the Oxford campus. It allows students to complete an Associate Degree in Applied Science by taking approximately half of the courses for a bachelor's degree in one of the following majors: Computer Science, Software Engineering, Engineering Management - Systems Analysis or Computer Engineering. After completing the associate degree, students may relocate to the Oxford campus and continue with junior standing. Students who wish to find employment after completing this associate degree are prepared for positions such as computer programmers, system support personnel and other technical computing positions.

Program Requirements

First year
EAS 101 Computing Engineering and Society (1)

Miami Plan Foundation I (6)
Recommended:
ENG 111 College Composition (3) (MPF I)
ENG 112 Composition and Literature (3) (MPF I)
CSE 174 Fundamentals of Programming and Problem Solving (3)
CSE 271 Object-Oriented Programming (3)
MTH 151 Calculus I (5) (MPF V)

Miami Plan Physical Science
PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB)
PHY 182, 184 The Physical World/Lab (4, 1) (MPF IVB)
Miami Plan elective (3) *

Second year
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB) **or**
COM 231 Small Group Communication (3)
ECO 201 Principles of Economics (3) (MPF IIC)
CIT/CSE 262 Technology, Ethics, and Global Society (3) (MPF)

Miami Plan electives (9) *

* Miami Plan elective courses are intended to represent any other course requirements as needed to fulfill Miami's Liberal Education requirements and graduation requirements and should be selected consistent with current requirements, as indicated in each student's DAR.

Note: If COM 231 is taken instead of COM 135, students may need an additional Miami Plan foundation course in MPF II. Students should check their DAR.

One of the following sets of courses (depending on major):

Computer Science (12 hours)
MTH 231 Elements of Discrete Mathematics (3)

Select three of the following:
CSE 201 Introduction to Software Engineering (3) **
CSE 274 Data Abstraction and Data Structures (3)
CSE/ECE 278 Computer Architecture (3) **
CSE 283 Data Communications and Networks (3)

Software Engineering (12 hours)
CSE 274 Data Abstraction and Data Structures (3)
EAS 102 Problem Solving and Design (3)
MTH 231 Elements of Discrete Mathematics (3)

Select one of the following:
CSE 201 Introduction to Software Engineering (3) **
CSE 211 Software Construction (3)
CSE/ECE 278 Computer Architecture (3) **

Engineering Management - Systems Analysis specialty (12 hours)
CSE 274 Data Abstraction and Data Structures (3) **or**
CSE 201 Introduction to Software Engineering (3) **
EAS 102 Problem Solving and Design (3)
MTH 231 Elements of Discrete Mathematics (3)

Select one of the following:
ACC 221 Introduction to Financial Accounting (3)
MGT 291 Introduction to Management & Leadership (3)
MKT 291 Principles of Marketing (3)

Computer Engineering (12 hours)
EAS 102 Problem Solving and Design (3)
CSE/ECE 278 Computer Architecture (3) **
6 hours required for the Computer Engineering major (with advisor approval)

** Courses offered only at the Oxford Campus.

Restriction on courses that can be taken Credit/No Credit: All computer science and software engineering courses (CSE), all required mathematics, and the courses that comprise the student's year of science (for this major, all physics courses) must be taken for a grade.

Criminal Justice: Associate in Applied Science

(67-68 semester hours)

Criminal Justice is the study of law enforcement, courts, and corrections. Graduates are employed as law enforcement officers; probation and parole officers; corrections officers; and may work within private security agencies. Courses required within this program may be applied to bachelor degree programs in Criminal Justice, Criminology, Sociology, Psychology, or Political Science.

For more information, contact the criminal justice coordinator on the Hamilton or Middletown campuses.

Program Requirements

First Year
All of these:
CJS 101 Intro to the Criminal Justice System (3)
CJS 125 Law and the Courts (3)
COM 135 Public Expression and Critical Inquiry (3)
ENG 111 College Composition (3)
IDS 159 Strength Through Cultural Diversity (3)
MBI 111 Microorganisms and Human Disease (3)
MBI 131 Community Health Perspectives (2)
POL 142 American Politics and Diversity (4) **or**
BWS 151 Intro to Black World Studies (4)
PSY 111 Intro to Psychology (4)
SOC 151 Social Relations (4)

Second Year
All of these:
CJS 211 Law Enforcement (4)
CJS 220 Field Experience (3)
CJS 231 Law and Individual Rights (4)
CJS 232 Criminal Defense and Adjudication (4)
CJS 256 Police Organization, Administration, and Management (4)
CJS 271 Criminal Behavior (3) **or**
CJS 272 Forensic Evidence (3) **or**
CJS 276 Homeland Security and Critical Inc. Management (3)
CJS 282 Seminar in Criminal Justice (3)
ENG 215 Technical Writing (3)
SOC 201 Social Problems (4) **or**
SOC 202 Social Deviance (4)

Related Elective
One of these:
CSE 151 Computers, Computer Science, and Society (3)
ENG 112 Composition and Literature (3)
STA 261 Statistics (4)
Fine Arts elective (3)
Physical Science elective (3-4)

Engineering Technology: Associate in Applied Science

For information, contact the Department of Engineering Technology at 207 Phelps Hall (513-785-3130) on Hamilton campus or 109 Johnston Hall (513-727-3241) on Middletown campus. Both campuses have an open admission policy.

This department offers associate degree programs in electrical and computer engineering technology and mechanical engineering technology and baccalaureate completion electro-mechanical technology and mechanical engineering technology degree programs. Certificate programs in computer-aided design/computer-aided manufacturing, and computer hardware technology are also available. All programs are offered on the regional campuses in Hamilton and Middletown. The baccalaureate program, described in the School of Engineering and Applied Science chapter, is for students who have earned an associate degree.

Co-op is available on an alternating or parallel semester basis. Students either alternate semesters between work and studies or work while taking classes. For a co-op curriculum schedule, contact the Co-op/Placement Office at 123 Rentschler Hall (513-785-3113) on the Hamilton campus or at 1 Johnston Hall (513-727-3431) on the Middletown campus.

Department Educational Objectives

We consider program educational objectives as the general characteristics our graduates demonstrate to the workplace, graduate school, the military, or their endeavors after they leave Miami. We typically measure these characteristics initially at graduation by asking graduates if they feel that they have achieved these characteristics and then periodically thereafter through employer surveys, letters from graduates, advisory council, graduate school accomplishments, and surveys of graduates who have been out for awhile. These characteristics should become most evident within the first few years after graduation.

The Engineering Technology Department's graduates are able to:

- apply math and physics principles to the solution of engineering technical problems.
- use applied skills to identify, evaluate, and solve complex technical problems.
- use engineering computer software to facilitate engineering problem solving.
- function effectively in team-oriented activities.
- demonstrate the knowledge of expected standards of ethical and professional conduct.
- verbally communicate ideas.
- prepare well-written technical reports.

In addition, our graduates will have the necessary fundamentals to pursue life-long learning.

Program-Specific Educational Objectives

Electrical and Computer Engineering Technology (A.A.S.) - The ECET program produces graduates who:

- analyze digital and analog electrical and electronic circuits, identify problem areas, and maintain these systems.
- function effectively as electrical and computer engineering technicians in state and regional industries.

Electro-Mechanical Engineering Technology (B.S. Completion Program) - The EMET program produces graduates who:

- possess the ability to apply theoretical knowledge to solve engineering technology problems associated with instrumentation and control systems.
- are knowledgeable of modern applications in process control systems.

Mechanical Engineering Technology (A.A.S. & B.S.) - The MET program produces graduates who:

- are able to analyze and design complex mechanical components and systems
- are able to set up experimental testing procedures and selectively utilize data to reinforce engineering concepts.
- have a basic understanding of modern manufacturing methods used to facilitate the production of consumer products
- are able to effectively and efficiently manage engineering projects (B.S. only).

Electrical and Computer Engineering Technology: Associate in Applied Science

(66 semester hours)

This program, accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), includes course work in both electrical and electronic fields. It provides depth and breadth in the fundamentals as well as in the advanced technology found in modern electrical/electronic and computing systems. Hands-on labs are used to reinforce concepts taught in the classroom. Students develop the ability to analyze, synthesize, and solve technical problems. Topics of study include AC and DC circuit analysis, analog and digital electronics, programmable logic controllers, microprocessors, personal computer architecture, local area networks (LAN), and C++ and assembly language programming.

Graduates work as electronic technicians, electrical maintenance technicians, computer maintenance and network technicians, engineering assistants, computer and PLC programmers, and many other related paraprofessional positions. Graduates may also choose to continue their education toward a Bachelor of Applied Science degree.

Program Requirements

First year
CSE 153 Introduction to C/C++ Programming (3)
ENG 111 College Composition (3) (MPF I) (3)
ENT 135 Computer-Aided Drafting (3)
ENT 137 Introduction to Engineering Technology (1)
ENT 192, 193 Circuit Analysis I, II (3, 3)
ENT 196 Electronics (3)
MTH 125 Precalculus (5)
PHY 171, 172 College Physics (3,3) **or**
PHY 181,182 The Physical World (4, 4) (MPF IV)
PHY 183, 184 College Physics Laboratory (1, 1)

Second year
COM 135 Public Expression and Critical Inquiry (3) (MPF IIB) **or**
COM 136 Introduction to Interpersonal Communication (3) (MPF IIC)
ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**
ECO 202 Principles of Macroeconomics (3) (MPF IIC)
ENG 215 Technical Writing (3) **or**
ENG 112 Composition and Literature (3) (MPF I)
ENT 291 Industrial Electronics (3)
ENT 293 Digital Switching (3)
ENT 294 Local Area Networks (3)
ENT 295 Microprocessor Technology I (3)
ENT 296 Programmable Controllers (3)
ENT 297 Microprocessor Technology II (3)
MTH 151 Calculus I (5) (MPF V)
Miami Plan United States cultures or world cultures (3) (MPF IIIA or IIIB)

Mechanical Engineering Technology: Associate in Applied Science

(66 semester hours)

This program, accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), emphasizes courses in computer-aided drafting (CAD), computer-aided engineering analysis and design, computer-aided manufacturing (CAM), computer numerical control programming (CNC), and engineering mechanics. Courses include laboratory experiences working with modern materials-testing equipment; microcomputer-based engineering analysis software; CAD/CAM hardware and software; microprocessor-controlled robots; and a variety of engineering support software. Students develop the ability to analyze, synthesize, and solve technical problems.

Graduates work as CAD operators, CAD/CAM operators, CNC programmers, quality assurance technicians, laboratory test technicians, engineering assistants, and many other related paraprofessional positions. Graduates may also choose to continue their education toward a Bachelor of Science in Applied Science.

Program Requirements

First year
CSE 163 Introduction to Computer Concepts and Programming (MPF V) (3)
ENG 111 College Composition (MPF I) (3)
ENT 135 Computer-Aided Drafting (3)
ENT 137 Introduction to Engineering Technology (1)
ENT 151 Engineering Materials (3)
ENT 152 Computer-Aided Manufacturing I (3)
ENT 271 Mechanics I: Statics (3)
MTH 125 Precalculus (5)
PHY 171, 172 College Physics (3,3)
PHY 183, 184 College Physics Laboratory (1,1)

Second year
COM 135 Public Expression and Critical Inquiry (MPF IIB) (3) **or** COM 136 Introduction to Interpersonal Communication (MPF IIC) (3)
ECO 201 Principles of Microeconomics (MPF IIC) (3)
ENG 215 Technical Writing (3)
ENT 192 Circuit Analysis I (3)
ENT 235 Computer-Aided Design (3)
ENT 252 Computer-Aided Manufacturing II (3)
ENT 272 Mechanics II: Strength of Materials (3)
ENT 278 Mechanics III: Analysis of Machine Components (3)
MTH 151 Calculus I (MPF V) (5)
Miami Plan United States cultures or world cultures (MPF IIIA or IIIB) (3)

Engineering Technology: Certificate Programs

Two certificate programs are available in engineering technology. All courses taken in the certificate programs will apply toward the requirements of a related associate's degree.

Certificate Program: Computer-Aided Drafting/Computer-Aided Manufacturing (CAD/CAM) (30 semester hours)

This certificate program is designed to prepare you for an entry-level position in computer-aided drafting/computer-aided manufacturing. All courses required for this certificate program may be applied toward the associate degree program in mechanical engineering technology.

Program Requirements

General support courses
ENG 111 College Composition (MPF I) (3)
MTH 125 Precalculus (5)
PHY 171 College Physics (3)
PHY 183 Physics Lab (1)

Technical courses
CSE 153 C/C++ Programming (3) or
CSE 163 Introduction to Computer Concepts and Programming (MPF V) (3)
ENT 135 Computer-Aided Drafting (3)
ENT 152 Computer-Aided Manufacturing I (3)
ENT 235 Computer-Aided Design (3)
ENT 252 Computer-Aided Manufacturing II (3)
ENT 271 Mechanics I: Statics (3)

Certificate Program: Computer Hardware Technology
(32 semester hours)

This certificate program is designed to prepare you for an entry-level position in computer repair and maintenance. All courses required for this certificate program may be applied toward the associate's degree program in electrical and computer engineering technology.

Program Requirements

General support courses
ENG 111 College Composition (MPF I) (3)
ENG 215 Technical Writing (3) or
ENG 112 Composition and Literature (MPF I) (3)
MTH 125 Precalculus (5)
Miami Plan Foundation elective (3)

Technical courses
CSE 153 C/C++ Programming (3)
ENT 192 Circuit Analysis I (3)
ENT 196 Electronics (3)
ENT 293 Digital Switching (3)
ENT 295 Microprocessor Technology I (3)
ENT 297 Microprocessor Technology II (3)

General Studies: Associate in Arts

(64 semester hours)

This program is for students who want to complete their education in two years or temporarily stop before completing a four-year program. It is available to any student enrolled at any campus of Miami University who has not completed the requirements for a Bachelor's degree.

You may select any 12 of the required 64 semester hours from your division of major, as described below:

Program Requirements

4. Sixty-four semester hours
5. Miami Plan Foundation requirements
6. Twelve semester hours in addition to those above in one of these areas of emphasis:
   - Humanities
   - Natural science*
   - Social science
   - Business
   - Education
   - Engineering and applied science
   - Fine arts
7. Minimum 2.00 cumulative g.p.a.
8. Thirty-two semester hours from Oxford, Middletown, or Hamilton campuses
9. Six of the final 10 semester hours from Miami
10. No more than five semester hours of KNH 110-170

* Students with natural science emphasis cannot apply MTH 101 and MTH 102 to this degree.

Prekindergarten Education: Associate in Applied Science

(64 semester hours)

For information, contact the Middletown Coordinator for Prekindergarten at 513-727-3289 or the Hamilton Office of Academic Advising at 513-785-3129.

This program prepares students to provide education and caring for children up to five years of age who are not yet in kindergarten. Graduates may be employed in public, corporate, or private care centers, preschools, or Head Start facilities, either as teachers or in administration.

Successful completion of the Prekindergarten Program meets the Ohio Department of Education requirements for the Initial Five-Year Professional Licensure in Prekindergarten Education. The degree can be applied to the Bachelor of Integrative Studies and a majority of the required hours may be applied to the Bachelor of Science degree in Early Childhood Education, if the student meets the admission requirements and is admitted into an appropriate cohort.

Program Requirements

First year
ART 308E The Art Experience for Early Childhood (3) *
EDL 204 Sociocultural Studies in Education (3) (MPF IIB) *
EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC) *
EDT 273 Prekindergarten Integrated Curriculum I (3)
EDT 274 Prekindergarten Integrated Curriculum II (3)
ENG 111 College Composition (3) *
FSW 281 Child Development in Diverse Families (4) * **
KNH 281 Early Childhood Physical Education (2) * **or**
KNH 297 Children's Exercise and Fitness (3)
MTH 115 Mathematics for Early Childhood Teachers (4) *
MUS 266 Basic Music Skills and Teaching Techniques for the Early Childhood Teacher (3) *

Second year
EDP 256E Psychology of Learners with Exceptionalities (3) *
EDT 181 Physical Science (4) (MPF IVB, LAB) * **or**
EDT 182 Physical Science (4) (MPF IVB, LAB) * **or**
any other physical science course meeting early childhood physical science requirement
EDT 246E Foundations of Reading, Language, and Literacy (3) * **
EDT 272E Introduction to Early Childhood Education (3) *
FSW 261 Diverse Families Across the Life Span (3) *
FSW 283 Introduction to Child Care Administration (3)
FSW 293 Field Placement: Infant/Toddler Setting (3) †
FSW 294 Field Placement: Preschool Setting (3) †
FSW 382 Infant and Toddler Caregiving and Supervision (3)
NSG/KNH 232 Health Issues for Children and Families (2) * **
Elective (3)

* Course can be applied to Bachelor of Science Degree in Early Childhood Education

** Course prerequisite is EDP 201.

† Prerequisites for Field Placement include: at least a C- EDT 273 and 274, EDP 201 and FSW 281. Pre/co-requisites: EDT 246 and EDT 272. Additional pre-/co-requisite for FSW 293: FSW 382.

Technical Study: Associate of Technical Study

(64 semester hours)

For information, contact the departments of Engineering Technology, Computer Information Technology, or Business Technology. The Department of Engineering Technology is at 301 Mosler Hall (513-785-3132) on the Hamilton campus and at 109 Johnston Hall (513-727-3244) on the Middletown campus. The Department of Business Technology is at 106 University Hall (513-785-7706) on the Hamilton campus and at 205B Thesken Hall (513-727-3241) on Middletown campus.

This technically-oriented program is offered through the combined disciplines of business technology, computer information technology, and engineering technology. Students work with a faculty adviser to develop an interdisciplinary plan of study with an area of concentration and a well-rounded program. Through this program, you have the flexibility to tailor an associate degree to your specific needs.

Program Requirements

Nontechnical courses (15 semester hours)*
All of these:
COM 135 Public Expression and Critical Inquiry (MPF IIB) (3) **or**
COM 136 Introduction to Interpersonal Communication (MPF IIC) (3) **or**
COM 231 Small Group Communication (3)
ENG 111 College Composition (MPF I) (3)
ENG 215 Technical Writing (3)

Six semester hours from these:
ENG 112 Composition and Literature (MPF I) (3)
Miami Plan fine arts, humanities, or social science course (MPF IIA, IIB, or IIC) (3)
Miami Plan U.S. Cultures or World Cultures course (MPF IIIA or IIIB) (3)

Basic program support courses (17 semester hours)*
Math, science, and computing courses (at least three hours in each category)

Technical subject areas (32 semester hours)
Approved course work in engineering technology and/or computer technology/computer and information technology and/or business technology approved by the Associate of Technical Studies Review Committee as constituting a well defined, coherent program leading to marketable, technical job skills.

* Nontechnical and basic program support courses must include at least 12 semester hours of the Miami Plan Foundation (MPF) in four of the five MPF areas.

Beginning a Bachelor's Degree Program at a Regional Campus

Students may take course work at Miami Hamilton, Miami Middletown, and Voice of America Learning Center to begin a bachelor's degree in most majors. Degrees can be completed in NSG, ENT, or BIS departments on the regional campuses, in other departments at the Oxford campus, or at other four-year institutions. Students may relocate (take the majority of credit hours in Oxford) as a matriculated Miami University student with at least 20 hours of earned Miami University college-level course work (not including developmental 00_classes), at least a 2.00 cumulative grade point average, and an acceptable conduct record. These requirements will be verified as of the start of the approved relocation term. Students with exceptions to these requirements must contact the Oxford divisional office.

For example, the first year of a bachelor degree program in psychology can be completed at Hamilton and/or Middletown campus as follows:

Psychology (A.B.)

First semester
ENG 111 College Composition (3) (MPF I) **or**
ENG 113 Advanced College Composition (3) (MP)
PSY 111 Introduction to Psychology (4) (MP)
Humanities or fine arts (3) (MP)
Natural science (preferably a biological science) (3) (MP)
Foreign language (3-5) CAS-A

Second semester
ENG 112 Composition and Literature (3) (MP)
STA 261 Statistics (4) (MP) CAS-E
Humanities or fine arts (3) (MP)
Natural science (3-4) (MP)
Foreign language (3-5) CAS-A

Some programs have special admission requirements or limited entry. It is important to check your major's requirements with your adviser.

For more information on continuing toward a bachelor's degree, contact the Office of Admission and Financial Aid at either the Hamilton campus or the Middletown campus.

The Graduate School

Office of the Associate Provost and Dean
102 Roudebush Hall
Phone: 513-529-3734
http://www.miami.muohio.edu/graduate-studies/

General Information

Miami offers graduate study leading to master's, Specialist in Education, and doctoral degrees. Certificate programs are also available.

Information on admission, graduate assistantships, courses, and requirements is online (http://www.miami.muohio.edu/graduate-studies/).

Departments Offering Graduate Study

Below are the divisions and departments with the graduate degrees and certificate programs offered. The Institute of Environmental Sciences is an interdisciplinary program.

Ph.D. program applicants may apply for a special interdisciplinary degree, subject to the approval of the admitting Ph.D. department and the Graduate School. Please contact the Director of Graduate Study in the appropriate department for more information.

All departments offering graduate study have information available about requirements and courses.

College of Arts and Science

Botany: Master of Arts, Master of Science, Master of Arts in Teaching (biological sciences), Doctor of Philosophy, certificate in molecular biology

Chemistry and Biochemistry: Master of Science, Doctor of Philosophy, certificate in molecular biology

Communication: Master of Arts

Comparative Religion: Master of Arts

Economics: See Farmer School of Business.

English: Master of Arts, Master of Arts in Teaching, Master of Technical and Scientific Communication, Doctor of Philosophy

Environmental Sciences: Master of Environmental Science

French: Master of Arts

Geography: Master of Arts

Geology: Master of Arts, Master of Science, Doctor of Philosophy

History: Master of Arts, Doctor of Philosophy

Mathematics and Statistics: Master of Arts, Master of Science, Master of Arts in Teaching (for licensed teachers), Master of Science in Statistics

Microbiology: Master of Science, Master of Arts in Teaching (biological sciences), Doctor of Philosophy, certificate in molecular biology

Philosophy: Master of Arts

Physics: Master of Science

Political Science: Master of Arts, Master of Arts in Teaching, Doctor of Philosophy

Psychology: Master of Arts (as required step in Ph.D. program only); Doctor of Philosophy (in clinical psychology, social psychology or brain and cognitive science). For school psychology, see the School of Education and Allied Professions.

Sociology and Gerontology: Master of Gerontological Studies, Doctor of Philosophy in Social Gerontology, certificate in gerontology

Spanish and Portuguese: Master of Arts

Speech Pathology and Audiology: Master of Arts, Master of Science

Women's Studies Program: Certificate

Zoology: Master of Arts, Master of Arts in Teaching (biological sciences), Master of Science, Doctor of Philosophy, ZOO or EEEB certificate in molecular biology

The Farmer School of Business

Accountancy: Master of Accountancy

Economics: Master of Arts

Business Administration: Master of Business Administration

School of Education, Health, and Society

Educational Leadership: Master of Education, Master of Science, Doctor of Philosophy, Doctor of Education

Educational Psychology: Master of Science, Master of Education (instructional design and technology), Master of Arts (instructional design and technology), Specialist in Education (school psychology)

Family Studies and Social Work: Master of Science

Kinesiology and Health: Master of Science in Exercise and Health Studies, Master of Science in Sport Studies

Music, education: See School of Fine Arts.

Teacher Education: Master of Education, Master of Arts in Teaching

School of Engineering and Applied Science

Computer Science and Software Engineering: Master of Computer Science

Chemical and Paper Engineering: Master of Science

School of Fine Arts

Architecture and Interior Design: Master of Architecture

Art, studio: Master of Fine Arts

Music, education: Master of Music

Music, performance: Master of Music

Theatre: Master of Arts

Graduate Certificate Programs

These specializations, which enhance a graduate degree, are available to students who have been admitted to the Graduate School and have met program prerequisites.

Assessment and Development

College Teaching

Computer Science

Ecology

Molecular Biology

Professional Development: Assessment and Evaluation

Women's Studies

Admission for Graduate Students

Graduate School
102 Roudebush Hall
Phone: 513-529-3734
http://www.miami.muohio.edu/graduate-studies/

About Admission

To be admitted to a graduate program at Miami, you must have earned a baccalaureate degree from an accredited institution. You must be fully admitted to the Graduate School to be eligible to receive graduate credit.

Graduate School admission standards are the minimum standards for all graduate programs. Individual departments may have higher standards and additional requirements. You are expected to be fully cognizant of your department's requirements.

You may apply for admission online at:

http://www.miami.muohio.edu/graduate-studies/

The Graduate School's contact information is:

Graduate School
102 Roudebush Hall
Miami University
Oxford, Ohio 45056
Phone: 513-529-3734
Fax: 513-529-3762
E-mail: *gradschool@muohio.edu*
Web: ***www.muohio.edu/graduate***

Admission information for international students appears later in this chapter.

To Apply for Admission

Submit to the Graduate School:

- Your completed application with the required nonrefundable application fee. Your application will not be processed until the application fee is received.
- *Two* official transcripts from the college or university that awarded you the baccalaureate degree. Transcripts are not required from Miami University graduates.
- *Two* official transcripts from each college or university in which post-baccalaureate study was undertaken, if any.

Submit to your major department:

- Additional materials required by your department. These may include letters of recommendation, statement of goals, test scores, or a portfolio. Contact your major department for information.

Submit to the Student Health Service:

- Your completed Miami University Graduate Student Medical History form. You will not be allowed to register until your completed form is returned to the Student Health Service.
- Students under 30 years of age are required to provide proof of immunizations.

Admission Tests

Each department offering a graduate program determines the tests required for admission, if any. The following tests may be required by specific departments.

Graduate Management Admission Test (GMAT)

This is required for all applicants for graduate study in the Farmer School of Business. Information can be obtained from:

The Farmer School of Business
1038 Farmer School of Business
Phone: 513-529-6643

or

Educational Testing Service
Box 969
Princeton, NJ 08540
http://www.gmac.com/gmac/thegmat

Graduate Record Examination (GRE)

Information and online registration is available at ***www.gre.org***. An information booklet can be obtained from:

Student Counseling Service
Health Services Center
Phone: 513-529-4634

or

Graduate School
102 Roudebush Hall
Phone: 513-529-3734

or

Graduate Record Examination
Educational Testing Service
P.O. Box 6000
Princeton, NJ 08541-6000
Phone: 609-771-7670

Miller Analogies Test (MAT)
Most college and university counseling centers have MAT information. Information concerning times and places for the MAT can be obtained from:

Student Counseling Service
Health Services Center
Phone: 513-529-4634

http://www.units.muohio.edu/saf/scs

Grade Point Average

For admission purposes, the computation of grade point averages is determined by the institution that awarded the baccalaureate or graduate degree. An exception to this applies to incomplete and failing grades—Miami University will count these as zero points. Plus and minus grades that are clearly explained on transcripts will be counted in the grade point average.

Regular Standing

For admission to the Graduate School as a degree candidate with regular standing, you must have earned a grade point average (gpa) of at least 2.75 (4.00 scale) at the institution awarding your bachelor's degree or a 3.00 gpa for the last four semesters (or equivalent) of study for your bachelor's degree. You must have at least a 3.00 gpa for all graduate work attempted. Undergraduate course work taken after the completion of your bachelor's degree will not be considered in determining your grade point average.

Conditional Standing

Admission to the Graduate School with conditional standing (master's degree programs only) is possible if you do not meet requirements for regular standing but you can provide evidence of promise for success in graduate study. If you must satisfy departmental prerequisites, have academic deficiencies, or have earned a bachelor's degree from a non-accredited institution, you may be admitted with conditional standing, even if you have met minimum requirements for admission to regular standing.

Requests for admission with conditional standing are considered by the dean of the Graduate School. Such requests must have the support of the academic department in which you seek admission. Evidence in support supplied by the applicant and the department may include graduate admission test scores, reference to successful professional experience, statements of academic prowess, etc. A student admitted with conditional standing cannot hold an assistantship.

If you are admitted with conditional standing, you must achieve a cumulative grade point average of at least 3.00 in the first 12 hours of graduate courses taken for grades. Grades earned in undergraduate courses do not apply to this required grade point average. The probationary period begins on the date of admission with conditional standing. Students who do not satisfy the requirements of conditional standing are denied further registration in the Graduate School. Students who meet these requirements are re-admitted with regular standing.

International Student Admission

Non-immigrant students from other countries are encouraged to apply for admission to graduate study.

Information and application forms for prospective international graduate students are available online at:

http://www.miami.muohio.edu/graduate/admission_international.cfm

and from:

Graduate School
102 Roudebush Hall
Miami University
Oxford, OH 45056 USA
Phone: 513-529-3734
Fax: 513-529-3762
E-mail: *intlapp@muohio.edu*

Required Documents

Submit the following to the Graduate School:

- A completed application form with the required nonrefundable application fee. Your application cannot be processed until the application fee is received.
- Two official transcripts or certified true copies of complete academic records showing all courses completed and grades received at each postsecondary school attended. All academic records not originally issued in English by the school must be submitted in the original language with a **certified literal** (not interpretive) English translation. Academic records must list all courses taken, the grades received in these courses, and the academic term(s) and year(s) when these courses were taken.
- Certification that an undergraduate degree has been or is about to be awarded. Evidence that a university degree at least equivalent to an American bachelor's degree has been or is about to be earned must be submitted.
- Proof of English language ability sufficient to undertake a full course of graduate study. See the following section "English Language Requirements."
- A completed International Graduate Student Financial Statement form with supporting documentation from a bank or other financial institution.
- A completed Miami University Medical Form for International Graduate Students.
- Additional documents may be required by your department. Please correspond directly with your major department to request information about specific departmental admission requirements.

English Language Requirements

If you are not from a country where English is the native language or if you will not have earned a university degree from an academic institution in a country where English is the native language, proof of English language proficiency is also required. In most cases, applicants will need to present satisfactory scores on the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). Information concerning these examinations and the location of test centers can be obtained online at *www.toefl.org* for the TOEFL or at *www.ielts.org* for the IELTS. For information, about minimal TOEFL and IELTS score requirements and acceptable alternatives to the TOEFL or IELTS, visit *www.muohio.edu/graduate/language.cfm*.

Please note that a graduate assistant or teaching associate is not assigned significant instructional responsibilities (including laboratory supervision) in the first year of study (i.e., you can assist a faculty member, senior graduate assistant, or teaching associate in managing a class or laboratory section, but you cannot be given lead or principal responsibility for a class, discussion, or laboratory section). Any exception to this policy must have prior approval of the department chair or program director, the divisional dean, and the dean of the Graduate School.

After you are admitted and on campus (prior to class registration), you must take an examination in the use of English administered by Miami's English department. If this test indicates that you need additional instruction in English, you must register for ENG 119 (specially designated for graduate students) in your first term of study, which may require that you reduce your academic course load until it is determined that your English proficiency is adequate to pursue a full course of study.

In addition, if you are assigned instructional responsibilities (including laboratory supervision) as a teaching associate or graduate assistant, you are required by Ohio state law to demonstrate English-speaking proficiency. After arrival on campus, you may be required to take a test that assesses your proficiency in spoken English.

Non-degree Status

If you would like to take graduate-level courses, but do not intend to pursue a graduate degree, you can apply for admission with "continuing non-degree graduate status." After you are admitted, you can earn an unlimited number of graduate hours within an indefinite period of time.

To apply for admission, submit to the Graduate School:

- Completed admission application form;
- Nonrefundable application fee;
- Transcript of the highest degree earned from an accredited institution (not required if your highest degree was awarded by Miami University).

If you are admitted as a non-degree student, you will not be able to enroll in certain courses if the department or program has limited enrollment; students who have been admitted to a degree-granting program have first priority. Check with the department about enrollment restrictions. If you have been denied regular or conditional admission to a degree program, you can enroll in courses in that department as a non-degree student only if the

department grants permission. If you take courses as a non-degree student after you have been denied admission as a degree student, these courses cannot be applied to a future degree program.

If you are a non-degree student (and have not previously applied for degree admission) and desire admission to a degree program, you must apply for admission and meet Graduate School and departmental standards for admission. No more than eight of the most recent graduate hours earned with non-degree status can be applied toward a graduate degree and then only with the approval of the department. All eight hours are subject to normal time limitations for credit toward a degree.

Transient Status

If you are pursuing a graduate degree at another institution and intend to complete your program there, you can apply for admission with "transient status." Transient status is valid for one semester only, but may be renewed with reapplication.

To apply for admission: (1) obtain a transient status application from the Graduate School, and (2) complete your part, then forward the entire form to the dean of your graduate school with a request for the dean to complete it and send it directly to the Graduate School of Miami University.

After you are admitted with transient status, you can enroll in courses if you have fulfilled departmental and divisional requirements for the program and prerequisites for the courses. Admission does not make you a candidate for a graduate degree.

Minority Student Assistance

The Diversity Enhancement Program (DEP) is designed to encourage diverse students to gain advanced degrees at Miami University. This program provides financial, cultural, and social support to graduate students of color and underrepresented populations. Financial support is in the form of graduate assistantships. Graduate assistantships carry stipends that vary in amount by department, remission of instructional fee and out-of-state tuition, half of the general fees and summer scholarships.

The DEP program can also help a prospective student visit campus to meet with faculty and students. Lodging can be arranged. For more information, contact the director of diversity enhancement in the Graduate School, 513-529-3734.

Degree and Certificate Requirements

Graduate School
102 Roudebush Hall
Phone: 513-529-3734
www.muohio.edu/graduate

Master's Programs: General Requirements

Since each department or division may have special requirements for any program it offers, you must be aware of those requirements as well as the requirements of the Graduate School. Specific program requirements are listed in the Fields of Study chapter.

A minimum of 30 semester hours is required for all master's degrees, but several programs require more. Many departments offer both thesis-type and course-type master's programs, with the student's objectives and abilities determining which type of program they may pursue. Both types allow between six to 12 hours of research or research-and-thesis credit. Some departments or divisions may require candidates to perform research, teaching, or equivalent services as a part of their degree requirement.

Examinations

Note: To be eligible to take the final examination for a master's degree, a graduate student must have a 3.00 grade point average or better and may not have grades of incomplete.

A preliminary examination is optional, but a final degree examination is required in all graduate programs except for the Master of Accountancy and the Master of Business Administration. The final examination, written, oral, or both, must be given in the semester in which the candidate completes the work for the degree, and no later in the semester than 10 working days before graduation. In a thesis-type program, the thesis must be approved before the final examination is administered.

The typical examination committee for either a thesis or non-thesis program is comprised of at least three members of the graduate faculty; two represent the student's major department and the third member represents the minor department (if applicable), the major department, or the Graduate School. The director of the thesis for a thesis-type program must have Level A standing of the graduate faculty.

If the committee is larger than three, there can be no more than one dissenting vote to pass the examination.

Students who fail the first final examination may be given a second examination to be taken no earlier than the next semester or summer session. No third attempt is permitted.

Thesis

The department determines whether students will follow a thesis-type or course-type program. Thesis credit ranges between six to 12 hours for a 30-hour program. A department may increase the thesis hour credit to more than 12 in order to equal the number of hours the program exceeds 30.

Format and style used by leading professional journals or style sheets in each discipline or professional field or A Manual for Writers by Kate L. Turabian serves as a guide for the thesis.

As of August 2001, all students submitting a thesis or dissertation must deposit it electronically at OhioLINK. Before beginning to write, you should obtain a copy of the *Guide for Writing Thesis and Dissertations* for instructions in procedures and mechanics from the Graduate School's website or from the Graduate Student Association's Blackboard site on myMiami. **Your thesis must be electronically deposited at http://www.ohiolink.edu/etd/submit/** at least 10 working days before commencement. The only paper submitted to the Graduate School by the student will be the original signature/title page on plain white copy paper.

Residence Requirement

At least one-half of the minimum semester hours required for the master's degree must be earned on the Oxford campus. For the Master of Education degree, residence credits may be earned on Middletown and/or Hamilton campus or at other off-campus centers approved for residence credit.

Transfer Credit

Up to one-third of the semester hours required for the degree may be transferred toward the master's degree. Courses cannot be older than five years at the time the master's degree is awarded. Contact the Graduate School for details regarding transfer of graduate credit.

Course Level Requirement

A master's degree student must present at least 12 semester hours earned at 600-level or above. A student seeking the M.Ed., the M.A. in an education field, or the M.A.T. in an education field, however, must complete at least 15 semester hours at 600-level or above.

Time Limit

Work for a master's degree must be completed within five calendar years (e.g., students beginning master's programs in 2009 must complete their programs by December 2014). Partial credit may be given for graduate courses completed at Miami University that are between five and 10 years old, but such credit must be gained by way of petition to the appropriate divisional petitions committee.

Second Master's Degree

With the approval of the department, a student who has been admitted to a second master's degree program may apply a maximum of 10 semester credits from a first master's degree earned at an accredited graduate school toward the second master's degree, provided the work is not more than five years old at the time the second master's degree is awarded.

If a thesis was presented for the first degree, it may not be used for the second degree. The same degree title may be earned in two different areas of study.

Combined Bachelors and Masters Degree: General Requirements

The following guidelines and requirements apply when seeking to earn a combined Bachelor's and Master's degree at Miami:

1. Students are eligible to apply to the Graduate School for the combined bachelor's/master's program during the first semester of their junior year (or 64-80 hours earned) and can begin taking graduate courses during the second semester of the junior year (or after 80 hours earned).
2. Half of the departmental hours required for the major must be completed.
3. Students must have a minimum overall GPA of 3.25. Individual departments may have a higher standard.
4. A maximum of six (6) hours can be double counted for the bachelor's and the master's degree, but the full number of hours required for the master's degree must be taken. Students must complete all University, Divisional, and Departmental requirements for the Bachelor's degree with the caveat that six hours of graduate credit can be double counted with Departmental permission.
5. Students will remain classified as undergraduates until they have completed 128 hours; at that time the Graduate School will reclassify them as graduate students, if they have maintained an overall GPA of 3.25 and have earned a 3.00 average in all graduate courses. If they have not maintained eligibility to continue, they will be dismissed from the combined program and will complete their undergraduate degree.
6. Students in the combined program are eligible to hold a graduate assistantship or graduate grant-in-aid upon being classified as graduate students.
7. Students may receive both degrees simultaneously. If they complete the combined bachelor's/master's program within six years of their initial registration as full-time first year student, they will receive a transcript notation to that effect.
8. Students who choose to receive the bachelor's degree in a term prior to finishing the requirements for the graduate degree lose the ability to double count six hours towards both degrees.
9. Only full-time students are eligible for this program.

Doctoral Programs: General Requirements

The Doctor of Philosophy (Ph.D.) is awarded in the departments of botany, chemistry and biochemistry, education, educational leadership, English, geology, gerontology, history, microbiology, political science, psychology, and zoology. The Doctor of Education (Ed.D.) is awarded in the Department of Educational Leadership. Students entering these doctoral programs must fulfill the following requirements, as well as those established by the department(s) involved.

Students with a 3.00 grade point average for their baccalaureate degree may be admitted directly to a doctoral program if recommended by the department.

The degree Doctor of Philosophy or Doctor of Education will not be granted to a member of the Miami University faculty or staff who holds rank above instructor.

Effective July 1, 1970, a recipient of a Miami doctorate is ineligible for employment as a faculty member at Miami, unless that person has been employed elsewhere for at least three years and has gained significant achievement since receiving the Miami degree. Those who received a doctorate or were already enrolled in a doctoral program before this date are exempt from this regulation.

Ph.D. Requirements

A doctoral program normally requires three to five years post-baccalaureate work and generally includes three stages.

First stage ends when you receive a master's degree or earn the equivalent credit (30 semester hours) with a minimum grade point average of 3.00.

Second stage includes fulfillment of departmental requirements and successful completion of your preliminary comprehensive examination.

Third stage comprises research and seminars, preparation of your dissertation, and your final examination.

Program Requirements

Each program has unique characteristics and may have standards higher than the minimum established by the Graduate Council. It is your responsibility to be informed of the standards and requirements by consulting with the graduate adviser or department chair.

Credit Hour Requirements

Admission to the third stage requires a minimum of 30 hours of post-master's credit. A minimum of 16 semester hours and a maximum of 60 hours may be given for the dissertation at the discretion of the department.

A minimum 3.00 grade point average is required for work on the doctorate.

A minimum of 60 semester hours beyond the master's degree (or its equivalent) is required. Forty-eight hours must be earned at Miami University.

Transfer Credit

Up to 12 hours of graduate credit may be transferred toward the doctoral degree. Courses may not be more than seven years old at the time the comprehensive examination is taken. Contact the Graduate School for details regarding transfer of graduate credit.

Residence Requirement

A residence period of two consecutive semesters of full-time post-master's registration on the Oxford campus is required for a doctoral degree. Registration for 12 graduate hours during summer terms is considered a semester for residency purposes. (The residency requirement may be different for the Ed.D. See "Ed.D. Requirements" at the end of this section. Students in the Student Affairs in Higher Education Ph.D. program develop their individual residency plan with their advisor.)

Full-time study for the residence requirement is defined as follows:

- Students with graduate appointments must meet registration requirements of their award for two consecutive semesters.
- Students without graduate appointments must register for at least 12 graduate credit hours for each semester of the academic year.

Language Requirement

Each department determines its own foreign language requirements, if any.

The language requirement is fulfilled in one of three ways: passing an examination on material within the field (conducted by the appropriate language department at Miami); passing the national Graduate School Foreign Language Test; or successfully completing the sequence of intensive reading courses in French, German, Latin, or Spanish that are specifically oriented to graduate students.

Preliminary (Comprehensive) Examination

Note: To be eligible to take the preliminary (comprehensive) examination, a graduate student must have a 3.00 grade point average or better and may not have grades of incomplete.

To be admitted formally to candidacy for the doctorate degree, you must pass a preliminary examination that qualifies you for further work and research.

You must pass this examination within seven years after completing your first doctoral-level course. It is a two-part examination: written and oral. You must take the oral part within four weeks after taking the written part.

Your examination committee is made up of at least four members of the Graduate Faculty including your dissertation adviser. The adviser must be in the same department as the doctoral student. A fifth graduate faculty member also votes and participates in the oral part of your comprehensive examination. At least one member of the committee must be from outside your major department. The committee must be approved by the Graduate School dean. Four of the five committee members must approve in order for you to pass the examination. If your committee is larger than five, there can be no more than one dissenting vote for in order for you to pass the examination.

If a student does not pass the examination, the committee may grant permission for a second examination under conditions stipulated by the committee. A second examination may be taken no earlier than the next semester or summer session.

Dissertation Prospectus

After passing the comprehensive examination and being admitted to candidacy, present the prospectus for your dissertation to the committee (in many cases the comprehensive examining committee) who will conduct your final examination later.

Dissertation

The Doctor of Philosophy is primarily a research degree. You must demonstrate your capacity for independent research by writing an original dissertation on a topic within your major field of study. The subject of your dissertation must be reported to the doctoral committee at the time of your preliminary examination.

A minimum of 16 hours is required for dissertation research, and a maximum of 60 hours may be applied toward the semester hour requirement for the degree.

Before beginning to write, you should obtain instructions for mechanics and procedures from the Graduate School. Generally, format and style used by leading professional journals in your field or *A Manual for Writers* by Kate L. Turabian serves as a guide. Check your writing format early with the Graduate School to avoid any delay. A final format check and approval by the Graduate School are required before your dissertation is accepted and electronically deposited.

As of August 2001, all students submitting a dissertation must deposit it electronically. Before beginning to write, you should obtain instructions for mechanics and procedures from the Graduate School. **Your thesis must be electronically deposited at www.ohiolink.edu/edt/submit** at least 10 working days before commencement. The only paper submitted to the Graduate School will be the original signature/title page on plain white paper.

Doctoral dissertations are microfilmed by University Microfilms, Ann Arbor, Michigan. When you submit your dissertation and abstract, you sign an agreement to give University Microfilms the right to make and sell microcopies. (Microfilmed dissertations may be copyrighted.) Your abstract will be published in *Dissertation Abstracts* issued monthly by University Microfilms.

Final Examination

Note: To be eligible to take the final examination for the doctoral degree, a graduate student must have a 3.00 grade point average or better and may not have grades of incomplete.

A final examination to evaluate your dissertation work and competence in your field is conducted by an examining committee consisting of at least four members of the Graduate Faculty (your dissertation director, two readers, and a member from outside your department). Three of the four members must approve your dissertation and final examination for you to be awarded the degree. If your committee is larger than four, there can be no more than one dissenting vote on your examination. All members have responsibility for the conduct of the examination and must also certify the fairness of the examination. All Graduate Faculty are eligible to participate in the examination.

The final examination must be passed and the dissertation must be deposited in King Library no later than five calendar years after your admission to candidacy. The deadline to deposit the dissertation is at least 10 working days before the commencement when your degree is awarded. Any exception may involve further examinations or course requirements.

Note: Students entering graduate programs August 2001 or later must submit their thesis or dissertation electronically. More information is available from the Graduate School, 513-529-3734, or online at ***www.muohio.edu/graduate***.

Special Committee Doctoral Degree (Interdisciplinary Degree)

The Graduate School can authorize a special committee to supervise a doctoral program for a student whose needs cannot be met within an established program.

You must be accepted into a doctoral-degree-granting department, establish at least one semester of full-time graduate work, and then submit a proposal for a special committee degree. You may be admitted directly or enter the program later. At least 12 semester hours must be remaining in your program when your special committee degree proposal is submitted.

You should check with the Graduate School and faculty with whom you are interested in working. Special committee members can be from non-doctoral departments and must have Level A standing of the Graduate Faculty. Your course of study may vary from normal departmental requirements as long as it is approved within the established procedures of the department.

Your one-page proposal should include:

10. Names of two faculty members, in addition to your major professor(s), who will supervise your course of study.
11. Explanation of why your needs cannot be met within existing programs and why the special committee degree program is needed.
12. Proposed course of study.
13. Your committee's recommendation for an examination procedure that assures adequate in-depth coverage.

After your proposal is endorsed by your three committee members and department, it is submitted to the Graduate School.

Ed.D. Requirements

The Ed.D.is available in the Department of Educational Leadership.

Although the general requirements listed for the Doctor of Philosophy apply to the Doctor of Education, the latter is specifically designed for students professionally oriented to a career in the field of education. Advanced research courses, therefore, may vary from those pursued in other fields, and the program may be considered more appropriate to those especially interested in public education.

Residency requirements for the Ed.D. may consist of three consecutive summer sessions of two terms each, with a normal registration for six credits per term on the Oxford campus, and continuous registration in each intervening fall and spring semester until the degree is earned. You must contact the chair of the Department of Educational Leadership to arrange for this plan of residency.

Certificate Programs: General Requirements

The Graduate School offers certificate programs in ecology, gerontology, molecular biology, software development, and women's studies. These programs, described in the Fields of Study chapter, are available to students who have been admitted to the Graduate School and have met program prerequisites.

Specialist in Education: General Requirements

The Specialist in Education (Ed.S.) degree is designed for those with bachelor's degrees who want to prepare for a career in school psychology and for those who are certified school psychologists who wish to upgrade their training.

Information about the Ed.S. in school psychology is in the educational psychology field of study section.

Graduate Fields of Study

Accountancy- Master of Accountancy

For information, contact:
Academic Program Coordinator
Department of Accountancy
3088A Farmer School of Business (513-529-3372)
www.fsb.muohio.edu/macc

The department's mission is to have a nationally recognized degree program that provides students with the lifelong ability to seek and acquire accounting and business knowledge and translate it into responsible action in a competitive environment.

This program provides an in-depth understanding of selected areas of accounting and business and the knowledge and skills to prepare graduates for long-term success in an accounting-related career. This program qualifies graduates to sit for the CPA examination in Ohio and most states that require 150 semester hours.

Master's programs in business administration (MBA) and in economics (M.A.) are also offered in the Farmer School of Business. These two programs are listed alphabetically.

Admission Requirements

Applicants are admitted on the basis of proven intellectual capability, maturity, and promise of success demonstrated by the undergraduate academic record, results of the Graduate Management Admission Test (GMAT), letters of recommendation, personal statement, and professional, community, and extracurricular activities.

The GMAT score report should be sent directly to Miami University. The application, fee, and official copies of your transcript should be sent to the Graduate School. A resume, personal statement, and letters of recommendation should be sent directly to the academic program coordinator. Complete details of the admission process can be found on the MAcc website.

Financial Assistance

In addition to graduate assistantships described elsewhere in this Bulletin, the department awards one fellowship and several scholarships on the basis of merit and/or demonstrated financial need. For information, contact the academic program coordinator.

Program Requirements
(30 semester hours)

Prerequisite courses for this program are equivalent to the requirements for a Bachelor of Science in Business with a major in accountancy, including financial accounting research and financial statement auditing.

Architecture- Master of Architecture

For information, contact:
Director of Graduate Studies
Department of Architecture and Interior Design
Alumni Hall, Room 100A (513) 529-7026
http://arts.muohio.edu/architecture-interior-design/programs/graduate-studies

Research and Support Facilities

Alumni Hall

The Department of Architecture and Interior Design is located in Alumni Hall, which for many years served as the University's main library. The central portion, which dates from 1909, was conceived as the most lavish building on campus when it was commissioned and remains an impressive space today. The rotunda is a focus for departmental ceremonies, receptions and the annual Graduate Program Dinner. Since its restoration and 30,000 square foot addition designed by the renowned architectural firm Hammond, Beeby & Babka of Chicago was completed in 1997, Alumni Hall has served as a focal point for campus-wide activities. Almost all of the Department's activities are housed within Alumni Hall, including individual studio space for each student in the program as well as classrooms, seminar spaces, faculty and administrative offices, the Department woodshop, digital fabrication lab, the Alumni Hall Cage Gallery, and the W.W. Wertz Art and Architecture Library. All department classes, except the larger lecture sessions, are taught in Alumni Hall.

The Department of Architecture and Interior Design supports a mobile computing environment with wireless Internet access provided to studio, lecture, seminar spaces, and the library. Students purchase/provide their own equipment that can support the software recommended by the digital media faculty. The Department, in cooperation with the School of Engineering and Applied Science, supports CNC/ Rapid Prototyping equipment and processes.

Divisional Visual Resources Collection: Art Building

The Miami University School of Fine Arts maintains a divisional collection of visual resources located in the Art Building. The collection contains approximately 14,000 digital images, with an additional 16,000 architectural images available through ARTStor. There are also 200,000 slides available, including approximately 80,000 architectural images, as well as a video and DVD collection with architecture department lectures and other architecture subjects.

The Hiestand Gallery: Hiestand Hall

The School of Fine Arts maintains a divisional art gallery in Hiestand Hall. The Gallery supports faculty and student exhibits, traveling exhibitions, and other exhibit and performance events sponsored by the Departments of Art, Architecture & Interior Design, Theatre, and Music.

Admission Requirements

Applications are encouraged from students with degrees in other academic disciplines, as well as those with degrees equivalent to the four-year pre-professional degree Bachelor of Arts in Architecture.

Applicants must first satisfy the entrance requirements of the Graduate School. In addition, the department requires the following:

1. A carefully-crafted personal statement describing how a Master of Architecture degree from Miami University will help you explore and meet your educational goals and professional aspirations and how you can contribute to the teaching and learning culture of the graduate program in architecture.
2. Three letters of recommendation with accompanying recommendation forms written by individuals who are able to assess your academic and professional potential. At least two letters should be sent from academic sources and one letter can be from a professional source. Recommendations should be sent directly to the Director of Architecture Graduate Studies by the student's referee.
3. A portfolio of creative work is required for all M.Arch. I, M.Arch. II, and M.Arch. III program applicants.A curriculum vitae describing your academic and professional activity and accomplishments,

scholarship, research, and personal creative activity should accompany the aforementioned requirements.

4. The Graduate Record Examination (GRE) is required in its entirety and will be considered in addition to the mandatory application materials listed above.

Applications and all supporting information must be received by **January 15**. Send *university application* forms to the Graduate School. Departmental admissions information (listed above) should be sent directly to the Director of Architecture Graduate Studies at the address below. Acceptance is based on careful review by the Graduate School as well as by the Graduate Admissions Committee of the Department of Architecture and Interior Design. Decisions regarding acceptance and graduate assistantship awards are usually made by early March.

Departmental application materials should be sent to:
Director of Graduate Studies in Architecture
Alumni Hall, Room 100A
Department of Architecture and Interior Design
Miami University
Oxford, OH 45056

For additional information on curriculum and the application process, including the recommendation form and portfolio requirements, please see our Web site at *http://arts.muohio.edu/architecture-interior-design/admissions/graduate-admissions.*

Program Requirements

Programs vary according to undergraduate preparation. The M.Arch. II is a two-year program entailing 60-64 credit hours of graduate level courses (64 hours are required if Digital Media Requirements ARC 615 and ARC 616 are not met prior to admission). This program is designed for students with the equivalent of Miami's Bachelor of Arts in Architecture.

Students who do not have an architectural degree or equivalent can expect to complete a Master of Architecture degree in three and one-half years. The M.Arch. III program includes 47 credit hours of preparatory courses in addition to the final 63 credit hours for a total of 110 credit hours. After the preparatory courses in both semesters of your first year, you must undergo review from the graduate faculty to continue.

For students with five-year Bachelor of Architecture degrees, a post-professional program with a minimum of 36 credit hours of graduate work is required (M.Arch. I). This program normally requires at least three semesters, including two semesters of studio, and may involve directed research and cross-disciplinary or interdepartmental courses and projects.

National Architectural Accrediting Board (NAAB) Statement

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

The Department of Architecture and Interior Design at Miami University offers the following NAAB-accredited degree programs: Master of Architecture I (first-professional Bachelor of Architecture degree + 36 graduate credits); Master of Architecture II (pre-professional degree + 62 graduate credits) and Master of Architecture III (non-pre-professional degree + 110 graduate credits). Next accreditation visit for all programs: 2015.

Transfer Credits

Students who have completed graduate course work in other architectural graduate programs may petition to receive credit for that work toward a Master of Architecture degree. Decisions about transfer credit, based on the applicant's previous record, are made by the graduate committee. Transfer credit is granted for work equivalent in content and rigor to Miami University's offerings and may not, by Graduate School stipulation, exceed one-third of the credit hours of graduate course work required by the Department of Architecture and Interior Design.

Length of Program

The program outlines, below, represent the minimum length of each curriculum track. Typically, course waivers granted by the director of graduate studies (in consultation with graduate faculty) do not reduce total credit hour requirements of a program. Under certain circumstances, students entering the M.Arch. III program with strong backgrounds in some design disciplines may petition to have their initial studio (ARC 581) waived. The nature of the studio sequence, however, normally prevents any reduction of semesters in residence in the M.Arch. I, M.Arch. II, and M.Arch. III programs.

These program tracks can be extended only upon consultation with the graduate director and the Graduate School. Candidates with insufficient backgrounds in core curricular areas, as determined by the director and graduate committee, will be required to take additional course work to attain the requisite curricular background.

Thesis

You must produce a written research thesis document and a design thesis project with guidance and approval of a committee of graduate faculty from the Department and the University. The thesis must meet standards, format, and procedures established by the Department of Architecture and Interior Design.

Program Outlines

The Master of Architecture (M.Arch.) is accredited by the National Architectural Accrediting Board (NAAB). Miami's graduate program in architecture accepts students from three different preparation backgrounds. Students from pre-professional undergraduate architecture programs who wish to complete their professional education and hold a Bachelor of Arts in Architecture or a Bachelor of Science in Architecture apply to the M.Arch. II Program. Those who have earned an undergraduate degree in fields other than architecture apply to the M.Arch. III Program. Additionally, students who have already completed an accredited Bachelor of Architecture (B.Arch.) degree at an accredited North American college or university, and who wish to pursue a specialized field of research, may apply to the M.Arch. I Program.

Two-Year Professional Program in Architecture (M. Arch. II)
(60 credit hours with pre-professional design degree, 64 credit hours required if Digital Media Requirements, ARC 615 and ARC 616, are not met prior to admission.)

The two-year professional program is designed for students with a pre-professional degree that is the equivalent of a Bachelor of Arts in Architecture. Normally, a Bachelor of Arts or a Bachelor of Science in Architecture is considered an equivalent pre-professional degree. Other undergraduate degree programs, in which the students have completed four years of architectural design studio and requisite course work in architectural history

and architectural technology, may also satisfy partial requirements for admission to the M.Arch. II Program.

Students admitted to the two-year program must complete 60-64 graduate credit hours, normally completed in two academic years. Students must take up to 64 credit hours if they have not taken coursework in graphic media equivalent to ARC 615 and ARC 616. All students in the M.Arch. II Program are expected to produce a written thesis document and a design thesis project. Timely completion of the program largely depends on the effort devoted to thesis research and site investigation during the summer prior to the thesis year. Holders of graduate assistantships may receive tuition, a stipend, and academic credit for summer independent study. Students who have previously completed coursework that is the equivalent to required courses in the M.Arch. II sequence may be given credit for that work toward completion of the Master of Architecture degree from Miami. While students may petition to have these course requirements waived, the total credit hours required for graduation will not be reduced. Miami credit and waivers are approved only by the Department's graduate faculty in consultation with the Director of Architecture Graduate Studies. The following proposal outlines the typical sequence of required courses and electives for the two-year term.

First year (33-37 credit hours)

Summer I
ARC 615 Graphic Media III[4] (2)

Summer III
ARC 616 Graphic Media IV[4] (2)

Fall
A 500 level Departmental Graduate Seminar (3) *
* See Advisor to determine eligible course options
ARC 513 Environmental Systems I[3] (3)
ARC 601 Design Studio[1] (6)
ARC 634 Architecture Theory and Research (3)

Spring
ARC 511 Structural Design[3] (3)
ARC 514 Environmental Systems II (3)
ARC 602 Architectural Design Studio[1,2] (6)
ARC 636 Design and Research Methods (3)

Summer I - III
ARC 700 Directed Thesis Research (3)
Second year (Thesis Year) (27 credit hours)

Second year (Thesis Year) (27 credit hours)

Fall
A 500 level Departmental Graduate Seminar (3)*
* See Advisor to determine eligible course options
ARC 512 Structural Design[3] (3)
ARC 541 Professional Practice[3] (3)
ARC 701 Pre-Thesis Design Studio (6)

Spring
ARC 551 Modern Architecture (3)[1]
ARC 702 Thesis Design Studio (6)
A Graduate Level elective (3)

[1] ARC 517 Architectural Materials, ARC 518 Construction Methods, and ARC 621-622 History and Philosophy of Environmental Design (or their equivalent) are the normal prerequisites for ARC 601-602.

[2] ARC 513 Environmental Systems (or the equivalent) is a prerequisite for ARC 602.

[3] ARC 511, ARC 512, ARC 513, ARC 514, and ARC 541 can be waived and elective coursework substituted if the student demonstrates that course requirements have been met in their previous curriculum.

[4] ARC 615 and ARC 616 will be waived, with no elective substitution requirement, if the student demonstrates that course requirements have been met in their previous curriculum.

Three-and-One-Half Year Professional Program in Architecture (M. Arch. III)

(110 credit hour track for students with degrees in other disciplines)

The three-and-one-half year professional program is designed for students whose undergraduate degrees are outside the field of architecture. The program was established for two reasons. First, M.Arch. III students are generally a diverse group of individuals who bring perspective and an intellectual maturity that can benefit the program. Second, these students often return to school after significant work experience and, when combined with their prior education, can significantly enrich the teaching and learning culture of the graduate program and the Department at large.

Students admitted to the M.Arch. III graduate program must complete 110 graduate credit hours that are normally completed in three academic years and three summer terms. All students in the M.Arch.III program are expected to produce a written thesis document and a thesis design project. Timely completion of the program depends on the effort devoted to thesis research and site investigation during the summer prior to the thesis year. Holders of graduate assistantships may receive tuition, a stipend, and academic credit for summer independent study. Students who have previously completed coursework that is the equivalent to that required in the M.Arch. III sequence may be given credit for that work toward completion of the Master of Architecture degree. While students may petition to have these course requirements waived, the credit hours required to fulfill degree requirements will not be reduced. Miami credit and waivers are approved only by the Department's graduate faculty in consultation with the Director of Architecture Graduate Studies.

The first year of the 110 credit-hour-track is a preparatory year during which students receive intensive education in the fundamental principles of architectural design, graphic communication and visual analysis, architectural history and theory, and architectural technology. For M.Arch. III graduate students to continue in the program, design work from the preparatory year must be reviewed and approved by a committee of graduate faculty at the conclusion of the spring semester.

The following curriculum outlines the typical sequence of required courses and electives for the three-and-one-half-year term.

First (Preparatory) year (47 credit hours)

Summer III
ARC 581 Design Studio (6)
ARC 613 Graphic Media I (2)

Fall
ARC 517 Architectural Materials (3)
ARC 582 Design Studio (6)
ARC 614 Graphic Media II (2)
ARC 621 History and Philosophy of Environmental Design (3)

Spring
ARC 518 Construction Methods (3)
ARC 535 Theory and History of Landscape Architecture (3)
ARC 583 Design Studio (6)
ARC 622 History and Philosophy of Environmental Design (3)

Summer I
ARC 584 Design Studio (6)
ARC 615 Graphic Media III (2)

Summer III
ARC 616 Graphic Media IV (2)

Professional Program (63 credit hours)

Second Year (33 credit hours)

Fall
ARC 510 Statics and Strength of Materials (3)
ARC 513 Environmental Control Systems I (3)
ARC 601 Design Studio (6)
ARC 634 Architectural Theory and Research (3)

Spring
ARC 511 Structural Design (3)
ARC 514 Environmental Control Systems II (3)
ARC 602 Design Studio (6)
ARC 636 Design and Research Methods (3)

Summer I - III
ARC 700 Directed Thesis Research (3)

Third Year (Thesis Year) (30 credit hours)

Fall
A 500 Level Departmental Graduate Seminar* (3)
*See Advisor to determine eligible course options
ARC 512 Structural Design (3)
ARC 541 Professional Practice (3)
ARC 701 Pre-Thesis Design Studio (6)

Spring
A 500 Level Departmental Graduate Seminar* (3)
*See Advisor to determine eligible course options
ARC 551 Modern Architecture (3)[1]
ARC 702 Thesis Design Studio (6)
A Graduate Level Elective (3)

[1]Students in the M.Arch. III program will take ARC 551 Modern Architecture. Any waiver of this requirement will depend on the student's undergraduate background in modern architecture.

Post Professional Master of Architecture (M. Arch. I)
(36 credit hour track)

The one-year, post-professional program is for holders of the Bachelor of Architecture (B. Arch.) degree from a North American institution whose program has been accredited by the National Architectural Accrediting Board (NAAB). Having fulfilled academic requirements in preparation for internship and for the eventual licensing examination, holders of the B.Arch. may enter Miami's graduate program in order to pursue specialized interests in a variety of areas. The 36 credit hour track will normally be completed in one academic year and a summer term. The program includes two semesters of studio, may involve directed research, and may include cross-disciplinary or interdepartmental courses and projects. Because the character of the program is individualized, it must be negotiated between the graduate student, the student's adviser, and the director of architecture graduate studies. Potential subjects of study should be related to areas of expertise represented by Miami's Architecture and Interior Design faculty. These include, but are not limited to: architectural history, historic building documentation, architectural criticism, architectural journalism, theory, regionalism, housing, urbanism, pedagogy, energy efficient building design, graphics and computer applications in architecture. A final thesis design and written thesis document are required. Strong liaisons between the Department of Architecture and Interior Design and the Departments of Theatre, Music, and Art in the School of Fine Arts, and with other departments at the University, make the construction of personalized and imaginative curricula feasible, and interdisciplinary projects conceived in this manner are encouraged.

Fall
ARC 701 Pre-Thesis Design Studio (6)
A 500 Level Departmental Graduate Seminar*[1] (3)
A 500 Level Departmental Graduate Seminar*[1] (3)
*See Advisor to determine eligible course options
Elective (3)

Spring
ARC 702 Design Studio (6)
A 500 Level Departmental Graduate Seminar*[1] (3)
A 500 Level Departmental Graduate Seminar*[1] (3)
*See Advisor to determine eligible course options
A Graduate Level Elective[2] (3)

Summer I-III
A Graduate Level Elective[2] (3)
A Graduate Level Elective[2] (3)

[1] Architectural history theory electives

[2] Elective coursework that supports your basic program chosen from this or other graduate programs. With your adviser's approval, you are expected to develop a program consistent with your educational objectives and needs.

Art, Studio- Master of Fine Arts

For information, contact:
Studio Art Graduate Director
Department of Art
124 Art Building (513-529-2900)

http://arts.muohio.edu/art/programs/graduate-studio-art

Admission Requirements

In addition to requirements of the Graduate School, you must meet departmental requirements.

You must have earned a minimum of 74 semester hours (110 quarter hours), of which 12 must be in art history and 12 must be in drawing, studio, and related art courses. At least 12 semester hours (18 quarter hours) must be advanced hours in the area of proposed concentration. Total general academic studies shall not be less than 30 semester hours (45 quarter hours). **Note:** Life experiences, strong portfolio contents, and other factors may substitute for some of these requirements. Only the Department of Art graduate faculty may approve substitutions.

Departmental acceptance into the M.F.A. program is determined by graduate faculty evaluation of transcripts, three letters of recommendation, a one-page statement of goals for study, experience, and examples of creative work indicating competence in the area of proposed study. Portfolios and/or 20 slides representing your studio performance should be submitted to the studio graduate director of the Department of Art at the time of application to the Graduate School. An on-campus interview with an instructor in the area of proposed study prior to or during the application process is strongly recommended. Instructional and other resources of the department determine the number of applicants accepted.

Application deadline is **Feb. 1** for admission in the following academic year.

Program Requirements
(60 semester hours)

This program requires a minimum of two years of full-time graduate study with areas for studio concentration available in painting, printmaking, ceramics, metals, and sculpture.

24	semester hours of 600-level studio courses with no less than 18 hours in either painting, printmaking, ceramics, metals, or sculpture
3	semester hours of ART 601 Teaching Assistant Seminar (required of graduate teaching assistants)
9	semester hours of graduate-level art history, including ART 589 Contemporary Art (3) and ART 680 Graduate Seminar in Art History (3)
3	semester hours of graduate-level drawing
12	semester hours of graduate-level course options
9	semester hours, thesis

Art Education- Master of Arts

For information, contact:
Graduate Director for Art Education
Department of Art
124 Art Building (513-529-2900)

http://arts.muohio.edu/art/programs/graduate-art-education

Admission Requirements

In addition to the Graduate School requirements, you must meet departmental requirements. Requirements include an undergraduate major or minor in art or art education with preference for certification/licensure to teach art. Multi-age Visual Arts Licensure through the State of Ohio is not a graduate requirement. Those wishing to earn licensure may do so concurrently at the undergraduate level.

Submit the following to the graduate director for art education at the time you apply to the Graduate School: 12 slides of studio work or evidence of comparable work, a written statement of intent to pursue graduate work, and three letters of recommendation. Instructional and other resources of the department determine the number of applicants accepted.

The deadline for a graduate assistantship award application is **Feb. 1**. For part-time work on the M.A., an application may be submitted throughout the academic year.

Program Requirements
(30 semester hours)

As a culminating experience for this program, an exhibition, professional speech, article, or oral examination (if you are writing a thesis) is required. You must complete this project **at least 35 days before you graduate.**

If you choose an exhibit, speech, or article, you must meet with each member of your graduate committee before you complete 24 hours of course work, and you must follow the guidelines, available from the graduate director.

If you choose to write a thesis, an oral examination is required. You must inform the graduate director of your decision to write a thesis before you complete 10 hours of course work so that a committee is selected and your thesis proposal is approved.

Program Outline **(30 semester hours)**

Art education core
ART 603 Development of Philosophical Foundations in Art Education (3)
ART 604 Research in Art Education (3)
ART 605 Current Issues in Art Education (3)
ART 606 Graduate Seminar in Art Education (3)

Depth content area
Minimum of nine semester hours in one of these depth content areas: Metals, painting, drawing, printmaking, ceramics, sculpture, and general crafts (9)
Art history (3)
Advised electives (6)

(If you choose to write a thesis, select ART 700 Thesis for at least six and no more than 12 hours of electives.)

Biological Sciences- Master of Arts in Teaching

Requirements: Master of Arts in Teaching in the Biological Sciences
(35 semester hours)

The Master of Arts in Teaching in the Biological Sciences (MAT) is a cooperative program offered by the Departments of Botany, Microbiology, and Zoology. The MAT has three main programs: Advanced Inquiry Program (AIP), the Global Field Program (GFP) and the Integrative Science Program (ISP). These programs are designed for educators (K–12 teachers and administrators) who want a part-time, non-thesis master's program.

1. Incoming students are expected to have completed a bachelor's degree. A student may be required to complete undergraduate courses as part of his/her program of study.
2. Complete at least 35 credits of graduate work.
3. Complete the MAT's Science Program Development and Leadership Course (2 credits)
4. Complete the MAT's Capstone Course (2 credits)
5. Complete a teaching/work portfolio
6. The MAT program graduate committee must approve the academic program for students.

For more information about requirements, admission, and program description go to Miami University Graduate programs at *http://www.miami.muohio.edu/graduate/programs/bio.cfm.*

Botany- M.A. in Teaching, M.S., Ph.D., Certificates in Ecology & Molecular Biology

For information, contact :
Director of Graduate Studies
Department of Botany
316 Pearson Hall (513-529-4200)
www.muohio.edu/botany

Research and Support Facilities

The department has well-equipped research laboratories in plant anatomy and morphology, cell biology, plant ecology, plant molecular biology, mycology, plant physiology, plant systematics, bioinformatics, and science education. Special facilities include: Electron Microscopy and Imaging Facility, Willard Sherman Turrell Herbarium, Center for Bioinformatics and Functional Genomics, plant growth chamber facility, Ecology Research Center (184 acres), and computer and microcomputer facilities. Special departmental funds are available on a competitive basis to support student research projects.

Admission Requirements

Admission is based on evaluations by departmental faculty. You should submit: departmental application, transcripts, Graduate Record Examination (GRE) scores, and a statement that describes your training and experience and defines your area of research interest and long-range goals. In addition to the preceding requirements, you should also arrange for three letters of recommendation to be sent. (See department Web site.)

Requirements: Master of Arts
(36 semester hours)

1. Minimum background preparation at the undergraduate level in:
   - general biology or botany
   - organic chemistry or biochemistry
   - genetics or evolution
2. Complete BOT 600A section PA during summer IV term preceding your first fall semester in residence, and complete BOT 660 during your first fall semester in residence.
3. Complete at least 36 hours of graduate work including at least (a) one of BOT 650, 720, or equivalent; (b) three BOT 500- or 600-level courses with a minimum of three hours each, exclusive of BOT 600, 720, and 750; (c) six to 12 hours of BOT 700.
4. Demonstrate adequate knowledge of botany and related areas by passing an oral comprehensive examination.
5. Complete an internship experience (or approved substitute), write a report in accordance with current Graduate School guidelines, and pass an oral defense of the internship report.

Requirements: Master of Arts in Teaching in the Biological Sciences
(35 semester hours)

For more information about requirements, admission, and program description go to Miami University Graduate programs at: http://www.miami.muohio.edu/graduate/programs/bio.cfm or visit the Biological Sciences field of study in this Graduate Bulletin.

Requirements: Master of Science
(30 semester hours)

1. Master's candidates who have not had adequate undergraduate training in organic chemistry, general biology, ecology, genetics, plant morphology, plant physiology, and plant taxonomy must make up such deficiencies as part of the graduate program.
2. Complete BOT 600A section PA during summer IV term preceding your first fall semester in residence, and complete BOT 660 during your first fall semester in residence.
3. Complete at least 30 hours of graduate work including at least: (a) one of BOT 650, 720, or equivalent; (b) three BOT 500- or 600-level courses with a minimum of three hours each, exclusive of BOT 600, 720, and 750; (c) one pedagogical botany graduate course (at Miami) of three credit hours or more (with a "B" or higher) from at least three of the four core areas in botany; (d) completing six to 12 hours of BOT 700.

4. Demonstrate adequate knowledge of botany and related areas by passing an oral comprehensive examination.
5. Pass an oral defense of the thesis.

In addition to the general requirements described above, M.S. students may be eligible for a certificate in Ecology. See the field of study listing in this Graduate Bulletin titled Ecology-Certificate for the requirements.

Requirements: Doctor of Philosophy
(60 semester hours)

In addition to the general requirements specified by the Graduate School, you must meet minimum requirements for the master's degree or equivalent and fulfill the following requirements:

1. Complete BOT 600A section PA during summer IV term preceding your first fall semester in residence, and complete BOT 660 during your first fall semester in residence.
2. Complete at least 60 hours of graduate work including at least (a) two of BOT 650, 720, or equivalent; (b) six 500- or 600-level graduate courses with a minimum of three hours each, four of which must be BOT 500- or 600-level courses exclusive of BOT 600, 720, and 750; (c) one pedagogical botany graduate course (at Miami) of three credit hours or more (with a "B" or higher) from at least three of the four core areas in botany; (d) 16 to 60 hours of BOT 850.
3. Demonstrate adequate knowledge of botany and related areas by passing a written and oral comprehensive examination.
4. Pass an oral defense of the doctoral dissertation.

In addition to the general requirements described above, Ph.D students may be eligible for certificates in Ecology or Molecular Biology by taking additional specific formal coursework. See the field of study listings in this Graduate Bulletin titled Ecology-Certificate or Molecular Biology-Certificate for more details regarding requirements.

Business Administration- Master of Business Administration

For information, contact:
MBA Program Office, Suite 1038
Farmer School of Business (513-529-6643)
www.fsb.muohio.edu/mba

The Full-Time MBA program is a concentrated, functionally integrated, 14-month program beginning in the summer semester. It combines classroom training with experiential learning through internships with leading companies in the region as well as an international field study.

The Farmer School of Business offers a Professional MBA degree with evening classes held at Miami's Voice of America Learning Center in West Chester, Ohio. The program is designed to allow completion in 2 years, assuming year round participation by the student, and will allow the student to gain the degree with a concentration in marketing, finance, or general business. Admission requirements are posted on the MBA program website.

The Farmer School of Business is accredited by the AACSB, the international association for management education. In addition to the MBA program, there are also the Master of Accountancy and Master of Arts in Economics programs which are described under their alphabetical listings.

Admission Requirements

The Graduate Management Admission Test (GMAT) score report should be sent directly to Miami University. The application, fee, and official copies of your transcript should be sent to the Graduate School. A resume, letters of recommendation, and essays should be sent directly to the MBA Office in the School of Business. Complete details of the admission process can be found on the MBA admission website.

Requirements: Full-Time Program
(50 semester hours)

The Full-Time MBA program does not have prerequisite course work or undergraduate major requirements. All students will start with the Summer I semester in mid-May and complete the program in 14 months. As our program is a general MBA focused on strategic work processes, there are no electives or functional specializations.

Summer I & III (16 semester hours)
ACC 601 MBA Accounting Module (3)
BUS 601 MBA Strategy Module (1)
DSC 602 Graduate Survey in Statistics (2)
ECO 602 MBA Economics Module (3)
FIN 625 MBA Managerial Finance (3)
MGT 601 MBA Operations Management Module (2)
MKT 601 MBA Marketing Module (1)
MKT 602 MBA Creativity Module (1)

Fall Semester (15 semester hours)
BUS 621 New Product and Service Design (2)
BUS 622 Customer Acquisition (2)
BUS 625 Graduate Business Seminar (2)
BUS 629 Graduate Business Field Study (1)
BUS 633 External Process Integration (2)
FIN 628 Capital Acquisition (3)
MIS 621 Enabling Technologies Topics I (3)

Spring Semester (15 semester hours)
BUS 623 Internal Process Integration (2)
BUS 624 Process Design and Improvement (2)
BUS 626 Graduate Business Seminar (2)
BUS 629 Graduate Business Field Study (1)
BUS 637 Managing Competition (3)
BUS 638 Global Markets (2)
MGT 644 Leadership, Change Management & Cross-Cultural Management (3)

Summer I (4 semester hours)
BUS 629 Graduate Business Field Study (Global Consultancy) (4)

Requirements: Professional (part-time) program
(36 semester hours)

There are three pre-requisite courses required prior to beginning the Professional MBA Program: Financial Accounting, Statistics, and Micro-Economics. Students must also display familiarity with standard desktop software, particularly spreadsheets. There will be an assessment process to ensure that the admitted student has both completed the pre-requisite courses and is competent in the prerequisite subject matter.

Students admitted to the Professional MBA program may choose a concentration in Marketing or Finance or students may earn a general MBA by taking a combination of three concentration courses.

Core courses (27 semester hours)
ACC 611 Accounting for Managers (3)
ECO 616 Microeconomic Analysis for Managerial Decisions (3)
MIS 621 Enabling Technology Topics I (3)
FIN 625 Managerial Finance (3)
MKT 618 Marketing Management (3)
MGT 627 Supply Chain & Operations Management (3)
MGT 644 Leadership, Change Management & Cross Cultural Management (3)
MGT 654 Strategic Human Resource Management (3)
BUS 637 Managing Competition (3)

Marketing Concentration Courses
MKT 622 Creativity, Innovation, & Problem Solving in Marketing (3)
MKT 632 Marketing in an Information and Network Economy (3)
MKT 642 Globalization & Marketing Strategy (3)

Finance Concentration Courses
FIN 635 Investment Management (3)
FIN 645 Futures and Options (3)
FIN 675 Applied Advanced Corporate Finance (3)

Cell, Molecular and Structural Biology (CMSB)- Master of Science, Doctor of Philosophy

For information, contact:
Chair of Graduate Advisory Committee
Department of Zoology
212 Pearson Hall (513-529-3100)
http://zoology.muohio.edu

Cell, Molecular and Structural Biology is a multi-disciplinary program that seeks to identify and understand the molecules that collectively form the basis of all life.

Program requirements

Core courses:

One from each of three areas:

Biochemistry:
CHM 532 Fundamentals of Biochemistry (4)
CHM 533 Biochemistry (3)

Cell Biology:
BOT/MBI/ZOO 606 Advanced Cell Biology (3)

Molecular Biology:
BOT/MBI/ZOO 605 Advanced Molecular Biology (3)

Structural Biology:
BOT/ZOO 582 Scanning Electron Microscopy Laboratory (2)
BOT/ZOO 583 Transmission Electron Microscopy Laboratory (2)

Note: Enrollment in BOT/ZOO 582 or 583 requires completion of, or current enrollment, in BOT/ZOO 581 or equivalent.

CHM 760P Protein X-Ray Crystallography (2)
CHM 770R Biological Magnetic Resonance (2)

Seminar:
BOT/CHM/MBI/ZOO 650 Seminar in Molecular Biology (1)
Two semesters for M.S.
Four semesters for Ph.D.

Additional course work appropriate to student's area of interest will be determined by student's dissertation committee in accordance with Graduate School requirements.

Dissertation/Thesis Committee

The student, in consultation with his/her advisor, will set up a thesis committee (M.S.) by the end of the second semester in the program or a dissertation committee (Ph.D.) by the end of the third semester in the program. Thesis committees must be approved by the CMSB Executive Committee and the Graduate School.

M.S. Thesis Committee: Advisor and two other faculty members participating in the CMSB Program (total = 3).

Ph.D. Dissertation Committee: Advisor, at least three other faculty members from the CMSB Program, plus one additional faculty member who is not from the student's host department to serve as the Graduate School representative (total = 5).

Comprehensive Examination:
M.S. - none
Ph.D. - written grant proposal on topic not related to dissertation work followed by oral defense of the proposal. Both written and oral components of the exam must be passed. The comprehensive examination should be completed by the end of the fifth semester in residence.

Thesis or Dissertation Proposal:

Each student will present and defend a thesis or dissertation proposal to his/her thesis or dissertation committee. This should be done by the end of the third semester (M.S. students) or the end of the sixth semester (Ph.D. students) in residence.

Other requirements:

CMSB students will be expected to participate in pedagogy training prior to assuming their teaching duties. Students teaching Chemistry laboratories will attend training offered by the Department of Chemistry and Biochemistry. Students teaching BMZ laboratories will attend pedagogy training offered by one of the biological sciences departments. The CMSB Executive Committee, in consultation with participating departmental Graduate Advisory Committees, will assign CMSB students to appropriate departmental pedagogy training. CMSB students will also be expected to serve on CMSB and host department committees and otherwise participate in activities required of graduate students from the host department.

This structure will provide the necessary flexibility for an interdisciplinary program. The dissertation committee will be responsible for helping the student select courses that will appropriately train the student in the broad area of Cell, Molecular, and Structural Biology, with the specialization required for their particular research area. The committee will also administer the comprehensive examination for Ph.D. students, give guidance for thesis or dissertation research, and will be responsible for conducting the thesis or dissertation defense.

Chemistry- Master of Science, Doctor of Philosophy

For information, contact:
Department chair
Department of Chemistry and Biochemistry
160 Hughes Laboratories (513-529-2813)

http://chemistry.muohio.edu/

The department has M.S. and Ph.D. programs in analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry, and chemical education as well as in interdisciplinary areas such as molecular biology, structural biology, materials chemistry, and nanotechnology. These programs are well supported by an active staff, excellent teaching and research facilities in a newly renovated building, and a full range of instrumentation. These programs are described in a booklet, *M.S. and Ph.D. Programs in the Department of Chemistry*, available from the department.

The M.S. degree requires a minimum of 30 semester hours.

The Ph.D. degree requires a minimum of 60 semester hours beyond the master's degree.

College Teaching- Certificate

This certificate program is available to master and doctoral candidates in any field of study across the university. Its purpose is to provide graduate students with the opportunity to develop their pedagogical knowledge and skill in an interdisciplinary manner that facilitates the development of teacher-scholars. The Certificate in College Teaching consists of a variety of course work and experiences guided by a student's mentor. Students will select a mentor and develop a plan of study that addresses three major components: discipline specific teaching experience/study, interdisciplinary pedagogy, and instructional/learning theory. The plan of study is submitted to the College Teaching Certificate Committee for approval. Upon the completion of the program plan, the student and mentor will submit a statement indicating that the program plan was completed, including a self-assessment by the student and an assessment by the mentor, to the College Teaching Certificate Committee, who determines if the student has completed all program requirements. Only students enrolled in a masters or doctoral program that are in good academic standing will be admitted into the Certificate in College Teaching program. Courses taken to complete one's degree can count toward the Theory program component and/or the Discipline program component. Students must have a 3.0 GPA in the Certificate courses to be awarded the Certificate in College Teaching. The Certificate in College Teaching will be awarded

upon the completion of all certificate requirements and completion of a graduate degree (masters or doctoral). Students will NOT receive a State of Ohio certificate in teaching.

Certificate Program requirements: (12 hours)

Interdisciplinary Pedagogy

All of these:
GSC 601 Graduate Student Teaching Enhancement Program (1; maximum 2)
GSC 602 College Teaching (1)
GSC 603 Academic Cultures (1)

Theory

1-2 courses from the following list (or substitute courses that have been approved by the College Teaching Certificate Committee):
CHM 710A Topics in Chemistry Education: Chemistry Misconceptions and Conceptual Change (3)
CHM 710B Topics in Chemistry Education: Learning Theories in Chemistry (3)
EDL 621 Foundations of Multi-Cultural Education (3)
EDL 623 Philosophy of Education (3)
EDL 629 History of Education in America (3)
EDL 677 Student Development Theory I (3)
EDL 679 Higher Education in the United States (3)
EDP 603 Theories of Human Learning (3)
EDP 635 Theories of Human Development (3)
ENG 730 Studies in Composition Research and Pedagogy (4; maximum 12 toward any one degree)
ENG 734 Issues in Digital Composition Pedagogy (4; maximum 12)
FSW 581 Adolescent Development in Diverse Families (3)
PSY 551 Cognitive Neuroscience (3)
PSY 574 Advanced Cognitive Processes (3

Discipline Specific Teaching Experience: (3-6 hours)
Contact the Graduate School for guidelines on completing this component.

Final Assessment
Submitted to the College Teaching Certificate Committee

Comparative Religion- Master of Arts

For information, contact:
Director of Graduate Studies
Department of Comparative Religion
7 Old Manse (513-529-4300)
www.muohio.edu/religion

Admission Requirements

Admission requirements include: a personal statement describing your academic background in the study of religion, your specific area of specialization, and your professional objectives; a ten to twenty page writing sample, preferably reflective of your specific area of interest; GRE scores, undergraduate transcripts from every institution you have attended, and three letters of recommendation from your professors

Program Requirements
(30 semester hours)

Six semester hours of thesis credit are included in this program. You must pass a qualifying examination, written and oral, on specified books of major significance in the study of religion; write a thesis; and pass an oral thesis defense. Developing reading ability in a language appropriate to the area of study is strongly encouraged.

Computational Science and Engineering- Master of Science

For information, contact:
Director of Graduate Programs
School of Engineering and Applied Science
205 Benton Hall (513-529-0345)
www.eas.muohio.edu/graduate-degrees/cse/

This degree is intended to meet the need for engineers and scientists who are not only well trained in an engineering or science discipline, but also in the computational areas that are needed to support these disciplines.

This degree is a 33 to 38-credit hour, thesis-based program. Courses are distributed among the following categories: computational core (12-16 credit hours), science or engineering courses (12 credit hours), and thesis and research seminars (9 credit hours). Completion of the computational core requires competency in data structures and algorithms, simulation of physical and engineering systems, optimization, high performance computing, and numerical methods. This is a thesis-based degree. Thus, students will work with a faculty member on a research problem whose solution requires computation. The program has three areas of concentration:

- Bioinformatics
- Computational Mechanics
- Communication Systems Modeling and Simulation

Admission and Application Requirements

New students are admitted only in the fall semester of the year. Entry into the graduate program requires completion of a bachelor's degree in computer science (for the bioinformatics concentration), mechanical or manufacturing engineering (for the computational mechanics concentration), or electrical or computer engineering (for the communication systems modeling and simulation concentration), or a closely related field.

Prospective students will be ranked and selected for admission into the master's program based on the following criteria:

1. An undergraduate grade point average (g.p.a.) of 3.00+
2. Graduate Record Examination (GRE) scores of at least 400+ verbal; 650+ quantitative; and 3.50+ analytical
3. TOEFL scores, when required, of 230+, paper-based 500+
4. Three letters of recommendation (sent directly to the School of Engineering and Applied Science)
5. Student's undergraduate curriculum
6. Student's narrative describing the purpose of their study

Program Requirements
(33-38 semester hours)

The master's degree curriculum requires the completion of 24-29 semester hours of formal course work. In addition, each student must complete a minimum of six hours of thesis research and three hours of research seminar (one hour each) related to their area of research. The total semester hours required for the MS degree is 33 to 37 hours of graduate study and any additional hours needed to satisfy any undergraduate deficiencies.

Program requirements in course work include 12-17 credit hours in courses in the computational core and 12 credits in one of the three concentrations. Students may enter the program with courses that cover some of the material in the computational core; however, they must still complete at least 12 credit hours of computational courses. (This is especially true for students with a BS in Computer Science.)

Program requirements

Computational Core (9-12 hours)

Prerequisite courses: One of the following:

Students must pass the following course if they have not had these or equivalent courses in the last two years. As an alternative, they may pass a proficiency test.
CSE 603 Computer Programming (4)

An equivalent course or courses within the last two years.

Pass a proficiency test over the material in CSE 603.

12 credit hours from the following courses chosen with the advice and approval of the advisor and graduate program director. (Bioinformatics student are required to take 9 credit hours as long as they have credit for CSE 606 or its equivalent.)

CSE 606 Data Structures and Algorithms (4)
CSE 607 Introduction to Database Systems with Its Mathematical Foundations (3)
CSE 615 Mathematical Modeling (3)
CSE 616 Simulation of Physical Systems (3)
CSE 541 Application of Technical Computing Tools (1)
CSE 543 High Performance Computing (3)
MME 601 Numerical Methods for Science, Engineering, and Statistics (3)

Research seminars (3 hours)

Thesis (6 hours)

Communication System Modeling and Simulation Concentration

One of the following courses:
ECE 525 Digital Signal Processing (3)
ECE 553 Communication Systems (3)

Three ECE graduate courses chosen with the advice and approval of the advisor and graduate program director

Computational Mechanics Concentration

The following three courses:
MME 512 Advanced Mechanics of Materials (3)
MME 536 Control of Dynamic Systems (3)
MME 623 Mechanical Behavior of Materials (3)

One of the following:
Any remaining MME graduate courses
ECE 525 Digital Signal Processing (3)
MTH 532 Optimization (3)
MTH 535 Mathematical Modeling Seminar (3)
PHY 523 Materials Physics (4)
PHY 551 Classical Mechanics (4)
STA 501 Probability (3)
STA 563 Regression Analysis (4)
STA 566 Experimental Design Methods (4)

Research seminars (3 hours)

Thesis (6 hours)

Bioinformatics Concentration:

The following course:
BOT/MBI/ZOO/CSE 566 Bioinformatics Computing Skills (3)

Two of the following:
BOT/MBI/ZOO 524 Biological Instrumentation (3)
ZOO 544 Molecular Biology (3)
MBI 545 Microbial genetics (3)
BOT/MBI/ZOO 485/585 Bioinformatics Principles

One of the following courses:
CSE 607 Database Systems (3)
CSE 585 Advanced Database Systems (3)
CSE 664 Advanced Algorithms (3)
MTH 536 Combinatorial Design (3)
MTH 538 Theory & Application of Graphs (3)

One of the following courses:
STA 501 Probability (3)
STA 502 Statistical Programming (3)
STA 562 Inferential Statistics (3)
STA 563 Regression Analysis (4)
STA 685 Biostatistics (3)

Research seminars (3 hours)

Thesis (6 hours)

Computer Science- Master

For information, contact:
Director of Graduate Programs
Department of Computer Science and Software Engineering
205 Benton Hall (513-529-0340)
http://www.eas.muohio.edu/departments/cse/cse/

The Department of Computer Science and Software Engineering offers a research-oriented master's degree program in computer science to students who hold a bachelor's degree in computer science or a closely related field. Students who enter the master's degree program will complete a thesis related to one of the current research interest areas of the faculty. Graduates of the program will be prepared for further postgraduate study or opportunities in the computing profession. Completion of the degree is expected to take one and one-half to two years.

Admission and Application Requirements

New students are admitted only in the fall semester of the year. Entry into the graduate program requires completion of a bachelor's degree in computer science, or a closely related field, that includes knowledge of the computing field that is equivalent to or stronger than the department's graduate certificate program. Specifically, students must know data structures, computer architecture, operating systems, and algorithms.

Additional entrance requirements include successful completion of courses in the following areas:

- differential and integral calculus
- probability and statistics
- discrete mathematics
- linear algebra

Prospective students will be ranked and selected for admission into the master's program based on the following criteria:

7. an undergraduate grade point average (g.p.a.) of 3.00+
8. Graduate Record Examination (GRE) scores of at least 400+ verbal; 650+ quantitative; and 3.50+ analytical
9. TOEFL scores, when required, of 230+, paper-based 500+
10. three letters of recommendation (sent directly to the Computer Science and Software Engineering Department)
11. student's undergraduate curriculum
12. student's narrative describing the purpose of their study

Program Requirements
(33 semester hours)

The master's degree curriculum requires the completion of 24 semester hours of formal course work. In addition, each student must complete a minimum of six hours of thesis research and three hours of research seminar (one hour each) related to their area of research. The total semester hours required for the MCS degree is 33 hours of graduate study and any additional hours needed to satisfy any undergraduate deficiencies.

To successfully complete the program, students must satisfy both our breadth and depth course work requirements to guarantee that they graduate with the requisite basic computer knowledge. To complete the breadth requirement, satisfy the foundation and breadth requirements shown below. To satisfy the depth requirement, complete 12 hours at the 600 level.

Required courses **(18-33 credit hours)**

Foundation Courses
You must take the following courses if you do not have equivalent course credit. None of these courses count toward the 24 credit hour graduate-level course work requirement.

CSE 283 Data Communication and Networks (3)
CSE 381 Operating Systems (3)
CSE 385 Database Systems (3)
CSE 464 Algorithms (3)
MTH 231 Elements of Discrete Mathematics (3)

Breadth Courses

You must pick four of the following courses, including at least one from each of the areas of theory, systems, and applications. Within each area, particular CSE 620 Special Topics offerings may be used if approved by the Graduate Program Director.

Theory:
CSE 573 Automata, Formal Languages & Computability (3)
CSE 664 Advanced Algorithms (3)

Systems:
CSE 574 Compiler Design (3)

CSE 617 Advanced Networks (3)

Applications:
CSE 585 Advanced Database Systems (3)
CSE 586 Introduction to Artificial Intelligence (3)

Elective Courses (12 credit hours)

Any courses taken from the breadth courses beyond the required four will count as electives. The remainder of the required 24 credit hours of graduate courses should be selected from the following courses.

CSE 543 High Performance Computing & Parallel Programming (3)
CSE 565 Comparative Programming Languages (3)
CSE 566 Bioinformatics Computing Skills (3)
CSE 571 Simulation (3)
CSE 585 Advanced Database Systems (3)
CSE 615 Mathematical Modeling (3)
CSE 618 Graphics for Simulation and Virtual Environments (3)
CSE 620 Special Topics (3)
CSE 621 Foundations of Software Engineering (3)
CSE 624 Expert Systems (3)
CSE 626 Information Retrieval Systems (3)
CSE 627 Machine Learning (3)
CSE 628 Advanced Simulation (3)
CSE 631 Ontologies for the Semantic Web (3)
CSE 690 Graduate Research (3)
ECE 525 Digital Signal Processing (3)
ECE 553 Communication Systems (3)
ECE 561 Network Performance Analysis (3)

Additional Requirements
CSE 610 Seminar in Systems Analysis (3)
CSE 700 Thesis Research (6)

Ecology - Certificate

For more information on this interdepartmental program, contact the director of graduate studies in one of the participating departments:

Department of Botany
316 Pearson Hall (513-529-4200)
http://www.cas.muohio.edu/botany/

Department of Geography
216 Shideler Hall (513-529-5010)
www.muohio.edu/geography/grad

Department of Geology
114 Shideler Hall (513-529-3216)
www.units.muohio.edu/geology/graduate/index.html

Department of Microbiology
32 Pearson Hall (513-529-5422)
www.cas.muohio.edu/micro/grad

Department of Zoology
212 Pearson Hall (513-529-3100)
http://zoology.muohio.edu/zoo/graduate

This certificate program is available to students who have been admitted to the Graduate School, earn either a Master's Degree or Ph.D. in one of the participating departments, and have met the requirements below. Students must also be admitted to a department, which is referred to as the student's "home" department.

Students must earn at least 18 credit hours, distributed as follows:

a. one graduate course in population and/or community ecology
b. one graduate course in ecosystem and/or global ecology
c. one graduate course in the student's home department, not including those used to satisfy A or B above
d. one graduate course in statistics or mathematical modeling
e. at least two graduate seminars for the M.S. in Ecology: at least four graduate seminars for the Ph.D in Ecology.

Ecology, Evolution and Environmental Biology- Doctor of Philosophy

For information, contact:
Dr. Michael Vanni
212 Pearson, Hall (513) 529-3192

Ecology, Evolution, and Environmental Biology is a multi-disciplinary program that includes the study of organisms and their interactions with the environment.

Program requirements

The focus of a student's program will be his/her dissertation research. Course requirements will be flexible to meet the particular needs and goals of each student. Thus, a student interested in global climate change and its effect on biogeochemical cycling will be permitted to take a set of courses that is largely different from another student interested in the evolutionary genetics of an endangered species.

Each student will be required to earn at least 12 graduate credits from formal courses. At least 2 of these courses must be "program courses." (Program courses are those offered by the various departments, which the EEEB Executive Committee designates as officially approved program courses). In addition, at least one additional course (not including the 2 "program courses" mentioned above) must be from the student's home department. The particular set of courses taken by an individual student will be determined in consultation with his/her advisor and committee.

Each student must also take at least 5 graduate credits of approved EEEB seminar courses, in addition to the 12 credits mentioned above. Two of these seminar credits will be taken in year 1 of the program in the form of two new 1-credit seminar courses that will developed by EEEB faculty and offered each year (one each in fall and spring semesters). These new seminars will cover a breadth of topics in EEEB, will be team-taught by EEEB faculty, will serve as an introduction to the scope of EEEB, and will help facilitate the formation of cohorts of EEEB students. The other 3 graduate seminar credits will be taken from graduate seminars offered by the participating departments and falling within the EEEB domain (e.g., "journal club" style courses such as BOT 720, GEO 620, GLG 710, MBI 750, ZOO 710). EEEB students can choose from among these seminars, but to meet program requirements these must be officially approved as "EEEB seminars." Collectively, EEEB faculty will offer at least two of these "EEEB seminars" each semester. The topics and instructors will vary, in accordance with recent emerging topics, and the EEEB Executive Committee will determine which seminars receive this designation each semester. Faculty members will be encouraged to offer seminar courses that are cross-listed among departments and team-taught by EEEB faculty. This will not impose a burden on our faculty; for example, Zoology already offers 2 seminars in EEEB areas each semester, and it is expected that these will be approved as "program seminars." EEEB faculty have offered co-taught, cross-listed seminars numerous times in the past. For example, during fall semester 2000, three EEEB faculty from three different departments offered a graduate seminar entitled Human Impacts on Ecological Processes, cross-listed as Botany 720, Geography 620, and Zoology 710.

Economics- Master of Arts

For information, contact:
Director of Graduate Studies
Department of Economics, Suite 2054

Farmer School of Business (513-529-2836)
www.fsb.muohio.edu/departments/economics/meco

This program prepares students for careers as professional economists, equipped to serve academia, government, and the business world. Accordingly, this program provides a background in economics that can serve as a terminal degree or preparation for further graduate study. Emphasis is on theoretical and statistical techniques used in the investigation of empirical problems.

The Farmer School of Business also offers a Master of Business Administration and a Master of Accountancy; these programs are described under their alphabetical listings.

Admission Requirements

Applicants should have completed, with a grade of C or better: intermediate-level courses in microeconomic and macroeconomic theory, at least one course in calculus, and at least one course in statistics. Additional mathematics courses are strongly recommended. GRE examination scores and three letters of recommendation should be sent to the department address listed above.

Program Requirements

(35 semester hours)

Students are required to complete a 35-semester-hour program that normally consists of:

ECO 615 Advanced Microeconomic Theory (3)
ECO 617 Advanced Macroeconomic Theory (3)
ECO 640 Topics in Macroeconomics (3)
ECO 650 Topics in Microeconomics (3)
ECO 661 Quantitative Methods for Economists (3)
ECO 663 Econometrics (3)
ECO 671 Topics in Applied Econometrics (2)
ECO 672 Applied Time Series Analysis (2)
ECO 685 Graduate Research Methods (3)

Research paper prepared with supervision of a graduate faculty member (maximum 12 hours)

Students must pass a written, oral, or combined examination on their research paper and related study in economics.

Education- M.A., M.A.T., M.Ed., M.S., Specialist in Education, Ph.D., Ed.D.

For information, contact:
Director of Graduate Studies in your department **or**
Dean's office
School of Education, Health and Society
207 McGuffey Hall (513-529-6317)
http://www.units.muohio.edu/eap/

Master's Degrees

All master's degrees require at least 30 semester hours, and some programs require more. At least 15 semester hours must be earned at 600-level or above, and no more than one-third of the credits required for a master's degree may be transfer credits.

The Master of Arts is offered by the Department of Educational Psychology. The Master of Education is offered by the departments of Educational Leadership, Educational Psychology, and Teacher Education. . The Educational Leadership and Teacher Education Masters require at least a provisional teaching certificate/license or one earned no later than when your master's degree is awarded. The Educational Psychology Masters has one focus that requires licensure (Educational Focus) and one focus that does not require licensure (Psychological Focus).

Master of Arts in Teaching programs are administered by the Department of Teacher Education. Master of Science programs are offered by the departments of Educational Leadership, Educational Psychology, and Family Studies and Social Work.

Department listings describe these programs. Check with your department for the most recent licensure requirements where appropriate.

Teaching Programs

For information, contact the director of graduate studies in your department or the dean's office in the School of Education, Health and Society (513-529-6317). Programs in art education and music education are described in art and music.

Specialist in Education, Doctoral Degrees

The Specialist in Education degree is offered by the Department of Educational Psychology. Doctor of Philosophy and Doctor of Education degrees are offered by the Department of Educational Leadership. Department listings describe these programs.

Education, Teacher Education- Master of Education, Master of Arts in Teaching

For information, contact:
Director of Graduate Studies
Department of Teacher Education
404 McGuffey Hall (513-529-5708)
www.muohio.edu/edt/graduateprograms

Some of these programs also lead to teaching or supervisory licensure by the Ohio Department of Education. The Department of Teacher Education also offers a variety of graduate-level courses and workshops for in-service education and professional development of school personnel who may not be interested in degree programs.

Admission Requirements

To receive graduate credit for courses taken, you must be admitted to the Graduate School. Admission to nondegree study requires Graduate School admission with continuing nondegree graduate standing. Admission to any of the master's degree programs requires:

5. Acceptance by the Graduate School;
6. The Graduate Record Exam (GRE) (verbal and quantitative) is required for all Master of Arts in Teaching applicants. Master of Education applicants are required to take the GRE in Educational Psychology; they are exempt from taking the GRE in other programs.
7. Obtain two recommendations. One of your references should be from someone who has observed you working with children (principal, youth camp director, etc.). Ask your references to use this form online: *https://survey.muohio.edu/checkbox/dispositions.aspx*.

Essay Statement – After reviewing pertinent program literature at the departmental website write a 500-700 word essay that clearly describes your goals as a teacher (or goals for becoming a teacher) and how this EDT graduate program will help you to achieve those goals. This essay will fulfill three purposes: (1) it will help us understand who you are and why you wish to pursue graduate work, (2) it will help us determine your ability to effectively communicate in writing, and (3) during the master's defense presentation that culminates your program, it will provide a pre/post indicator of your achievements.

For all programs, send the Graduate School application, application fee, and official transcripts to the Graduate School. Send the essay, and other relevant material to the director of graduate studies in the department at edtgraduateprograms@muohio.edu.

When the Graduate School notifies the department that you have been admitted with appropriate standing, you will be

informed of your admission status and assigned an academic adviser by the department.

General Requirements

Following program admission, you will need to develop a plan of study with your adviser's assistance. You must file a copy of this plan, approved by your adviser, with the department within four months of admission to the degree program. Your plan must satisfy requirements for your area of emphasis, your division, the Graduate School, and the university. At least 15 semester hours must be earned in 600-level courses or above.

You may make substitutions in your plan, provided that each is consistent with these requirements, is approved by your adviser, and is filed with the department office as an amended plan of study prior to registration for the substitute course.

A final comprehensive master's presentation defense is required during the last term of course work for your program. As you approach the completion of graduate course work in your approved plan of study, consult with your adviser to complete the following required components:

1. Successful presentation of research: EDT 690 Research Report and Assessing Student Learning Project (portfolio entry).

2. Successful portfolio presentation (see adviser).

3. Successful performance on Program questions which are structured to include a broad representation of your course work and administered by a committee established by you and your adviser, including at least one other member of the Department of Teacher Education. One of your committee members must hold a Level A ranking.

MAT candidates seeking licensure will be expected to successfully complete the established benchmark assessment system. Information about the assessment system should be obtained from the Adolescent Young Adult (AYA) Program Coordinator.

Master of Education Programs

The department offers the Master of Education degree in elementary education, adolescent education, reading education, elementary mathematics education, and adolescent mathematics education.

Requirements: Elementary Education

This program is for those with elementary, early childhood, or middle childhood teaching certification/licensure who wish to become master teachers. This plan of study must include at least 33 graduate semester hours, 15 of which must be 600-level or above.

Required for all programs
M.Ed. professional core course requirement (9 - see list at beginning of education section)

EDT 622 Improvement of Teaching in the Public School (3)
Note: All Mathematic teaching majors should take EDT 563-Updating Elementary School Mathematics Instruction (3) - instead of EDT 622.
EDT 689 Interpretation & Application of Research Education (3)
EDT 690 Practicum in Research in Education (3-6)

Language arts education
At least three courses from these:
EDT 523 Literature and Other Media for Adolescents (3)
EDT 524 Storytelling: Traditional and Contemporary (2)
EDT 603 Language, Literacy and Culture (3)
EDT 626 Teaching Literature to Children (3) or
EDT 627 Literature for Adolescents & Young Adults (3)
EDT 632 Diagnostic and Prescriptive Reading Instruction (3)
EDT 671 Educational Investigation in Reading and Language (1-4)

Mathematics education
EDT 563 Updating Elementary School Mathematics Instruction (3)
EDT 564 Teaching Elementary School Geometry and Metric Measurement (3)
MTH 507 Mathematical Structures Through Inquiry (3)

Science education
EDT 505 Advanced Science for the Elementary School Teacher (3)
EDT 535 Advanced Laboratory Practicum in Elementary School Science (3)

Social studies education
EDT 652 History & Philosophy of Social Studies Education (3)
EDT 656 Special Investigation in Selected Social Studies Areas (1-3)
At least two courses in one of these areas: anthropology, economics, geography, history, political science, psychology, sociology. (See your adviser for recommendations.)

Comprehensive
At least one course from three of these five areas:

Language arts education; recommended:
EDT 603 Language, Literacy and Culture (3)
EDT 626 Teaching Literature to Children (3) **or**
EDT 627 Literature for Adolescents & Young Adults (3)

Mathematics education; recommended:
EDT 563 Updating Elementary School Mathematics Instruction (3)
EDT 564 Teaching Elementary School Geometry and Metric Measurement (3)
EDT 566 Diagnostic Prescriptive Mathematics Instruction (3)

Science education; recommended:
EDT 535 Advanced Laboratory Practicum in Elementary School Science (3)

Social studies education; recommended:
EDT 652 History & Philosophy of Social Studies Education (3)

Teaching techniques; recommended:
EDT 632 Diagnostic and Prescriptive Reading Instruction (3)

Early Childhood Generalist 4-5 Endorsement (10 semester hours)

The Early Childhood Generalist Endorsement can be added to a valid Ohio Early Childhood P-3 teaching license upon successful completion of required education courses and by passing the PRAXIS II "Elementary Content Knowledge" test (test code 10014). Such an endorsement enables a teacher to teach all core academic content areas in grades four and five in the State of Ohio. Nine of the 10 hours of the endorsement can apply towards the M.Ed. in Elementary Education comprehensive degree.

Take all of the following:
EDT 505 Advanced Science for the Elementary School Teacher (3)
EDT 552 Teaching Social Studies in the Intermediate Grades (3)
EDT 553 Practicum & Praxis for Intermediate Grades (1)
EDT 565 Learning and Teaching Mathematics in the Intermediate Grades (3)

Note: For further details, contact Dr. Robert Burke (burkerw@muohio.edu).

P-6 Mathematics Specialist Endorsement (18-27 hours depending on experience)

This endorsement, valid for grades P-6, can be attached to the following teaching licenses or certificates after a minimum of three years of teaching: early childhood, middle childhood, elementary, AYA mathematics, secondary mathematics. Assessments, coursework and portfolio entries are required to document attainment of the six standards associated with this endorsement. Dependent upon previous graduate work and professional experience 15-21 graduate semester hours are required for this endorsement.

The coursework for this endorsement overlaps (to various degrees) with the M.Ed. degrees in Elementary Mathematics, Elementary Education (with emphasis in Mathematics), and Adolescent Mathematics. (Additional coursework would be required to obtain an M.Ed. degree). Please refer to the Teacher Education website for specific courses.

Note: For further details, contact Dr. Iris DeLoach Johnson (johnsoid@muohio.edu)

Requirements: Reading Education

This program is designed for teacher candidates and other educators with teacher certification/licensure who are interested in careers leading to classroom teaching and service as literacy specialists and other leadership positions.

Area of Foundation Courses (required) - 6 credit hours
EDT 603 Language, Literacy and Culture (3)
EDT 604 Research in Literacy (3)

Reading emphasis (required) - 12 credit hours
EDT 632 Literacy Assessment and Instruction (3)
EDT 642 Phonics & Reading Improvement (3)
EDT 626 Literature for Children (3)
EDT 646 Reading & Writing in the Content Area (3)

Writing and Language emphasis - 6 credit hours

Select six hours from the following:
EDT 625 Teaching Writing (3)
EDT 643 Applied Linguistics for Literacy Educators (3)
ENG 699.3 The Ohio Writing Project (6)

Practicum Experiences (required) - 9 credit hours
EDT 634 Clinical Reading Practicum I – Assessment (3)
EDT 635 Clinical Reading Practicum II – Instruction (3)
EDT 636 Literacy & Leadership (3)

Electives (Advisor approval required) - 3 credit hours

Reading Endorsement (18 semester hours)

The K-12 Reading Endorsement can be added to a valid Ohio teaching license upon successful completion of required graduate level reading education courses **and** by passing the PRAXIS II "Teaching of Reading" test with a score of 540 or better. Such an endorsement enables a teacher to teach reading in grades K-12 in the State of Ohio.

Take all of the following:
EDT 603 Language, Literacy and Culture (3)
EDT 632 Literacy Assessment and Instruction (3)
EDT 634 Clinical Reading Practicum I – Assessment (3)
EDT 635 Clinical Reading Practicum II – Instruction (3)
EDT 642 Phonics & Reading Improvement (3)
EDT 646 Reading & Writing in the Content Area (3)

Literacy Specialist (Coaching) Endorsement

A Literacy Specialist/Coaching Endorsement can be added to the reading endorsement upon (a) successful completion of the required graduate level literacy coursework (with internship), and (b) passing the appropriate literacy specialist (coaching) test. Such an endorsement enables a teacher to serve as a literacy specialist (coach). For further details, contact Dr. Paula Saine at sainep@muohio.edu.

Requirements: Elementary Mathematics Education

This program provides broad preparation in mathematics for elementary, early childhood, or middle childhood school teachers seeking positions as mathematics coordinators and directors of mathematics clinics, as well as those seeking advancement and recognition as master teachers. *This program does not lead to initial licensure to teach mathematics.*

This plan of study must include at least 33 graduate semester hours, 15 of which must be 600-level or above.

Special admission requirements include completion of elementary school teaching certification/licensure at an accredited institution and completion of ***at least 15 semester hours of undergraduate courses in mathematics and/or statistics***. The latter requirement may be completed concurrently with program requirements.

All of these:
M.Ed. professional core course requirements (see list at beginning of education section) (9)
EDT 564 Teaching Elementary School Geometry and Metric Measurement (3)
EDT 566 Diagnostic & Prescriptive Mathematics (3)

EDT 665 Technology Applied in Math Education (3)
EDT 689 Field Application Techniques (3)
EDT 690 Practicum in Research in Education (3)
At least two advised graduate course in mathematics or statistics

Requirements: Adolescent Education

This program is for those with secondary or adolescent teaching certification/licensure who wish to become master teachers. Your plan of study must include at least 33 graduate semester hours, 15 of which must be 600-level or above. Area of emphasis can be in English, mathematics, science, or social studies.

All of these:
M.Ed. professional core course requirement (see list at beginning of education section) (9)

Three advised courses in the area of emphasis (9)
EDT 622 Improvement of Teaching in the Public School (3)
EDT 689 Interpretation & Application of Research in Education (3)
EDT 690 Practicum in Research In Education (3-6)

Electives (6)

Requirements: Adolescent Mathematics Education

This program provides a broad preparation in mathematics for secondary school teachers seeking positions as mathematics department chairpersons, mathematics coordinators, or directors of mathematics clinics, as well as for those seeking advancement and recognition as master teachers.

Special admission requirements include completion of a major teaching certification/licensure program in secondary school mathematics at Miami or another accredited institution, including at least 30 semester hours of mathematics/statistics courses with a year of calculus and with other course work covering algebra, geometry, and probability and statistics. At least 2 graduate courses in Mathematics or Statistics such as: MTH 508, 604, 605, 606, 607 or STA 609.

All of these:
M.Ed. professional core course requirement (see list at beginning of education section) (9)
EDT 663 Advanced Methods for Adolescent/Young Adult Mathematics (3) (Substitute this course for EDT 622 in the M.Ed. professional core course requirements)
EDT 566 Diagnostic & Prescriptive Mathematics (3)
EDT 665 Technology Applied in Mathematics Education (3)
EDT 689 Interpretation & Application of Research in Education (3)
EDT 690 Practicum in Research in Education (3-6)

Master of Arts in Teaching Programs

These programs combine graduate and undergraduate study and enable a student with a baccalaureate degree to earn teaching licensure and a master's degree in approximately four or five semesters of full-time study, depending upon academic background, experience, and teaching field.

Candidates will be expected to complete and pass the portfolio review process at established intervals within the program. Information about the portfolio review process should be obtained from your graduate adviser.

Requirements: Adolescent Education Programs (grades 7 through 12)

A teaching field may be selected from the following adolescent education fields: Foreign language *(Grades K-12): Chinese, French, German, Latin or Spanish; integrated English/language arts, integrated mathematics, Sciences: life science, earth science, physical science, life/earth science, earth science/physics, life science/physics, or earth science/chemistry; and integrated social studies.

Admission

In addition to admission requirements previously listed for all master's programs within the department, candidates should have a baccalaureate degree with an academic major that

corresponds to a teaching field licensure program in the department. Candidates must meet all requirements for entry into a classroom teacher licensure program.

Cohort

To ensure quality instruction, the department limits the number of graduate and undergraduate students in adolescent education licensure programs by selecting students for cohorts. A cohort is a group of students in a common teaching field, taking the same methods courses and student teaching in specific academic years.

A cohort is identified by its general subject area and an academic year; for example, integrated mathematics 2010-11, integrated mathematics 2010-11, and integrated science 2010-11 are separate cohorts. The cohort year indicates the academic year the student is scheduled for methods courses, and the following academic year when the student is scheduled for student teaching.

You should schedule a pre-application counseling appointment with the coordinator of advising (513-529-6443). The coordinator will examine your transcript and advise you about your application and cohort year.

Program Requirements: Adolescent Education

Requirements consist of (1) general requirements, common to all M.A.T. programs, (2) cohort requirements, specific to each cohort area, and (3) content course requirements and retention requirements, specific to each licensure area. These programs are intended for students whose baccalaureate degrees included all or many of the content course requirements. A student who has satisfied all or most of the content course requirements can expect to complete an M.A.T. program in four semesters or in three semesters and one summer; others can expect that additional semesters will be necessary in proportion to the number of content courses that must be satisfied.

General Requirements

At least one of these:
EDP 601 Advanced Educational Psychology (3)
EDP 603 Theories of Human Learning (3)

All of these:
EDL 621 Foundations of Multicultural Education (3)
EDP 543 Audiovisual Instruction: Methods, Media, and Technology (3) **or**
approved technology substitutions
EDP 607 Educational Measurement and Evaluation (3) **or**
EDP 301 Assessment and Evaluation in Educational Settings (2)
EDP 656 Education of Individuals with Exceptionalities (3) **or**
EDP 256 Inclusion of Children and Youth with Exceptionalities (3)
EDT 519 Supervised Teaching (12)
EDT 689 Interpretation & Application of Research in Education (3)
EDT 690 Practicum in Research in Education (3)
FSW 581 Adolescent Development in Diverse Families (3)

Foreign Language program (five languages) (Grades K-12)

This program combines graduate and undergraduate study and enables a student with a baccalaureate degree to earn teaching licensure and a master's degree in approximately four semesters of full-time study, depending upon academic background, experience, and teaching field. A student can earn licensure through this graduate program if he/she has coursework or a degree in Spanish, Latin, German, French or Chinese. Students must complete the following program requirements and the content requirements of the corresponding language undergraduate degree. If the content requirements are lacking from their undergraduate degree programs, a student will be required to complete them.

Program Requirements
EDT 544 Language, Teaching and Learning I (3) (Offered in fall only)
EDT 545 Language, Teaching and Learning II (3) (Offered in spring only)
EDT 546L Reading in Foreign Language (3) (Offered in spring with EDT 545)
EDT 521A Classroom Management (2) (Offered in spring with EDT 545)

Content Course Requirements

If a student has not lived or studied in a country where his/her target language is spoken, then they have to complete a summer or semester study abroad to obtain content and fluency in their language. Study abroad coursework would be pre-approved by an advisor.

Chinese

All of these:
CHI 101,102 Elementary Chinese (4, 4)
CHI 201,202 Second Year Chinese (3, 3)
CHI 301,302 Third Year Chinese (3, 3)
CHI 401,402 Fourth Year Chinese (3, 3)
ENG 303 Introduction to Linguistics (4) *

* cross-listed as ATH 309/GER 309/SPN 303

Two of these (study abroad transfer credit may be used):
ART 186 China, Korea, and Japan (in English) (3)
CHI 251 Traditional Chinese Literature in English (3)
CHI 252 Modern Chinese Literature in English (3)
CHI 255 Drama in China and Japan in Translation (3)
CHI 264 Chinese Cinema and Culture (in English) (3)

French

Two of these:
FRE 302 Reading Narrative (3)
FRE 303 Reading the Poetic (3)
FRE 310 Texts in Context (3)

One of these (not previously taken):
FRE 302 Reading Narrative (3)
FRE 303 Reading the Poetic (3)
FRE 307L Practical French (3)
FRE 310 Texts in Context (3)

All of these:
FRE 301 Culture and Interpretation (3)
FRE 341 Conversation and Current Events in France (3)
FRE 361 French Pronunciation (3)*
FRE 410 Senior Seminar (MPC) (3)
FRE 411 French Civilization (3)
FRE 415 Advanced Composition (3)

Electives in French (399-499) to complete required 34 semester hours:
Recommended: FRE 399W French Conversation (3)

*minimum grade of B required

German

All of these:
GER 301 Advanced German Composition and Conversation (Heidelberg) (3) **or**
GER 303 Introductory Business German (3)
GER 311 Introduction to German Literature (3) (MPF IIB, IIIB, H)
GER 312 Introduction to German Literature (3)
GER 471 Applied German Linguistics (3)
One additional course from GER 400-499

One of these:
GER 321 Cultural Topics in German-Speaking Europe (3) (MPF IIIB, H)
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the USA (3) (MPF IIIB, H)

Choose at least six credit hours of 400-level German courses, including one literature course.
Any course(s) from GER 400-499

Electives to complete required 34 semester hours (not previously taken):
GER 203-GER 499
No courses in translation count in this major

Latin

Note: Study abroad is not required in Latin education

All of these:
CLS 102 Roman Civilization (3) (MPF IIIB, H)
CLS 121 Classical Mythology (3) (MPF IIB, H)
LAT 201 Intermediate Latin (3)
LAT 202 Intermediate Latin (3)

Three semester hours from these:
CLS 200-499

Complete required 34 semester hours from these:
LAT 310 Special Topics in Latin Literature (3; maximum 12)
LAT 410 Latin Seminar (3; maximum 12)

Spanish

All of these:
SPN 311 Grammar Review and Introduction to Composition (3)
SPN 312 Introduction to Spanish Language and Linguistics (3)
SPN 315 Introduction to Hispanic Literatures (3)
SPN 316 Intermediate Spanish Composition (3)
SPN 342 Advanced Conversational Spanish (3) (usually taken abroad)
SPN 351 Cultural History of Spain I (3)
SPN 352 Cultural History of Spain II (3)

SPN 361 Spanish American Cultural History I (3)
SPN 362 Spanish American Cultural History II (3)
SPN 420/430/440 Selected Topics (3)
SPN 481 Spanish Phonology and Syntax (3)*

Capstone
SPN 490 Issues in Hispanic Literature-various topics (3)

Electives - two of these:
SPN electives 451-499 (6)

* see adviser if SPN 481 is not offered

Integrated English/Language Arts program

Requirements

These three concurrently (Fall semester only):
EDT 527 Adolescent Language Arts I (3)
EDT 346A Reading Instruction for Adolescents (3)
EDT 521A Classroom Management (2)

Take in Spring Semester following EDT 527:
EDT 528 Adolescent Language Arts II (3)

Content Course Requirements

One of these:
ENG 225 Advanced Composition (3)
ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

All of these:
COM 135 Public Expression and Critical Inquiry (3)
COM 417 Methods of Teaching Speech Communication (3)
EDT 423 Literature and Other Media for Adolescents (3)
ENG 301 History of the English Language (4)
ENG 302 Structure of Modern English (4)
ENG 304 Backgrounds to Composition Theory and Research (3)
JRN 201 News Writing and Reporting I (3) **or**
JRN 101 Introduction to Journalism (3)

One of these:
ENG 131, 132, or 133 Life and Thought in English Literature (3, 3, 3)

One of these:
ENG 141, 142, or 143 Life and Thought in American Literature (3, 3, 3)

One of these:
CHI 251 Chinese Literature in English Translation (3)
CHI 252 Modern Chinese Literature in English Translation (3)
ENG 251 or 252 Life and Thought in European Literature (3, 3)
ENG 255 or 256 Russian Literature in English Translation (3, 3)
ENG 258 or 259 The Modern World Novel (3, 3)
ENG 364 Italian Humanism and Renaissance (3)
FRE 131 Masterpieces of French Culture in Translation (3)
FRE 350 Topics in French Literature in Translation (3)
ITL 364 Italian Humanism and Renaissance (3)
RUS 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3)
RUS 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3)
RUS 257 Russian Literature in English Translation: From Pasternak to the Present (3)

One of these:
ENG 336 African American Writers 1746-1877 (3)
ENG 337 African American Writers 1878-1945 (3)
ENG 338 African American Writers 1946-Present (3)
ENG 348 Ethnic American Literature (3)

One of these:
ENG 134 Introduction to Shakespeare (3)
ENG 221 Shakespeare and Film (3)
ENG 372 or 373 Shakespeare's Principal Plays (3, 3)

One of these:
COM 136 Introduction to Interpersonal Communication (3)
COM 143 Introduction to Mass Communication (3)
COM 332 Argumentation (3)
COM 389 Great Issues in American History: Rhetoric and Reality (3)
COM 437 Advocacy in Contemporary America (3)

One of these:
EDT 246A Foundations of Reading, Language, and Literacy (3)

Retention Requirements

Methods Checkpoint (for admission to EDT 527 and 528):

- Admission to appropriate adolescent language arts cohort
- Completion of or transcript credit for at least 21 credit hours of content courses in integrated language arts
- A g.p.a. of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A g.p.a. of at least 3.00 in all graduate content course work of your plan of study earned at Miami

Supervised Teaching Checkpoint (for admission to EDT 519):

- Admission to appropriate adolescent language arts cohort
- Completion of Adolescent Field Block courses and EDT 528 with g.p.a. of at least 3.00
- A g.p.a. of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A g.p.a. of at least 3.00 in all graduate content course work of your plan of study earned at Miami

Integrated Mathematics program

Requirements

These three concurrently (fall semester only):
EDT 529A Adolescent Mathematics I (3)
EDT 521A Classroom Management (3)
EDT 546A Integrated Literacy across the Content Areas (3)

Take in Spring semester following EDT 529A:
EDT 530 Adolescent Mathematics II (3)

Content Course Requirements

One of these sequences:
MTH 151 Calculus I (5) and MTH 153 Calculus I (4)
MTH 153 Calculus I (4) and MTH 251 Calculus II (4) and MTH 252 Calculus III (4)
MTH 249 Calculus II (5) and MTH 252 Calculus III (4)
MTH 251 Calculus II (4) and MTH 252 Calculus III (4)

All of these:
MTH 222 Introduction to Linear Algebra (3)
MTH 331 Discrete Mathematics (3)
MTH 408/508 Mathematical Problem Solving with Technology (3)
MTH 411/511 Foundations of Geometry (3)
MTH 421/521 Introduction to Abstract Algebra (4)
MTH 482 Great Theorems of Mathematics (3)
STA 301 Applied Statistics (3) **and** STA 401/501 Probability (3)

Six credit hours of graduate-level mathematics, statistics, or mathematics education courses approved by your academic adviser (9)

Retention Requirements

Methods Checkpoint (for admission to EDT 529A and 530):

- Admission to appropriate adolescent mathematics cohort
- Completion of transcript credit for one of the designated calculus sequences, MTH 508, and at least nine credit hours of graduate-level mathematics, statistics, or mathematics education courses approved by your academic adviser
- Content course g.p.a. at least 2.50
- Overall g.p.a. at least 3.00 in all graduate content course work in your plan of study earned at Miami

Supervised Teaching Checkpoint (for admission to EDT 519A):

- Admission to appropriate adolescent mathematics cohort
- Completion of EDT 529A, 530, and the Adolescent Field Block courses
- Completion of or transfer credit for MTH 511, MTH 521, either STA 401/501 or STA 562 and at least nine credit hours of graduate-level mathematics, statistics, or mathematics education courses approved by your academic adviser
- Content course g.p.a. at least 2.50
- Overall g.p.a. at least 3.00 in all graduate content course work in your plan of study earned at Miami

Science programs (seven areas)

Subject areas available include earth science, earth science/chemistry, life science/earth science, earth science/physics, life science, life science/physics, and physical science.

Requirements

Take in fall semester of cohort year:
EDT 531 Adolescent Science Methods I (3)

These three concurrently (spring semester only):
EDT 532 Adolescent Science Methods II (3)
EDT 521A Classroom Management (3)
EDT 546A Integrated Literacy across the Content Areas (3)

Visit this website to see the science plans of study: http://www.units.muohio.edu/eap/departments/edt/graduateprograms/index.html.

For additional information, please contact the Director of Graduate Studies.

Integrated Social Studies program

Requirements

Take this course (fall semester of cohort year):
EDT 533 Adolescent Social Studies Methods I (3)

These three concurrently (spring semester only):
EDT 534 Adolescent Social Studies Methods II (3)
EDT 521A Classroom Management (3)
EDT 546A Integrated Literacy across the Content Areas (3)

Take this course:
EDT 652 History and Philosophy of Social Studies Education (3)

Content Course Requirements

All of these:
ATH 155 Cultures in Context (4)
ECO 201 Principles of Microeconomics (3)
ECO 202 Principles of Macroeconomics (3)
GEO 111 World Regional: Patterns and Issues (3) **or**
GEO 101 Global Forces, Local Diversity (3)
POL 241 American Political Systems (4)
POL 271 International Politics (4)
PSY 111 Introduction to Psychology (4)
SOC 151 Social Relations (4)

One of these sequences:
HST121,122 Western Civilization (3, 3)
HST197,198 World History (3, 3)

One of these sequences:
AMS 205, AMS 206 Introduction: Approaches to American Culture (3, 3)
HST 111, 112 Survey of American History (3, 3)

All of these with no more than two courses below 300 level:
Two HST courses (3, 3)
Any two-course sequence from ATH, ECO, GEO, POL or SOC (3, 3)
Six credit hours of non-Western courses (7)

Retention Requirements

Methods Checkpoint (for admission to EDT 533 and 534):

- Admission to appropriate adolescent social studies cohort
- Completion of or transcript credit for at least 33 credit hours of content courses in integrated social studies
- A g.p.a. of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A g.p.a. of at least 3.00 in all graduate content course work of your plan of study earned at Miami

Supervised Teaching Checkpoint (for admission to EDT 519):

- Admission to appropriate adolescent social studies cohort
- Completion of EDT 533 and Adolescent Field Block courses with g.p.a. of at least 3.00
- Completion of or transfer credit for at least 47 credit hours of content courses in integrated social studies
- A g.p.a. of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A g.p.a. of at least 3.00 in all graduate content course work of your plan of study earned at Miami

Educational Leadership- Master of Education, M.S., Ph.D., Ed.D

For information, contact:

Director of Graduate Studies
Department of Educational Leadership
304 McGuffey Hall (513-529-6825)
www.muohio.edu/edl

These programs prepare students for leadership positions in elementary and secondary schools, central office positions in curriculum and instruction and administration, college teaching positions in administration and curriculum, and student affairs positions in higher education.

Administrative specialist licenses may be completed for elementary or secondary school principal, superintendent, specialist in curriculum and instruction and professional development.

The department also offers professional development experiences and workshops for administrators, classroom teachers, and other school personnel interested in pursuing non-degree graduate study.

Master of Education Programs

The master's degree in educational leadership is recommended for students seeking state licensure as elementary or secondary school principals. Admission requires an application from the department, in addition to the Graduate School application, and is based on your undergraduate grade point average (g.p.a.), Miller Analogies Test (MAT) or Graduate Record Examination (GRE) score, three letters of recommendation, the EDL Information Sheet, a writing sample, and an interview.

The master's degree in curriculum and teacher leadership is for students who want to improve their professional skills and take on leadership responsibilities as teachers and experts in curriculum, teaching, and learning. It can lead to a professional teaching license. Admission requires an application from the department, in addition to the Graduate School application, and is based on your undergraduate g.p.a., two letters of recommendation, and the EDL Information Sheet.

Teaching certification/licensure is generally required to earn the M.Ed. in educational leadership or curriculum and teacher leadership.

Candidates in licensure programs and curriculum and teacher leadership will be expected to complete and pass the portfolio review process at established intervals within the program. Information about the portfolio review process should be obtained from the department office.

Requirements: Educational Leadership

The Educational Leadership Masters is a 30 semester-hour graduate program designed for educators with a minimum of three years of K-12 teaching experience who wish to become school principals. Thirty hours of the curriculum are necessary for completion of a master's degree; an additional 15 hours are required for Ohio administrative licensure. This program is specially designed so teachers may complete their studies in one and a half years of part-time enrollment while continuing to work full time.

Administration strand
EDL 601 Educational Leadership Theory (3)
EDL 602 The Principalship and Change (3)
EDL 603 Organizational Change (3)
EDL 710 Internship in Educational Leadership II (3)

Foundations strand
EDL 609 Politics of Education (3)
EDL 614 Collaborative Services, Supports, and Resources for Children, Youth, and Families (3)
EDL 621 Foundations of Multi-Cultural Education (3)

Instructional strand
EDL 630 Applied Studies in Educational Administration (3)
EDL 639 Curriculum Theory (3)
EDL 645 Supervision of Instruction (3)

Post-Master's licensure:
Organizational behavior and management strand
Fifteen semester hours that emphasize problems of practice in curriculum development processes, personnel/employment relationships, school funding, school law, and pupil personnel

Requirements: Curriculum and Teacher Leadership

The Curriculum and Teacher Leadership program upholds a broad conception of leadership as a school based activity grounded in principles of social justice, critical literacy and community building as taken on by teachers in formal and informal leadership roles in their classrooms, schools and communities. The program is guided by a conception of teacher leadership that encourages and develops the potential of teachers as curriculum-makers in their classrooms, action researchers, and as critical decision-makers across the school and community environments. The program consists of 30 hours of coursework in the areas of curriculum, sociocultural foundations of education, cultural studies, and research. Coursework emphasizes solving educational problems through critical thinking about the nature of curriculum, cultural studies, action research, and reflective practice.

Curriculum Strand (9 hours)
EDL 639 Curriculum Theory
EDL 646 Curriculum Development
EDL 647 Curriculum and Cultural Studies

Note: All Curriculum courses must be taken before the Research courses (EDL 608 & 649). EDL 639 is a prerequisite for EDL 646.

Leadership Strand (3 hours): choose one of these courses
EDL 607 School Law
EDL 609 Politics in Education
EDL 614 Family-Community-School Partnerships
EDL 645 Supervision of Teaching
EDL 721 Pupil Personnel Services
EDL 723 School Finance

Research Strand (6 hours)
EDL 648 Introduction to Research in Educational Leadership
EDL 649 Action Research for Educators

Note: All Curriculum courses (EDL 639, 646 & 647) must be taken before the Research courses. EDL 608 is a prerequisite for EDL 649.

Foundations Strand (3 hours): choose one of these courses
EDL 621 Foundations of Multicultural Education
EDL 623 Philosophy of Education
EDL 625 Social Foundations of Education
EDL 629 History of Education in America

Thematic Concentration Strand (9 hours)

The 9-credit concentration is a series of coursework identified by the student in consultation with the student's advisor that follows a particular topical content area or theme. For their concentration, students are strongly recommended to take at least a minimum number of courses outside of EDL in order to broaden their educational experience into other topics and fulfill any required licensure, certification, or endorsement.

Administrative Specialist Licenses

Principal

Prerequisite for this license is a master's degree in administration. Course work includes 15 semester hours in administration.

Specialist in Curriculum and Instruction and Professional Development

Prerequisite for this license is a master's degree in curriculum, leadership, or administration. Course work includes nine semester hours in curriculum, three semester hours in educational assessment, three semester hours in staff development, and three semester hours of internship.

Superintendency

Course structure for administrative licensure for superintendent meets state licensure requirements effective September 1, 1998.

Prerequisite for this licensure program is principal licensure at the early/middle or middle childhood/adolescent to young adult level plus three years of successful experience requiring a principal's license. Course work includes 15 hours of graduate study in administration.

Master of Science: Student Affairs in Higher Education

This program prepares students for leadership positions in student affairs at the post-secondary level. Core courses address the role of the student affairs profession in higher education, student development, student cultures, higher education organizations, and ethics.

Areas of specialization include student affairs administration, student cultures, and student development.

Program Requirements
(48 semester hours)

All of these:
EDL 623 Philosophy of Education (3)
EDL 654 Foundations of Educational Research in Higher Education (3)
EDL 666 Student Cultures in the College Environment (3)
EDL 676 Introduction to Student Affairs (3)
EDL 677 Student Development Theory I (3)
EDL 706 Educational Leadership and Organizational Development (3)

Two of these:
EDL 678 Student Development Theory II (3)
EDL 679 Higher Education in the United States (3)
EDL 681 Student Affairs Administration (3)

One of these:
EDL 661 Quantitative Research in Higher Education (3)
EDL 683 Qualitative Research in Higher Education (3)

Supervised Practice:
EDL 656 Supervised Practice in Student Affairs (1-4: maximum 12)

Electives (9 semester hours)

Doctor of Philosophy: Student Affairs in Higher Education

This program prepares students for leadership positions and faculty roles in student affairs in higher education. The curriculum, planned by you and your advisor, includes a 12-credit core that address learning partnerships in higher education, college learners' experiences, college learning environments, and social and political engagement in higher education; an 18-credit research sequence; a 6-credit concentration, 9 credits of electives, and dissertation research. A written and oral comprehensive examination is required before you become a candidate for the degree. You must write and defend an acceptable dissertation before your degree is conferred.

Admission to the Student Affairs in Higher Education doctoral program requires a master's degree and is based on undergraduate and graduate grade point averages, Graduate Record Examination (GRE) scores, a personal statement, relevant experience, four letters of recommendation, and an interview. Preference is given to candidates with student affairs experience.

Doctoral Programs (Ph.D., Ed.D.): Educational Administration

Admission to the Educational Administration doctoral programs require a master's degree and is based on undergraduate and graduate grade point averages, Miller Analogies Test (MAT) or Graduate Record Examination (GRE) scores, three letters of recommendation, autobiographical

statement, and an interview. A writing sample may be required. Preference is given to applicants with elementary and secondary school experience.

Graduates assume positions of leadership in elementary or secondary schools, as central office administrators, or become professors of administration or curriculum.

The Ph.D. program, planned by you and your adviser, includes three doctoral core seminars, two major core courses, three major seminars, a five-course research sequence, elective courses, and dissertation research. A written and oral comprehensive examination is required before you become a candidate for the degree. You must write and defend an acceptable dissertation before your degree is conferred.

The Ed.D. program is for certified/licensed, practicing school leaders with at least three years of administrative experience at elementary or secondary level. Summer residency allows students to maintain their employment. Dissertation research can use either the quantitative or qualitative paradigm to add to the knowledge and understanding of important theoretical and professional issues at the elementary or secondary level of education. Doctoral credit cannot be earned as a continuing, non-degree student.

Educational Psychology- Master of Education, M.A., M.S., Specialist in Education

For information, contact:
Department Chair
Department of Educational Psychology
201 McGuffey (513-529-6621)
www.muohio.edu/edp/

The department offers master's degree programs in educational psychology and instructional design and technology. A combined master's/specialist in the education professional entry degree program is offered in school psychology.

Admission Requirements

Admission to all master's degree programs requires: (1) acceptance by the Graduate School, (2) acceptable score on the Graduate Record Examination (GRE), (3) three letters of recommendation, and (4) a brief essay on a topic pertinent to your professional reasons for pursuing the degree.

Admission to the school psychology specialist program requires: (1) acceptance by the Graduate School, (2) acceptable scores on the verbal and quantitative sections of the GRE, (3) three letters of recommendation specifically addressing your interpersonal skills and potential for advanced graduate study, (4) an essay of 500-750 words addressing your reasons for pursuing a career in school psychology, and (5) a signed statement that you have no record of conviction for a felony (state of Ohio requirement for practice in schools).

For all programs, the test scores, letters of recommendation, essay, and other relevant material should be sent to the department chair. The deadline for admission to the school psychology program is **February 1**. The deadlines for admission to the educational psychology program are November 1, February 1, and May 1.

Educational Psychology: Master of Education

This master's program has two foci: an educational focus and a psychological focus. The educational focus is for students who already have certification/licensure in a teaching area and who wish to obtain greater depth of understanding of educational issues and teaching practice. The psychological focus does not require previous licensure.

The educational focus is for persons who already possess an educational certificate/license in any content or special field and who desire to deepen and broaden their understanding and performance in areas related to education and learning methodology. They will take a sequence of courses in educational psychology and in curriculum and teaching practice. The total program requires 30 semester hours (15 hours in the core requirements and 15 in the emphasis area). The 15 credit hour educational focus sequence will be designed with advisor approval.

The psychological focus includes two options: a human development, learning, and family studies option and a general option. The option in human development, learning, and family studies allows students to focus in-depth on interdisciplinary study related to applied human development, learning, and family issues. This program requires 30 semester hours (15 hours in the core requirements and 15 in the emphasis area). In the general option, students may focus on educational measurement and research or other relevant areas. They may also obtain the Graduate Certificate for Professional Development in Assessment and Evaluation within the general option. This program requires 30 semester hours (15 hours in the core requirements and 15 hours in the option electives).

Depending on the option selected, students can complete this program in one to two years of full-time study or two to three years of part-time study.

Educational Psychology Core (for all options)
(15 semester hours)

All of these: (12 hours)
EDP 601 Advanced Educational Psychology (3)
EDP 651 Educational Research (3)
EDP 652 Educational Research Practicum (3)
EDP 667 Behavioral Statistics I (3)

One of the following: (3 hours)
EDL 621 Foundations of Multi-Cultural Education (3)
EDL 625 Social Foundations of Education (3)
EDP 603 Theories of Human Learning (3)
EDP 607 Educational Measurement and Evaluation (3)
EDP 621 Classroom Group Behavior (3)
EDP 632 Instructional Design Theories and Models (3)
EDP 635 Theories of Human Development (3)
EDP 656 Education of Individuals with Exceptionalities (3)
EDT 622 Improvement of Instruction in the Secondary School (3)
FSW/GTY 566 Later Life Families (3)
FSW 595 Advanced Survey of Family Science (3)

Educational Focus

This focus is for persons who already possess an educational certificate/license in any field and who desire to deepen and broaden their understanding and performance in areas related to education. They will take a 15 credit sequence of courses that may include the following:

EDP 603 Theories of Human Learning (3)
EDP 621 Classroom Group Behavior (3)
Curriculum and Teaching Practice Courses from EDL, EDT, EDP or other educationally focused departments

Psychological Focus

The psychological focus includes two options: a human development, learning, and family studies option and a general option. The option in human development, learning, and family studies allows students to focus in-depth on interdisciplinary study related to applied human development, learning, and family issues.

General Option

A focus area, such as educational measurement/assessment, family studies, mental health, dynamics of group processes, or early childhood education, may be selected. You may also take a wide range of course work rather than concentrating in an area. This program requires 30 semester hours (15 hours in core requirements and 15 hours in electives).

Sample Option:

Measurement/Evaluation:
EDP 607 Educational Measurement and Evaluation (3)
EDP 668 Advanced Behavioral Statistics (3)
EDP 690 Seminar in Educational Psychology (1-3)
EDP 633 Evaluation and Assessment for Instructional Design (3)
EDP 655 Theory and Problems in Educational Measurement (3)

Graduate Certificate for Professional Development: Assessment and Evaluation

The Graduate Certificate for Professional Development in Assessment and Evaluation aims to provide in-depth preparation to individuals who presently are asked (or will be asked) to provide leadership and expertise with regard to the topics of assessment and evaluation in the fields of education, health, and business. A set of three graduate courses have been selected so that participants will be able to 1) design and carry out a program evaluation and 2) design tests and analyze test data and 3) design surveys and analyze survey data.

All of these: (9 hours)
EDP 607 Educational Measurement and Evaluation (3)
EDP 655 Theory and Problems in Educational Measurement (3)
EDP 690 Seminar in Educational Psychology (3)

Development, Learning and Family Studies Option

An emphasis in human development and learning allows you to focus in-depth on applied development and learning issues. This program requires 30 semester hours (15 hours in the core requirements and 15 in the emphasis area).

All of these: (9 hours)
EDP 603 Theories of Human Learning (3) **or**
FSW 562 Family Policy and Law (3) **or**
FSW/GTY 566 Later Life Families (3)
EDP 635 Theories of Human Development (3)
EDP 640 Seminar in Applied Human Development (3) **or**
FSW 595 Advanced Survey of Family Science (3)

Two of the following: (6 hours)
EDP 621 Classroom Group Behavior (3)
EDP 669 Qualitative Research in Educational Psychology (3)
EDP 690 Seminar in Educational Psychology (1-3)
FSW 518 The Family Life Education Process (3)
FSW 551 Family Violence (3)
FSW/EDP 581 Adolescent Development in Diverse Families (3)
FSW 585 Social Work in a Diverse World (3)
FSW 591 Seminar in Family and Child Studies (1-4; max 4)
FSW 592 Families in Global Context (4)
FSW 593 Qualitative Methods in Family Research (3)
FSW 660 Family Diversity in the United States (3)
FSW 681 Parenting Theories and Applications (3)
GTY 563 Gender and Aging (3)
GTY 572 Race, Ethnicity, and Aging (3)
GTY 576 Environment and Aging (3)
GTY 603 Psychology of Aging in Everyday Life (3)
GTY 667 Policy and Politics of Aging (3)
GTY 745 Sociology of Aging (3)
GTY 767 Policy Analysis In An Aging Society (3)
KNH 571 Sport, Leisure, and Aging (4)
KNH/FSW 617 Education for Human Sexuality (3)

Instructional Design and Technology: Master of Arts and Master of Education

The primary purpose of this degree is to prepare instructional designers and educational technologists for P-12 schools, government, health care, higher education and the military. This program is one program with two faces: a M.Ed. option and a M.A. option. Prospective students who have licensure in P-12 education will most likely pursue the Master of Education (M.Ed.) option. Prospective students who are interested in working as instructional designers for non-P-12 environments such as higher education, government, military and health care will pursue the Masters of Arts (M.A.) option. The core curriculum of the program will prepare graduates to design, develop and integrate technology-based instructional media, methods, and systems which integrate research in behavioral psychology, cognitive psychology, learning theories, constructivist and critical/cultural theoretical perspectives of teaching and learning.

Admission Requirements

Admission to all master's degree programs requires: (1) acceptance by the Graduate School, (2) a vita or resume detailing education and work experience as well as personal relevant experience, (3) a brief essay (500-750 words) on a topic pertinent to your professional reasons for pursuing the degree, (4) official transcripts, and (5) three letters of recommendation from faculty or other person who can provide insight about your potential for graduate study and interpersonal skills. Those interested in pursuing the Med. Option will also need to hold current P-12 licensure and provide signed statement that you have no record of conviction for a felony (state of Ohio requirement for practice in schools).

For both options, a vita/resume, letters of recommendation, essay, and other relevant material should be sent to the department chair. The deadlines for admission are as follows:

- November 1 (Spring Admission)
- February 1 (Fall Admission and GA application)
- May 1 (Fall Admission)

Requirements: Master of Arts and Master of Education

The Master of Arts (MA) option requires a minimum of 33 credit hours (including: 3 IDT core courses, 3 Educational Psychology core courses, 4 additional IDT electives and one the thesis/thesis project course.

The Master of Education (M.Ed.) option requires a minimum of 33 credit hours (including: 5 IDT core courses, 3 Educational Psychology core courses, 1 additional IDT electives and one the thesis/thesis project course.

Depending on the option, you can complete this program in one to two years of full-time study or two to three years of part-time study.

Master of Arts Option

Instructional Design Core Courses (MA option)

All of the following:
EDP 632 Instructional Design Theories and Models (3)
EDP 633 Evaluation and Assessment for Instructional Design (3)
EDP 643 Interactive Design (3)

Educational Psychology Core (M.A. and M.Ed. 9-hours total)

One of these:
EDP 651 Educational Research (3)
EDP 667 Behavioral Statistics I (3)

One of these:
EDP 603 Theories of Human Learning (3)
EDP 635 Theories of Human Development (3)

One of these:
EDL 621 Foundations of Multi-Cultural Education (3)
EDL 623 Philosophy of Education (3)
EDL 625 Social Foundations of Education (3)
EDL 629 History of Education in America (3)

Instructional Design and Technology Instructional Track: Area of Interest Electives (12 hours)
EDP 631 Introduction to Instructional Design & Technology (3)
EDP 634 Grant Writing in Instructional Design & Technology (3)
EDP 637 Distance Learning (3)
EDP 638 Computer Networks for Education and Training (3)
EDP 639 Issues and Trends in Instructional Design and Technology (3)
EDP 641 Principles of Visual Literacy (3)
EDP 642 Video Production for Education & Training (3)
EDP 644 Foundations in 3D Design and Animation (3)

NOTE: Some electives may be taken outside of IDT, however, they must be approved by advisor.

Instructional Design Field Applications (3 hours required – 6 hours possible)
EDP 648 Project Thesis (3-6)

Master of Education Option

All of the following:
EDP 632 Instructional Design Theories and Models (3)
EDP 633 Evaluation and Assessment for Instructional Design (3)
EDP 637 Distance Learning (3)
EDP 643 Interactive Design (3)
EDP 645 Curriculum and Technology (3)

Educational Psychology Core (M.A. and M.Ed. 9-hours total)

One of these:
EDP 651 Educational Research (3)
EDP 667 Behavioral Statistics I (3)

One of these:
EDP 603 Theories of Human Learning (3)
EDP 635 Theories of Human Development (3)

One of these:
EDL 621 Foundations of Multi-Cultural Education (3)
EDL 623 Philosophy of Education (3)
EDL 625 Social Foundations of Education (3)
EDL 629 History of Education in America (3)

Instructional Design and Technology P-12 Track: Area of Interest Electives (6 hours)
EDP 631 Introduction to Instructional Design & Tech (3)
EDP 634 Grant Writing in Instructional Design & Technology (3)
EDP 638 Computer Networks for Education and Training (3)
EDP 639 Issues and Trends in Instructional Design and Technology (3)
EDP 641 Principles of Visual Literacy (3)
EDP 642 Video Production for Education & Training (3)
EDP 644 Foundations in 3D Design and Animation (3)

Instructional Design Field Applications (3 hours required – 6 hours possible)
EDP 648 Project Thesis (3-6; maximum 6)

Special Education- Master of Education

For information contact:
Department of Educational Psychology
201 McGuffey (513-529-6621)
www.muohio.edu/edp/

The degree serves two purposes: 1) to provide required coursework to lead to initial teaching license in mild/moderate special education; and 2) to provide advanced coursework for teachers already licensed in special education. Within the licensure component of the degree there are options for both educators who are currently licensed and for students who do not currently hold a teaching license in any area.

Program requirements

Pathway 1
(resulting in a Master's degree for educators already holding a current teaching license in a non-special education area):

EDP 571 Literacy Seminar: Clinical (3)
EDP 572 Literacy Seminar: Practicum (3)
EDP 578 Consultation and Collaboration in Special Education (3)
EDP 596 Behavioral Interventions: Theory, Principles, and Techniques (3)
EDP 601 Advanced Educational Psychology (3)
EDP 650 Seminar in Special Education (3)
EDP 651 Educational Research (3)
EDP 652 Educational Research Practicum (3)
EDP 667 Behavioral Statistics I (3)

Educators must have 12 total hours of reading courses; depending on the area of licensure, they may need to supplement earned hours with additional reading courses.

Pathway 2
(a Master's degree for students who do not hold a current teaching license in any area):

All courses from Pathway 1 and
Additional reading courses (6 hours)
Methods courses (6 hours)
Student teaching (12 hours)

Pathway 3
(a Master's degree for students who are currently licensed in special education):

Current curriculum

School Psychology- Master of Science, Specialist in Education

Professional Entry Program

This program leads to the specialist in education degree as well as to licensure as a professional school psychologist. A master's degree is also earned during the course of study. Assessment, intervention and consultation training; school-based practicum experiences; and a full-time supervised nine- to 10-month internship are included in this three-year program. Your program of study must be approved by the department; minor substitutions can be approved. After you complete 39 hours in the foundation component and pass a comprehensive examination, you are awarded an M.S. degree and admitted to candidacy for the Ed.S. degree. After completing requirements for the professional practice component, which includes a thesis research project, you receive an Ed.S. degree.

Foundation component (39 semester hours)
EDP 596 Theory, Principles and Techniques of Behavior Management (3)
EDP 603 Theories of Human Learning (3)
EDP 604 Role and Function of the School Psychologist (3)
EDP 611 Psychoeducational Assessment and Interventions I (5)
EDP 651 Educational Research (3)
EDP 656 Education of Individuals with Exceptionalities (3)
EDP 658 Advanced Evaluation with Evidence-Based Interventions (3)
EDP 662 Personality Theories, Measures, and Techniques (3)
EDP 667 Behavioral Statistics (3)
EDP 672 Counseling Theories & Mental Health Intervention (3)

Professional practice component (60 semester hours)
EDP 612 Psychoeducational Assessment and Interventions II (5)
EDP 650 Seminar in Special Education (3)
EDP 652 Educational Research Practicum (3)
EDP 654 Counseling & Mental Health Practicum (4)
EDP 660 Practicum in School Psychology (4)
EDP 666 Educational Community Psychology: Consulting and Interviewing (3)
EDP 695 Supervised Public School Experience for School Psychology Students (1)
EDP 795 Internship (10)
EDP 796 Internship (10)
EDP 800 Research Project I, II (Thesis) (5, 5)

English- Master of Arts, M.A. in Teaching, Ph.D.

For information, contact:
Director of Graduate Studies
Department of English
356 Bachelor Hall (513-529-7530)
www.muohio.edu/english/graduate

Admission Requirements

Admission to the Master of Arts program normally requires at least 16 hours of undergraduate credit in English and American literature beyond the required freshman course. Deficiencies may be made up after admission. Admission requires three letters of recommendation with recommendation form, a writing sample, a personal statement of intent, and approval of the department committee on admissions. Application deadline is ***January 15*** for admission in the following academic year.

Admission to the Master of Arts in Teaching (MAT) program requires a baccalaureate degree and licensure for teaching in public schools. Admission also requires a letter of recommendation from a school official, a statement of goals, and an application appointment with the Ohio Writing Project Director (513-529-5245).

Admission to the doctoral program requires an M.A. (or equivalent), three letters of recommendation with recommendation form, a writing sample, a personal statement of intent, and approval of the department committee on admissions. Application deadline is ***January 15*** for admission in the following academic year.

The Master of Technical and Scientific Communication (MTSC) is not currently accepting applications.

Requirements: Master of Arts

Program requirements include reading proficiency in a foreign language such as French, German, Greek, Italian, Japanese, Latin, Russian, or Spanish before the final examination, either tested by examination or confirmed by two years of credit in college courses or special foreign language courses designed for graduate students. Students for whom English is a second language are exempt from the foreign language requirement. Also required are the departmental distribution requirement and ENG 601, 603, and 605 as specified below. Graduate assistants teaching in the college composition program must also take ENG 731 Theory and Practice of Teaching Composition (4). Other requirements follow:

M.A. with literature concentration (thesis option): 34 semester hours, including ENG 603 and 605; six semester hours of thesis; final oral examination.

M.A. with literature concentration (without thesis): 34 semester hours, including ENG 603 and 605; final written and oral examination.

M.A. with creative writing concentration: four workshops in fiction or poetry; ENG 605 and 652; three literature seminars; six semester hours of creative thesis; final oral examination.

M.A. with composition and rhetoric concentration (thesis option): 12 hours in composition and rhetoric; ENG 601 or 603 and ENG 605; three literature seminars; experience in teaching composition; six semester hours of thesis; final examination.

M.A. with composition and rhetoric concentration (without thesis): 14 hours in composition and rhetoric; ENG 601, 603, and 605; experience in teaching composition; final written and oral examination.

Requirements: Master of Arts in Teaching

This program requires 32 semester hours including the four-week Ohio Writing Project, 12 hours of workshops from the Writing Core, nine hours of workshops chosen from the Literature Core, eight hours of mentored Classroom Application, and a final classroom-based research project and presentation.

Requirements: Doctor of Philosophy

Concentrations are offered in English and American literature and in composition and rhetoric.

Program requirements include ENG 603 and 605 and a seven-to-eight seminar Course of Study approved by the Graduate Committee. For the literature concentration, fulfillment of the departmental historical distribution requirement is expected; for the composition and rhetoric concentration, four foundation courses are required. Graduate assistants and teaching associates teaching in the college composition program must take ENG 731 Theory and Practice of Teaching Composition (4). The foreign language requirement is met by (1) reading proficiency in two foreign languages (such as French, German, Greek, Italian, Japanese, Latin, Russian, or Spanish) or by (2) reading proficiency in one modern language and six semester hours of graduate credit in the literature of the language or six semester hours of graduate credit in an approved cognate field. Also required are a comprehensive examination, written and oral, a dissertation, and oral defense of the dissertation.

Environmental Sciences- Master of Environmental Science

For information, contact:
Director
Institute of Environmental Sciences (IES)
102 Boyd Hall (513-529-5811)
www.muohio.edu/ies

Research

Faculty are active in research and public service projects, including ecological research, sustainability, stream monitoring, land use issues, pollution prevention, dispute resolution techniques for environmental problems, and water supply in developing countries.IES is also involved with the operation of a U.S. EPA test and evaluation facility.

Admission Requirements

At least a 2.75 grade point average (4.00 scale) or 3.00 in the last two undergraduate years, three letters of recommendation, letter of intent, and a current resume of education and experience are required.

Program Requirements

8. Satisfactory completion of 44 semester hours including: 24 hours in IES core courses, minimum of 14 hours in specialty electives, a minimum of six hours of interdisciplinary research leading to a thesis, practicum, or internship in a recognized environmental organization.
9. At the end of the second semester, a comprehensive examination is taken; it must be passed before proceeding with the program.
10. Satisfactory completion and defense of a thesis, practicum, or internship.

Exercise and Health Studies- Master of Science in Exercise and Health Studies

For information, contact:
Director of Graduate Studies
Department of Kinesiology and Health
106 Phillips Hall (513-529-2700)
www.units.muohio.edu/eap/knh/graduatePrograms/index.html

This program is for those interested in the cross-disciplinary study of health and exercise.

Admission Requirements

Undergraduate preparation typically includes coursework in exercise science, psychology, sociology, cultural studies, women's studies, zoology, chemistry, health, and related areas.

All applicants should have an undergraduate cumulative grade point average of at least 3.00 (4.00 scale). All applicants must submit scores from the Graduate Record Exam (GRE) general test or the Miller Analogies Test (MAT) and three letters of recommendation.

Program Requirements

Requirements include at least 15 semester hours in courses 600-level and above and at least 12 semester hours in courses offered by the department.

In the Exercise and Health Studies M.S. degree program, students may choose concentrations in exercise science or health

studies. Required courses and typical electives are listed and must be approved by your adviser.

Thesis and non-thesis tracks are offered. For the *thesis option*, you must complete 36 graduate semester hours; KNH 700 Thesis (4) and EDP 667 Behavioral Statistics (3) or another course suited to your analytical perspective; have a graduate faculty thesis adviser; and pass an oral comprehensive exit examination that includes defense of your thesis. For the *non-thesis option*, you must complete 36 graduate semester hours and pass an oral comprehensive exit examination.

Exercise Science Concentration

The graduate program in exercise science is designed for students interested in physiological, psychological, and motoric functioning in a variety of physical activity environments and conditions. Multidisciplinary coursework emphasizes exercise physiology, motor control, biomechanics, and motivation/behavior change.

The department's newly equipped human performance and motor behavior laboratories allow students and faculty to administer underwater weighing, bioelectrical impedance, exercise stress tests, respiratory, metabolic, blood lipid, blood pressure, electrocardiography, sensory functioning, motor functioning, electromyography, ground reaction force, and motion analysis, and muscle strength and endurance tests.

Career opportunities include: clinical exercise physiologist, worksite health promotion, pharmaceutical sales, biomedical research, health and fitness directors, personal training/strength and conditioning specialist, or rehabilitation (e.g., cardiac, physical). This program can also provide preparation for professional programs such as medicine or chiropractic.

Required courses
KNH 621 Critical Perspectives on Knowledge Systems in Exercise, Health, and Sport Studies (2)
KNH 622 Quantitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 623 Qualitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 654 Studies in Exercise Behavior (3)
KNH 668 Advanced Physiology and Biophysics of Human Activity (4)
KNH 681 Human Motor Control and Learning (4)
KNH 682 Laboratory Techniques in Exercise Science (2)
KNH 684 Advanced Seminar in Exercise Science (1)
KNH 688 Advanced Biomechanics (3)

Thesis option
In addition to the 36 required hours, take the following two courses:
EDP 667 Behavioral Statistics (3) **or**
another course suited to your analytical perspective
KNH 700 Thesis Preparation (1-10; 4 required; 10 towards any degree)

Health Promotion Concentration

The health promotion concentration is designed to provide breadth and depth of knowledge in the psychosocial and behavioral aspects of health across the human lifespan. The curriculum emphasizes both cultural and personal determinants of health and wellness from an ecological perspective. Coursework prepares students as program planners and coordinators of health promotion programs in community, worksite, clinical, and educational settings. A strong theoretical foundation in health education connects students to one of four foci for more in-depth study.

Required courses
KNH 611 Behavioral Approaches to Health Promotion and Disease Prevention (3)
KNH 612 Theoretical Foundations of Health Promotion and Education (3)
KNH 613 Health Communication and Education (3)
KNH 621 Critical Perspectives on Knowledge Systems in Exercise, Health, and Sport Studies (2)
KNH 622 Quantitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 623 Qualitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 562 Health Promotion, Planning and Evaluation (3)

Thesis option
EDP 667 Behavioral Statistics (3) **or**
another course suited to your analytical perspective
KNH 700 Thesis Preparation (1-10; 4 required; 10 towards any degree)

Health-Related Electives (take 12 hours within a focus area)

Nutrition and Fitness Focus
KNH 507 Food and Nutrition for the Aging (3)
KNH 508 Perinatal and Childhood Nutrition (3)
KNH 509 Nutrition for Sports and Fitness (3)
KNH 550 Special Problems (1-4) **or**
suitable elective selected with adviser
KNH 654 Studies in Exercise Behavior (4)
KNH 685 Exercise, Aging, and Health Promotion (3) **or**
suitable elective selected with your advisor

Gerontology Focus
FSW/GTY 566 Later Life Families (3)
GTY 556 Psychosocial Health and Aging (3)
GTY 568 The Aging Individual in a Changing Society (3)
GTY 609 Human Resources Foundations (3)
GTY 615 Seminar in Managerial Skills (3)
KNH 550 Special Problems (1-4)
KNH 571 Sport, Leisure, and Aging (4) **or**
suitable elective selected with your advisor

Adolescent Focus
EDP 635 Theories of Human Development (3)
FSW 565 Child Maltreatment (2)
KNH 550 Special Problems (1-4)
KNH 673 Developmental Perspectives on Youth Sport Participation (3)
KNH/FSW 617 Education for Human Sexuality (3) **or**
suitable elective selected with adviser

Public Health Focus
GTY 615 Seminar in Managerial Skills (3)
IES 531 Principles and Application of Environmental Science (3)
KNH 550 Special Problems (1-4)
KNH 544 International Health: Global Perspectives (4) **and**
KNH 545 A European Perspective: Health, Social, Economic, and Political Impacts of Health Promotion (4) **or**
KNH/FSW 617 Education for Human Sexuality (3) **or**
suitable elective selected with adviser

Family and Child Studies- Master of Science

For information, contact:
Director of Graduate Studies
Department of Family Studies and Social Work
101 McGuffey Hall (513-529-2323)
www.muohio.edu/familystudies

This program is designed to meet the increasing demand for qualified professionals to serve the needs of families and their members within a complex, rapidly changing, and globalized society. Students are prepared for careers in a variety of settings (e.g., community, educational, social service, government, and business) and for additional education in advanced fields of study (such as earning a Ph.D. in family studies or related fields). Core courses provide a strong foundation in the requisite theories and methodologies for evaluating intervention/prevention programs and creating knowledge about the development and relationships of diverse families. An internship focusing on professional development, career consideration, and ethical decision-making and practice is also required. Students select courses that will help develop their capacities for creating and disseminating knowledge in their area of interest.

Students learn to be creative professionals by completing a thesis that is of publishable quality (a number of student's have published articles in professional journals from their thesis projects). Students use data already collected by professors, work jointly with professors to collect data, or collect their own data to complete a rigorously evaluated thesis. Besides using data to complete their thesis projects, students are encouraged to develop papers to present at professional conferences, submit articles for publication, and to develop professional skills. FSW fosters professional development by encouraging students and professors to work together on projects (such as research and family life education programming). An important subcomponent of our masters program is family life education, or training in the

development of family life education materials and the implementation of family life curricula in educational programs.

Please note that the program does not include a social work, therapy, or counseling option. However, many of our graduates do enter these fields, typically after obtaining additional education.

Admission Requirements

In addition to Graduate School admission requirements, the department requires a resume, three letters of reference, and a letter of intent that includes a statement of interests, accomplishments, and professional goals. Typically, a 3.00 g.p.a. is expected. Contact the director of graduate studies or visit our Web page at *www.muohio.edu/familystudies* for details about applying.

Four conceptual areas of focus in the Master of Science in Family and Child Studies are described below. Students are encouraged to consider the match between their interests and these four identified areas of focus:

- Fostering increased understanding of the development of strengths and resilience at individual, family, and community levels of the social environment.
- Understanding how diverse families and communities face stressful circumstances and become resilient in the face of transitions and crises across the family life course.
- Understanding and developing skills for creating social science knowledge about families and communities.
- Understanding and developing prevention and intervention strategies for individuals, families, and communities.

Program Requirements

The Family and Child Studies program requires a minimum of 36 semester hours (12 hours must be 600-level) including a thesis.

Core Requirements (26-27 credit hours)
FSW 562 Family Policy and Law (3)
FSW 575 Family Theories (3)
FSW 594 Internship with Families and Children (2)
FSW 595 Advanced Survey of Family Science (3)
FSW 660 Family Diversity in the United States (3) **or**
FSW 585 Social Work in a Diverse World (3)
FSW 700A Master's Thesis: Independent Research (6)
EHS 667 Behavior Statistics (3)
EDP 667 Behavioral Statistics I (3)
EDP 651 Educational Research (3)
OR FSW 695 Applied Research Techniques in Family Studies (4)

Emphasis Requirements (select a total of 9 or 10 credit hours from the following courses):

Choose at least one of the following courses:
FSW 566/GTY 566 Later Life Families (3)
FSW 581 Adolescent Development (3)
FSW 681 Parenting Theories and Applications (3)
EDP 635 Theories of Human Development (3)

Choose the remaining Emphasis credit hours from the following courses:
FSW 518 Family Life Education Process (3)
FSW 550 Special Problems (1-4) (Various topics offered across semesters, professors, or sections)
FSW 551 Family Violence (3)
FSW 561 Marital Distress and Divorce: Implications for Family Life Professionals (3)
FSW 565 Child Maltreatment (2)
FSW 590 Professional Issues in Family Science (3)
FSW 591 Seminar in Family and Child Studies (1-4) (Various topics offered across semesters, professors, or sections)
FSW 592 Families in Global Context (4)
FSW 593 Qualitative Methods in Family Research (3)
FSW 600 Independent Reading (1-4; 4 maximum of FSW 550 and 600 combined applied to 36 credit hr. requirement)
FSW/EDL 614 Family-Community-School Partnerships (3)
FSW/KNH 617 Education for Human Sexuality (3)
FSW 620 Practicum in Family Life Education (2-4)
FSW 685 Family Systems and Stress (3)

French- Master of Arts

For information, contact:
Graduate Director
Department of French and Italian
207 Irvin Hall (513-529-7508)
www.muohio.edu/frenchitalian

Admission Requirements

All applicants must submit two letters of recommendation and a writing sample in French, which should be sent to the Graduate Director. One of these letters should be written by someone who can vouch for the applicant's abilities in the French language. The Test of English as Foreign Language (TOEFL) scores are required for international students and should be taken before February 1. The Graduate Record Examination (GRE) is recommended but not required for domestic applicants. Application review begins February 1, however, we will accept applications through March 1.

Program Requirements

The M.A. in French requires a minimum of 30 semester hours of coursework (12 hours must be 600-level), a reading list examination, and a thesis. Students may take 500-level courses only during their first year and are strongly encouraged to take 600-level courses. Six of the 30 hours may be taken outside the department in related courses at 500- or 600-level with permission from the Graduate Director; however, courses in intensive reading of foreign languages do not count. The normal length of the program is four semester plus two summers. Students are expected to take two graduate-level courses per semester. During the first two semesters, they will also enroll in the Teaching Workshop (FRE 691), which may be counted no more than twice. All students are required to take French 614, a seminar on literary and critical theory offered every other year. During summers, students work independently preparing the reading list exam, or finalizing their master's thesis. Students are expected to participate in the Dijon credit workshop during the summer where, in addition to graduate courses, they may take reading list (or thesis) hours. Students must pass a comprehensive reading list examination in their third semester of study to be in good standing. During the fourth semester of study, students draft and revise a thesis of at least 50 pages, which represents an original contribution to scholarship in the field. Candidates for the M.A. should plan to defend their thesis at the end of their second year and complete all revisions to the thesis over the second summer of study.

Geography- Master of Arts

For information, contact:
Director of Graduate Studies
Department of Geography
216 Shideler Hall (513-529-5010)
www.muohio.edu/geography

Research and Support Facilities

Computer lab with state-of-the-art GIS hardware and software, including ArcGIS and Imagine. This facility is supported by a large format (E size) color ink jet printer. There is a microclimatology/precipitation chemistry station at the nearby Ecology Research Center and three stream monitoring stations at Hueston Woods State Park. An extensive collection of aerial photos, maps, and digital data is available for graduate research support.

Admission Requirements

Six courses, including introductory human geography, introductory physical geography, cartography or GIS, a quantitative methods course, and two additional advanced courses, are generally required. Deficiencies may be made up after admission.

Geology- Master of Arts, Master of Science, Doctor of Philosophy

For information, contact:
Cathy Edwards, Administrative Assistant
Department of Geology
114 Shideler Hall (513-529-3216)
www.muohio.edu/geology

Research and Support Facilities

In addition to standard laboratory and computer equipment, the department houses research laboratories for the investigation of a variety of earth materials and processes including high- and low-temperature mineralogy/geochemistry, geomicrobiology, radiogenic and stable isotope geochemistry, and high-end computational laboratories. Many of these laboratories support material preparation and analysis using departmental instrumentation including: DC plasma spectrometer, multi-collector thermal ionization mass spectrometer, HPLC ion chromatograph, atomic force/scanning tunneling microscope, single-crystal and powder x-ray diffractometers, single crystal x-ray cameras, electrophoretic mobility analyzer, streaming potential analyzer, portable seismometers, and cathode lumniscope. Additional shared facilities on campus include microbiology laboratories, scanning and transmission electron microscopy laboratories, ICP-MS laboratory, and remote sensing and GIS computer laboratories. In addition, collaborations with numerous research laboratories and institutions provide access to facilities not available on campus. The Department maintains active field programs around the world, including a field station in Wyoming.

Admission Requirements

Prospective students must have an undergraduate major in geology or a related science, including at least one semester of college chemistry, physics, and calculus. Deficiencies in background, as determined by a faculty committee, may be made up after admission. Satisfactory scores on the verbal, quantitative, and analytical tests of the Graduate Record Examination are required. In addition, a statement of career objectives and research interests, a resume and three letters of recommendation must be provided.

Requirements: Master of Arts, Master of Science

The Master of Arts degree is a non-thesis program requiring at least 18 hours of course work in geology and 12 or more hours in graduate-level course work outside of the department. Students must pass an oral examination prior to receipt of the degree.

The Master of Science degree is a thesis program requiring a minimum of 24 semester hours of course work plus six semester hours of credit for thesis. Before the end of the first year, a formal oral presentation of the thesis proposal is required. This program culminates in the defense of a thesis based on original research.

Requirements: Doctor of Philosophy

The Ph.D. requires completion of 60 semester hours beyond the M.S. degree or its equivalent, of which at least 15 semester hours are earned through graduate-level science coursework. Before the end of the third semester of the program, Ph.D. candidates take written and oral comprehensive examinations administered by the student's advisory committee. The dissertation prospectus may be presented after the candidate has successfully passed the comprehensive examination and advanced to Ph.D. candidacy, but prior to the end of the fourth semester. The prospectus is to take the form of a proposal to an external funding agency to support the dissertation research. The prospectus must be presented in both written form and as an oral public defense. The program culminates in an oral public defense of a dissertation based on original research.

Gerontology- Master of Gerontological Studies, Doctor of Philosophy, Certificate

For information, contact:
Director of Graduate Studies
Scripps Gerontology Center
396 Upham Hall (513-529-2914)
www.units.muohio.edu/scripps/graduateprograms/index.html

The MGS and Ph.D. programs are offered through the Department of Sociology and Gerontology with support from the Scripps Gerontology Center. The Certificate Program is offered through the Scripps Gerontology Center.

Master of Gerontological Studies

Admission Requirements

Admission is based on evaluations by the graduate faculty. Applicants must have a minimum undergraduate grade point average of 3.00 on a 4.00 scale. Applicants must submit: (1) general test scores on the Graduate Record Examination (GRE), (2) a minimum of three recommendation letters evaluating the student's academic capability, potential for success in graduate studies, and professional promise, and (3) a personal statement indicating past academic and/or professional experiences, future career goals, and reasons for interest in gerontology.

Program Requirements

Core courses are offered in gerontology, with additional courses available in other departments. This program is designed for students whose interests and career goals include research or applied work in the field of gerontology.

The program requires 43 semester hours, including course work, a practicum in the field of aging, and a critical inquiry paper based on student interest.

Master's Degree Program Requirements

(43 semester hours)

All of these:
GTY 602 Perspectives in Gerontology (3)
GTY 605 Gerontology Proseminar A, B, C, D (1)
GTY 608 The Logic of Inquiry (4)
GTY 611 Linking Research and Practice (3)
GTY 641 Organizations and the Aging Enterprise (3)
GTY 667 Policy and Politics of Aging (3)
GTY 676 Program Management in Aging (3)
GTY 700 Critical Inquiry in Gerontology (1-6)
GTY 740 Graduate Practicum in Gerontology (1-12; 8 minimum)

One of the following:
GTY 609 Qualitative Research Methods (3)
GTY 708 Quantitative Methods and Statistics (4)
STA 671 Environmental Statistics (3)

Choice of electives:
GTY/SOC/WMS 563 Gender and Aging (3)
GTY 566 Later Life Families (3)
GTY/BWS 572 Race, Ethnicity and Aging (3)
GTY/ATH 576 Environment and Aging (3)
GTY 585 Long-Term Care in an Aging Society (3)

GTY 603 The Psychology of Aging in Everyday Life (3)
GTY 615 Readings in Gerontology (1-6)
GTY 620 Supervised Research (1-12)
GTY 666 Aspects of Long-Term Care: Health (3)
MGT 615 Seminar in Managerial Skills (3)
MGT 617 Seminar in Organizational Behavior (3)
MGT 654 Human Resources Management (3)
KNH 571 Sport, Leisure, and Aging (4)
KNH 685 Exercise, Aging, and Health Promotion (3)
POL 567 Public Budgeting (3)
POL 661 Proseminar in Public Administration (3)
SOC 535 Sociology of Death (3)
SOC 554 Formal Organizations (3)

Doctor of Philosophy in Social Gerontology

Admission Requirements

Admission criteria include undergraduate and graduate grade point averages, performance on the Graduate Record Examination (GRE), a letter or statement describing career objectives and areas of interest in gerontology, an interview, and letters of recommendation. Applicants to the doctoral program may include those who have earned a B.A. and those who have already earned a master's degree. Those entering with a bachelor's degree are required to begin their studies by fulfilling the current core requirements for the Master of Gerontological Studies (MGS) Program. Prior to completion of the MGS degree, students may apply for competitive admission to the doctoral program. Students entering with a master's degree will work with faculty to determine which MGS core courses must be taken in preparation for the doctoral program.

Program Requirements

In addition to the general requirements specified by the Graduate School, requirements for the Ph.D. in Social Gerontology include 60 post-master's degree credit hours consisting of 34 credit hours of course work; satisfactory performance on oral and written qualifying examinations; submission of an acceptable dissertation; and satisfactory performance on a final oral examination (dissertation defense).

Required courses
GTY 609 Qualitative Research Methods (3)
GTY 702 Knowledge Construction and Advanced Theory (3)
GTY 705 Communicating Gerontological Knowledge (3)
GTY 718 Statistical Modeling in Gerontology (3)
GTY 745 Sociology of Aging (3)
GTY 850 Dissertation Research (1-16; minimum 16, maximum 60)

Elective courses (include, but are not limited to the following)
GTY 603 The Psychology of Aging in Everyday Life (3)
GTY 708 Quantitative Methods and Statistics (4)
GTY 709 Advanced Qualitative Research (4)
GTY 715 Readings in Gerontology (1-6)
GTY 720 Individual Investigation (1-6; maximum 6)
GTY 747 Demography and Epidemiology of Aging (3)
GTY 750 Special Topics in Advanced Quantitative Methodology in Aging Research (1-4; maximum 20)
GTY 767 Policy Analysis in an Aging Society (3)

Certificate Program

This certificate program is available to students who have been admitted to the Graduate School and have met program prerequisites. It must be completed within five years of the date the first course was taken toward the certificate, and it is awarded upon completion of this program and a graduate degree.

This program offers (1) a general background in aging processes, problems, and issues, (2) methods of problem solving and program evaluation, and (3) in-depth study of various topics in aging.

Certificate Program Requirements
(15 semester hours)

Both of these:
GTY 602 Perspectives in Gerontology (3)*
GTY 740 Graduate Practicum in Gerontology (2-3) **or**
GTY 620 Supervised Research or Reading on Selected Topics in Gerontology (2-3)

* Foundation course; take as early as possible.

Nine to 10 semester hours from these:
GTY/SOC/WMS 563 Gender and Aging (3)
GTY 566 Later Life Families (3)
GTY/BWS 572 Race, Ethnicity and Aging (3)
GTY 576 Environment and Aging (3)
GTY 585 Long-Term Care in an Aging Society (3)
GTY 603 Psychology and Aging (3)
GTY 608 The Logic of Inquiry (4)
GTY 609 Qualitative Methods (3)
GTY 611 Linking Research and Practice (3)
GTY 641 Organizations and the Aging Enterprise (3)
GTY 666 Aspects of Long-Term Care: Health (3)
GTY 667 Policy and Politics of Aging (3)
GTY 676 Program Management in Aging (3)
KNH 571 Sport, Leisure, and Aging (4)
KNH 685 Exercise, Aging, and Health Promotion (3)

History- Master of Arts, Doctor of Philosophy*

For information, contact:
Director of Graduate Studies
Department of History
254 Upham Hall (513-529-5121)
This program is not currently accepting applications for the Doctor of Philosophy.

Admission Requirements

Combined Bachelor of Arts/Master of Arts Program

An undergraduate sophomore history major who has completed at least 15 semester hours of history courses (excluding Advanced Placement credits) with a grade point average (g.p.a.) of 3.75 or above in those history courses may file a preliminary indication of interest statement for this program with the director of graduate studies. A Graduate Record Examination (GRE) general test should be taken in the fall of the junior year, and formal application to the program must be made by Feb. 1 of the same year.

Admission requirements include: g.p.a. of 3.50 or better with 3.70 or better in the history major, completion of 116 undergraduate semester hours (or equivalent) by the beginning of fall semester of the senior year, and GRE scores above 500 in verbal and analytic sections.

An application for a graduate assistantship in the fifth year of study may be submitted when the bachelor's degree is completed.

Master of Arts

You must have an undergraduate g.p.a. of at least 3.00 with successful completion of undergraduate history courses. You must submit scores from the GRE general test (subject test in history is optional), a statement about your field of interest and career objectives, an academic writing sample, and three letters of recommendation.

Program Requirements

Master of Arts

Select a field of study from the following: origins and history of the United States, Europe since 1500, gender and comparative women's history, or world and comparative history.

Thirty-six semester hours are required, including HST 702 Research Seminar (3), HST 793 Historical Methods (3), HST 794 History and Theories (3), three Readings Colloquia in the History department (9), and three other courses including one from another department (9). These additional courses could be 500-level courses or other departmental colloquia.

For students seeking world and comparative history as their major field, HST 760 World Theories (3) is required. For students choosing gender and comparative women's history, one course, whether offered in History or in another department, must treat theoretical issues, either feminist theory or another aspect of gender theory

Language requirements for M.A. students are determined by faculty in the major field; hours taken for licensure in a language do not count toward a degree. An advanced course in a research-relevant language may be taken with the adviser's approval and may count as an "outside the department" colloquium for the M.A. degree.

A thesis/project or examination (non-thesis) option is offered. The *thesis/project option* requires that the student produce a substantial thesis or project involving original research. Nine semester hours of thesis/project credit are required, with an oral examination upon completion. The *examination (non-thesis) option* requires that the student take a comprehensive final examination (written and oral) in the major field in the last six weeks of the semester in which the students completes course work. Students in the examination option must take one 600-series "Studies in History" (independent study) dedicated to examination preparation (3).

Graduate assistants are required to enroll in HST 840 College Teaching of History Surveys (2) which is offered each year during the week before the fall semester begins; and in HST 694 Methods in History Teaching (1) during each semester.

Doctor of Philosophy (Applications are not currently being accepted for this degree program)

The major field is selected from either Origins and History of the United States or Europe Since 1500. Students also gain competency in one minor field, chosen from origins and history of the United States, Europe since 1500, gender and comparative women's history, or world and comparative history

Sixty semester hours beyond the master's degree are required. At least 30 hours must be in course work other than the dissertation (courses numbered 500 or above). Those 30 hours will include the following: at least 12 hours in the major field and nine hours in the minor field with a minimum of four Readings Colloquia among those 21 hours; HST 703 Doctoral Workshop (6 hours); and two courses in other departments (6). At least 16 hours of HST 850 Dissertation must be completed. Students who enter the Ph.D. program with master's degrees from other institutions must take HST 702 Research Seminar (3), HST 793 Historical Methods (3), and HST 794 History and Theories (3), or show evidence of completion of equivalent courses.

Graduate assistants and teaching associates are required to enroll in HST 840 College Teaching of History Surveys (2) which is offered each year during the week before the fall semester begins; and in HST 694 Methods in History Teaching (1) during each semester.

Doctoral students are required to demonstrate competence in a second language; hours taken for certification in a language do not count toward a degree.

Mathematics- Master of Arts, Master of Arts in Teaching, Master of Science

For information, contact:
Director of Graduate Studies
Department of Mathematics
123 Bachelor Hall (513-529-5818)
http://unixgen1.mcs.muohio.edu/~mathematics/

Admission Requirements

An undergraduate major in mathematics or statistics or permission of the director of graduate studies is required.

Requirements: Master of Arts
(32 semester hours)

Required courses
MTH 591 Introduction to Topology (3)
MTH 621 Abstract Algebra I (4)
MTH 622 Abstract Algebra II (3)
MTH 641 Functions of a Real Variable (4)

Two of these:
MTH 638 Advanced Graph Theory (3)
MTH 651 Functions of a Complex Variable (4)
MTH 691 Topology (4)

Thesis is optional.

Requirements: Master of Science
Option I (32 semester hours)

MTH 522 or 622, 541 or equivalent plus 12 semester hours chosen from Groups A and B with at least one course from each group:

Group A
MTH 621 Abstract Algebra I (4)
MTH 641 Functions of a Real Variable (4)
MTH 651 Functions of a Complex Variable (4)
MTH 691 Topology (4)

Group B
MTH 632 Advanced Optimization (3)
MTH 638 Advanced Graph Theory (3)
STA 663 Introduction to Applied Probability (3)
STA 664, 665 Theory of Statistics (3, 3)

Each program may contain course work in related fields such as economics, physics, psychology, decision sciences, and computer science.

Your program must be approved by the graduate committee; 15 of the 32 semester hours must be 600-level. No thesis required.

Option II Operations Research Option
(32 semester hours)

All of these:
CSE 571 Simulation (4)
MTH 532 Optimization (3)
STA 663 Introduction to Applied Probability (3)

Two of these:
MTH 522 Matrices and Linear Algebra (4)
MTH 537 Game Theory and Related Topics (3)
MTH 538 Theory and Applications of Graphs (3)
MTH 539 Combinatorics (3)
MTH 553 Numerical Analysis (3)

One of these:
STA 563 Regression Analysis (4)
STA 583 Analysis of Forecasting Systems (3)

One of these:
MTH 632 Advanced Optimization (3)
MTH 638 Advanced Graph Theory (3)

Nine additional hours of 600-level department courses including at least one MTH course and at least one STA course. No thesis required.

Requirements: Master of Arts in Teaching

This is primarily a summer program for certified/licensed teachers. Courses are offered on a three-year revolving basis in the summer terms. Required are 30 semester hours including: MTH 508, 604, 605, 606, 607, STA 609, or approved alternatives. Twelve additional hours of approved electives are required to continue to improve the candidate's ability to teach mathematics.

Microbiology- M.A. in Teaching, M.S., Ph.D., Certificates in Ecology & Molecular Biology

For information, contact:
Director of Graduate Studies
Department of Microbiology, 32 Pearson Hall (513-529-5422)
www.cas.muohio.edu/micro

Research and Support Facilities

The department provides excellent research facilities and modern instrumentation that supply resources for flow cytometry, DNA sequence analysis, bioinformatics, microarrays, computer facilities, high performance liquid chromatography, fluorescence microscopy, and access to confocal scanning and transmission electron microscopy.

Admission Requirements

Admission is based on evaluations of each applicant by the department graduate studies committee and faculty approval. You must provide the admission committee with: (1) an academic record of undergraduate and graduate performance, (2) scores of the Graduate Record Examination (GRE), (3) three letters of recommendation, and (4) a one to two page statement describing research and career goals.

A personal interview is encouraged for M.S. and Ph.D. applicants. The department accepts students with a good background of college study in the biological sciences and chemistry with a foundation in microbiology.

Research opportunities and facilities are available in the major areas of these disciplines: microbial genetics, immunology, pathogenic microbiology, microbial physiology, microbial ecology, molecular biology, bioinformatics, and animal virology.

Requirements: Master of Science
(30 semester hours)

The Master of Science in Microbiology requires a minimum of 30 semester hours in graduate credits. Students must complete and demonstrate proficiency in at least one course chosen from each of groups I-IV listed below:

Group I - Infection and Immunity:
MBI 505 Pathogenic Microbiology (4)
MBI 514 Immunology Principles (3)
MBI 515 Immunology Principles and Practice (4)
MBI 535 Medical Mycology (3)

Group II – Physiology and Ecology:
MBI 525 Microbial Physiology (4)
MBI 575 Microbial Ecology (3)

Group III – Genetics and Molecular Biology:
MBI 545 Microbial Genetics (3)
MBI 605 Advanced Molecular Biology (3)
MBI 585 Bioinformatic Principles (3)

Group IV – Virology and Cell Biology:
MBI 564 Human Viruses (3)
MBI 606 Advanced Cell Biology (3)
MBI 595 Bacterial, Cellular and Developmental Biology (3)

Master's students must also fulfill the following requirements.

- Complete a minimum of four hours of didactic courses at the 600-level or above.
- Enroll in Graduate Seminar (MBI 690) every semester.
- Pass an oral defense of your thesis proposal, approved by a thesis committee of graduate faculty.
- Conduct a research project approved by the thesis committee and present the project as a written dissertation and in a public seminar.
- Pass an oral examination by the thesis committee in defense of your thesis.

As a research project that leads to preparation and successful defense of your thesis is an important component of this program, additional course work may be required by the student's advisor or thesis committee.

Requirements: Master of Arts in Teaching in Biological Sciences
(35 semester hours)

For more information about requirements, admission, and program description go to Miami University Graduate programs at: http://www.miami.muohio.edu/graduate/programs/bio.cfm or visit the Biological Sciences field of study in this Graduate Bulletin.

Requirements: Doctor of Philosophy

The degree of Doctor of Philosophy in Microbiology requires a minimum of 60 semester hours in graduate credits beyond the M.S. degree or its equivalent. Students entering with an M.S. must complete courses to ensure proficiency in each of the four groups required for the M.S. degree program. Students entering with only a baccalaureate degree must complete courses as stated for the M.S. degree program as part of the 30-hour requirement to meet the equivalency of the M.S. degree.

Doctoral students must also fulfill the following requirements:

- Complete a minimum of nine hours of didactic courses (600-level or above).
- Enroll in Graduate Seminar (MBI 690) or Molecular Biology Seminar (MBI 650) every semester.
- Pass a written and oral comprehensive examination administered by a committee of graduate faculty.
- Pass an oral defense of your dissertation proposal, approved by a dissertation committee of graduate faculty.
- Conduct a research project approved by the dissertation committee, present the project as a written thesis and in a public seminar, and submit a manuscript based on the project for publication in a refereed journal.
- Pass an oral examination by the dissertation committee in defense of your dissertation.
- Teach one semester of an introductory lecture course in microbiology under the supervision of a member of the microbiology faculty.

As the emphasis of this program is on research leading to preparation and successful defense of the dissertation, the adviser and dissertation committee may require specific course work, as they deem appropriate.

Certificate Programs in Ecology and Molecular Biology

In addition to the general requirements described above, M.S. students may be eligible for a certificate in Ecology, and Ph.D. students may be eligible for certificates in Ecology or Molecular Biology by taking additional specific formal coursework. Certificate requirements are listed elsewhere under the Ecology and Molecular Biology headings.

Molecular Biology- Certificate

For information, contact the director of graduate studies in one of these departments:

Department of Botany
316 Pearson Hall (513-529-4200)
www.cas.muohio.edu/botany/bot/botgrad.html

Department of Chemistry and Biochemistry
160 Hughes Laboratories (513-529-2813)
http://chemistry.muohio.edu/

Department of Microbiology
32 Pearson Hall (513-529-5422)
www.cas.muohio.edu/micro/grad

Department of Zoology
212 Pearson Hall (513-529-3100)
http://zoology.muohio.edu/zoo/graduate

This certificate program is available to students who have been admitted to the Graduate School and have met program prerequisites. It is interdepartmental, drawing from the faculty of botany, chemistry and biochemistry, microbiology, and zoology. While based in one department, you have the opportunity to draw on the expertise, equipment, and course offerings of each of these departments.

Certificate Program Requirements

Core courses
CHM 533 Biochemistry (3)
BOT/MBI/ZOO 605 Advanced Molecular Biology (3)
BOT/MBI/ZOO 606 Advanced Cell Biology (3)

Molecular biology seminar (BOT/MBI/ZOO 650) requirement each semester

Department requirement
Generally, two to three additional courses required by your major department.

Music- Master of Music

For information, contact:
Director of Graduate Studies
Department of Music
Presser Hall (513-529-3014)
www.muohio.edu/music

Admission Requirements

Music Performance Major

In addition to the Graduate School requirements, the department requires the following to be sent to the director of graduate studies:

1. Undergraduate courses equivalent to a bachelor's degree in music performance.
2. Brief statement describing the personal and professional objectives to be served by a master's degree from Miami University.
3. Letters from three people recommending your admission to graduate study in music.
4. Live audition of performance in the principal performing medium is strongly recommended; a high quality DVD or CD may be submitted with approval of the director of graduate studies if travel is impossible for the applicant. Audition repertoire for voice students must include works in English, German, French, and Italian. Additional supportive information is considered.

Music Education Major

In addition to the Graduate School requirements, the department requires the following to be sent to the director of graduate studies:

1. Undergraduate courses equivalent to a bachelor's degree in music education plus state certification/licensure (can include certification/licensure in another state).
2. A copy of the state certification/licensure (can include certification/licensure in another state).
3. A 600-800 word essay describing: (a) your philosophy of music education and how you put that into practice in your most recent teaching position, and (b) your personal and professional objectives to be served by a master's degree from Miami University.
4. Letters from three people recommending your admission to graduate study in music.
5. Music education majors are required either to complete a live audition or to submit an audio or video recording demonstrating musicianship on their principal instrument or voice (not conducting). Repertoire is the choice of the applicant, and accompaniment is not required. The recording must have been produced within the past five years and must be labeled with the date and a list of its contents. Audition repertoire for voice students is three songs or arias in two languages, representing a variety of styles.
6. A video recording (20-30 minutes in length) of a recent rehearsal or music class. The primary focus of the recording should be on the teacher rather than on the students, and the recording should be of a single, uninterrupted class. Please do not include more than 5-7 minutes of warm-up activities.
7. Prior full-time teaching experience is required.

Continuing Status for Music Performance and Music Education Majors

For music performance majors, a diagnostic test is given early in the graduate program to confirm prerequisite competence in the following areas: music history, music theory, and sight singing and dictation.

For music education majors, transcripts are reviewed to evaluate baccalaureate competency in music history, music theory, sightsinging and dictation, piano proficiency and music education. A diagnostic test and/or additional course work may be necessary.

Means for removing deficiencies are recommended by graduate faculty. To remain a candidate for the master's degree, these deficiencies must be removed by the end of two semesters of study.

Recital Requirement for Music Performance

To fulfill degree requirements for MUS 690 Graduate Recital:

1. Register for at least two credit hours of MUS 690 (either one credit during two terms or two credits during one term) with the major applied music instructor.
2. Perform the complete recital for a three-member jury at least three weeks prior to the scheduled public performance date. The jury consists of the major applied music instructor, one other faculty member from the same applied music division, and one member of the graduate studies committee. The jury decides (by simple majority vote) if you are adequately prepared for the public performance.
3. Present the public performance in a Miami University performance venue. The jury grades (by simple majority vote) if your recital passes or fails. The major applied music instructor assigns a letter grade for the recital. A grade of B or better is required for the degree.

4. If the public performance is failed, the procedure above is repeated no earlier than the next term in which the student is enrolled. The applied music instructor decides the repertoire content of the second performance. Failure of a second performance results in elimination from degree candidacy.

Exit Procedure

Music Education and Music Performance Majors

In addition to course requirements, a research project and an oral exam given by the graduate faculty are required. Guidelines for both are available in the Department of Music office. The research project requirement, MUS 611, is fulfilled with either a lecture/recital or a research paper.

The oral exam is administered after all degree work, proficiency requirements, and lecture/recital or research documents are completed. The exam content includes the major field of study, music theory, and music history. It may be attempted twice; content of the second exam will comprise areas identified as deficient or failed in the first exam. The second attempt may not be scheduled until the end of the next semester.

Program Outlines

Music Performance Major (except vocal)
(33 semester hours)

Special requirements: A full-time graduate student must participate in a major ensemble each semester of residency. A pianist may meet this requirement by accompanying.

All of the following:
MUS 611 Research Project (3)
MUS 621 Graduate Research in Music (3)
MUS 644 Applied Music (8)
MUS 661 Graduate Analysis (3)
MUS 682 (2 + 2) **or**
MUS 684 Repertory (4)
MUS 690 Recital (including pre-performance hearing) (2)
Graduate level course in Musicology (3)
Ensemble: band or orchestra; for pianists, chamber music (3-6)
Advised music elective (4)

Music Performance Major–Vocal
(33 semester hours)

Special requirement: A full-time graduate student must participate in a major ensemble each semester of residency.

All of the following:
MUS 520 Opera Coaching (1)
MUS 611 Research Project (3)
MUS 621 Graduate Research in Music (3)
MUS 630O Opera Production (2)
MUS 644 Applied Music (8)
MUS 661 Graduate Analysis (3)
MUS 682 (2 + 2) or MUS 684 Repertory (4)
MUS 690 Recital (including pre-performance hearing) (2)
Advised music elective (4)
Graduate level course in musicology (3)

Music Education Major
(34 semester hours)

Music education

All of the following:
MUS 611 Research Project (3)
MUS 626 Foundations of Music Education (3)
MUS 627 Recent Developments in Music Education (3)
MUS 628 Research in Music Education (3)

Music core

All of the following:
MUS 501 Advanced Studies in Music Theory (3)
MUS 502 Arranging (3)
MUS 642 Applied Music (2+2) *
MUS 640 Concepts in Music History (3)

* Note: Principal instrument or secondary applied with focus on pedagogy and performance.

Electives

Nine hours from the following:
MUS 504 Wind Band/Ensemble Literature (3)
MUS 505 Choral Literature (3)
MUS 610 Special Project (2) or
MUS 642 Applied music (2), optional 3rd semester
MUS 622 Teaching Elementary Music (3)
MUS 623 Integrating Multiculturalism into Music Education (3)
MUS 635 Advanced Wind Band/Ensemble Conducting (2)
MUS 636 Advanced Choral Conducting (2)
Workshops for music educators: Music Technology courses, Orff-Schulweck Teacher Training, and
School of Education courses (6 credits maximum)

Paper and Chemical Engineering- Master of Science

For information, contact:
Director of Graduate Studies
Department of Chemical and Paper Engineering
064 Engineering Building (513-529-0760)
www.eas.muohio.edu/departments/pce/graduateprogramfolder/

Research and Support Facilities

The department's equipment includes a highly instrumented papermaking machine, stock preparation equipment, complete paper testing laboratories, pulping digesters, process control laboratory, biochemical engineering laboratory, environmental laboratory, chemical engineering laboratory, electrochemical laboratory, and solar cell research laboratory. Students also have access to the university's scanning electron microscope and state-of-the-art micromolecular spectroscopy laboratory.

Admission Requirements

You must have an undergraduate education in a science or engineering field, and must provide: (1) academic record of undergraduate performance; (2) scores on the Graduate Record Examination (GRE); (3) three letters of recommendation; and (4) written statement of purpose for seeking a master's degree in paper and chemical engineering from Miami University.

Program Requirements

Students are required to take 24 semester hours of courses (this excludes PCE600 and PCE700). Courses are freely chosen by the student and advisor, but the chosen program should show some coherence toward a particular area of concentration, namely Biochemical, Environmental and Paper. All students are required to take PCE 600, Graduate Seminar, for each semester of residence. In addition, all Students are required to take PCE 700, Thesis Research, for 6 credits (PCE 710 Industrial Practicum may be used with department approval). Students planning a general program in the department can design their course selection with their advisor.

You must: (1) complete a total of 36 semester hours with at least 24 semester hours of graduate credit in paper science and engineering or related courses approved by the department; (2) complete a research thesis (eight to 16 hours credit) or the analysis and solution of an industrial problem (six to 12 hours credit); and (3) pass a final examination.

Philosophy- Master of Arts

For information, contact:

Director of Graduate Studies
Department of Philosophy
212 Hall Auditorium (513-529-2440)
www.units.muohio.edu/philosophy/grad_program/index.shtml

Research and Support Facilities

In addition to university resources, the department has a lecture series and an extensive library, which is especially strong in books on feminist thought. Computers are available for philosophy graduate assistants to use for course work.

Admission Requirements

Admission requirements include three letters of recommendation, some upper-level undergraduate course work in philosophy that shows you have the ability to benefit from a master's program in philosophy, Graduate Record Examination (GRE), a statement of purpose, and a writing sample.

Program Requirements
(46 semester hours)

This program includes a minimum of 10 graduate courses in philosophy plus two research seminars. This is typically done in two years by taking three graduate courses each fall semester and two graduate courses plus a graduate research seminar each spring semester.

For the research seminar, students select one essay from their courses each year to develop into an extended paper worthy of submission for publication, and defend that paper in an oral exam. While the exam focuses on the paper, it also tests the student's mastery of those fields of philosophy related to the paper.

Physics- Master of Science

For information, contact:
Director of Graduate Studies
Department of Physics
133 Culler Hall (513-529-5625)
www.muphysics.com/prospective-students/graduate-programs/

Research

The department has ongoing experimental research programs in atomic physics, atmospheric physics, magnetic materials, photonic band gap materials, ceramic materials, and biophysics. Theoretical and computational work is done in quantum optics, atomic physics, astrophysics, and phase transitions. Physics education is another area of active study.

Program Requirements

For the *thesis option,* a minimum of 30 semester hours of graduate course work, research, and thesis credit is required. You must complete at least two 600-level courses in physics other than PHY 610 and a minimum of six hours of PHY 700. Before registering for PHY 700, you must write a thesis proposal and defend it before your thesis committee. Subsequent completion and defense of the thesis are required.

For the *non-thesis option, a* minimum of 36 semester hours of graduate credit is required. You must complete at least four 600-level courses in physics other than PHY 610. Credit earned in PHY 700 may not be counted toward the minimum 36 semester hours. The student must also pass a comprehensive examination for the non-thesis option.

For the *thesis or non-thesis option,* you are expected to show proficiency in the areas of quantum physics, classical mechanics, electromagnetic theory, statistical physics, and mathematical, computational, and laboratory techniques used in physics. Evidence of proficiency is successful completion of courses at 500- or 600-level or equivalent. Graduate course work is selected in consultation with the thesis director (for the thesis option) and graduate program director. Your program of study must be approved in writing by the graduate program director.

Political Science- Master of Arts, Master of Arts in Teaching, Doctor of Philosophy

For information, contact:
Director of Graduate Studies*
Department of Political Science
218 Harrison Hall (513-529-2000)
www.units.muohio.edu/politicalscience

**This program is not currently accepting applications for the Master of Arts in Teaching or the Doctor of Philosophy.*

Admission Requirements

Master of Arts and Master of Arts in Teaching

You may enter these programs in the fall or spring semester; apply by **March 1**. Admission requirements include: (1) at least 18 semester hours of undergraduate work in political science or at least 12 semester hours in political science and 12 in other social sciences, including a survey course in the American political system or introduction to political science; (2) at least a 3.00 (4.00 scale) grade point average (g.p.a.) in the above undergraduate course work; (3) three letters of recommendation; (4) Graduate Record Examination (GRE) general test scores; (5) a letter or statement describing career objective and fields of interest in political science.

Doctor of Philosophy

You may enter this program in the fall or spring semester; apply by **March 1**. Admission requirements include: (1) a master's degree in political science or its equivalent in course credits; (2) g.p.a. of at least 3.20 (4.00 scale) in prior graduate work; (3) three letters of recommendation; (4) GRE general test scores; (5) a letter or statement describing career objective and fields of interest in political science.

Requirements: Master of Arts

Requirements include 32 semester hours of work with at least a 3.00 g.p.a., including POL 606 and an oral defense of a research tutorial project. The research tutorial project requires researching the broader literature of political science, identifying its significance to the study of political science, and responding to general questions about the research tutorial experience in a professional manner appropriate to the degree. In lieu of a research tutorial project, a master's thesis may be written and defended. All students must obtain Human Subjects Certification.

Requirements: Master of Arts in Teaching

Requirements include 32 semester hours of work with at least a 3.00 g.p.a., including POL 606 and no more than six hours in education courses, and an oral defense of a research tutorial project.

The research tutorial project requires researching the broader literature of political science, identifying its significance to the study of political science, and responding to general questions about the research tutorial experience in a professional manner

appropriate to the degree. In lieu of a research tutorial project, a master's thesis may be written and defended.

Requirements: Doctor of Philosophy

The Ph.D. is offered in four fields: American politics, comparative politics, international relations, and public administration and policy analysis.

Requirements include a minimum of 60 semester hours beyond the master's degree (up to 30 may be dissertation credit) of which at least 48 must be earned at Miami University, including POL 605, 606, and 607; preparation in two fields (minor field preparation is optional); proficiency in one research tool (language or empirical analysis); satisfactory performance on a written and oral comprehensive examination in the two chosen fields; submission of an acceptable dissertation; satisfactory performance on a final oral examination (dissertation defense). All students must obtain Human Subjects Certification.

Population and Social Gerontology- Master in Gerontological Studies

For information, contact:
Director of Graduate Studies
Scripps Gerontology Center
395 Upham Hall (513-520-2914)
http://www.scripps.muohio.edu/

Master's applicants include those who enter with a Bachelor's degree or equivalent. Applicants who are citizens of North America or EU member nations will apply to Miami University. Applicants who are citizens of Asia and the Pacific Region, Africa, Central/South America and elsewhere will apply to Mahidol University. Admission criteria for applicants through Miami University include undergraduate grade point average, performance on the Graduate Record Examination (GRE), a letter or statement describing career objectives and areas of interest in population and gerontology, an interview, and letters of recommendation.

This is a fully integrated two-year program, during which all students who enter together will follow the same program. The first year will be spent at Miami University with course work focusing on social gerontology as offered in the currently approved Master in Gerontological Studies (MGS) program. In the summer after the first year, students will have a supervised field placement or research practicum to be spent either in the U.S. or in Thailand. Credit hours for the internship will range from 5 to 10 (5 minimum). Course work during the 2nd year will be spent at Mahidol University with focus on research methods, cross-cultural contexts, program evaluation, and demography. Requirements include 57 graduate credit hours (including 5- to 10-credit hour practicum and thesis hours); submission of an acceptable thesis; and satisfactory performance on a final oral examination (thesis defense).

Program requirements

Required courses (Miami University):
GTY 602 Perspectives in Gerontology (3)
GTY 605 Gerontology Proseminar A, B, C, D (1)
GTY 608 The Logic of Inquiry (4)
GTY 667 Policy and Politics of Aging (3)
GTY 740 Graduate Practicum in Gerontology (5-10; minimum 5 if completed at Miami University)

Select 3 from the following list:
GTY 563 Gender and Aging (3)
GTY 572 Race, Ethnicity, and Aging (3)
GTY 576 Environment and Aging (3)
GTY 585 Long-Term Care in an Aging Society (3)
GTY 611 Linking Research and Practice (3)
GTY 684 Global Aging (3)
GTY 686 Global Health and Health Care Systems (3)
GTY 745 Sociology of Aging (3)

Required courses (Mahidol University):
PRRH 550 Substantive Demography (3)
PRRH 554 Techniques of Demographic Analysis (3)
PRRH 565 Statistics for Social Analysis (3)

Select 2 from the following list:
PRRH 520 Reproductive Health (3)

Psychology- Master of Arts (requirement toward Ph.D. only), Doctor of Philosophy

For information, contact:
Director of Graduate Studies
Department of Psychology
100 Psychology Building (513-529-7224)
www.units.muohio.edu/psychology/grad.html

For information on school psychology, see the educational psychology section.

Admission Requirements

You may enter the program first semester only; apply by **December 1** for the clinical psychology program and **January 1** for the programs in social psychology and brain and cognitive science. Minimum requirements include at least one course in mathematics, one in statistics, and one laboratory course in psychology; a 3.00 grade point average (4.00 scale) in the last two undergraduate years; three letters of recommendation; and acceptable scores on the aptitude test of the Graduate Record Examination (GRE).

Requirements: Master of Arts

The master's degree, offered only as a requirement toward the Ph.D., requires a minimum of 30 semester hours, including 24 semester hours of course work and research plus six hours of thesis. Requirements include PSY 601, 602 603, 604, 690, 692, 700, and other courses depending on the area of concentration and background. There is no terminal master's degree program.

Requirements: Doctor of Philosophy

The M.A. and Ph.D. are offered in the areas of clinical psychology, social psychology, and brain and cognitive science.

Doctoral status is granted by vote of the graduate faculty based upon evaluations of your academic performance, research capability, and professional qualities. This vote is normally taken upon successful completion of the master's thesis.

Requirements for the Ph.D. include a minimum of 90 semester hours: 30 hours for the master's degree, 44 hours of course work and research, and 16 hours for the dissertation. Required courses include those listed above for the master's degree, continuing research participation in PSY 692, 710, and 850, and additional courses and other requirements depending on your area of concentration and background. In addition to the requirements of the department and graduate school, each program has specific course requirements.

You must demonstrate motivation and ability to accomplish independent and original research, high academic performance, and professional qualities and standards of conduct appropriate to the discipline.

Spanish- Master of Arts

For information, contact:
Director of Graduate Studies*
Department of Spanish and Portuguese
268 Irvin Hall (513-529-4500)

www.muohio.edu/spanport

**This program is not currently accepting applications.*

Prerequisites and Admission

Applicants to the M.A. program in Spanish must have completed a B.A. degree (or its equivalent) with a major in Spanish or with a sound preparation in both Spanish language and Hispanic literatures and cultures. It is expected that the applicant will have a strong command of both written and spoken Spanish. This may be ascertained by means of an oral interview or a recorded biographical statement in Spanish prepared by the candidate to be submitted as part of the admission process. For international students, the application deadline is **Feb. 1**. For domestic students, the deadline is **Mar. 15**.

Program Requirements
(30 semester hours)

This program requires a minimum of 30 semester hours. For students holding graduate assistantships, the normal time to completion of the M.A. degree is four semesters. Varying degrees of emphasis between literature and linguistic study are possible depending on selection of courses. The following distribution is required of all students: 12 semester hours in literature, at least six hours of which must be in Spanish literature and at least six hours must be in Spanish American literature; a minimum of six semester hours in Hispanic linguistics. Up to three semester hours may be taken outside the Department of Spanish and Portuguese, whether at Miami or another university. The transfer of these credits must be approved in all cases by the Graduate Advisory Committee by way of petition.

This program requires a comprehensive written and oral examination, as well as a thesis. To be eligible for the examination, students may not have any incomplete grades. During the fourth semester, either in early January or around the Spring Break recess, students must pass a comprehensive exam. The date for the exam will be set by the third week of November in the semester prior to the exam.

The exam covers the three areas of interest of the program: Peninsular, Latin American, and Linguistics. Examinations will be based both on the course work that the student has taken and on the Master's Reading List. It is assumed that each student's set of examination questions will be different, depending on the courses taken. Each written exam will be evaluated as a whole by all three members of the examination committee; all three areas must be passed in order to proceed to the oral portion of the exam. An exam that is deficient in any area will result in failure for the entire exam. Failed sections must be rewritten, resubmitted, and reevaluated by the examination committee. A second failure will be deemed final.

Students will also write a thesis (60-80 pages in length) under the guidance of an appropriate faculty member of their choosing. The Graduate Advisory Committee (GAC) will appoint two additional members of the thesis committee in consultation with the director of the thesis. The committee's responsibilities include ensuring the quality of the written work in all respects and advising students when the thesis is ready for the oral defense. All theses will be written in Spanish. Students are advised to select a thesis topic and a director as early as possible. This should be done by the end of the first year.

Speech Pathology and Audiology- Master of Arts, Master of Science

For information, contact:
Director of Graduate Studies
Department of Speech Pathology and Audiology
2 Bachelor Hall (513-529-2500)

www.muohio.edu/spa

Admission Requirements

You must have an undergraduate degree in speech pathology and audiology and have a 3.00 minimum cumulative grade point average (g.p.a.) (4.00 scale) in your undergraduate course work. If you have a B.S. or B.A. in a related discipline, you must take undergraduate prerequisite course work in speech pathology and audiology prior to admission and/or may inquire about provisional graduate status. In addition to meeting the minimum academic admission requirements you must submit: 1) Graduate Record examination (GRE) test scores, 2) a current vitae outlining scholarships, awards, accomplishments, international, leadership, volunteer, research and/or work experience, 3) three recommendations, and 4) a personal statement.

Program Requirements

When you are admitted into the graduate program in speech pathology, you must maintain an overall g.p.a. of 3.00. In addition, you may receive no more than two grades of C of any type for two required courses (not exceeding a total of six hours for both courses) at 500 level or above. You must also meet the requirements for academic and clinical knowledge and skills as required for certification in the profession of Speech-Language Pathology as well as complete a thesis or a final research project.

Requirements: Master of Arts

This program requires a minimum of 49 semester hours in appropriate courses, including six hours of credit for thesis.

Requirements: Master of Science

This degree requires a minimum of 49 semester hours in the appropriate coursework, including credit for a graduate research a project or examinations as determined by the graduate faculty.

Sport Studies- Master of Science in Sport Studies

For information, contact:
Director of Graduate Studies
Department of Kinesiology and Health
106 Phillips Hall (513-529-2700)
www.units.muohio.edu/eap/knh/graduatePrograms/index.html

This degree is for those interested in the cross-disciplinary study of sport and leisure.

Admission Requirements

Undergraduate preparation typically includes course work in kinesiology, exercise science, health, sociology, psychology, cultural studies, women's studies, and related areas.

All applicants should have an undergraduate cumulative grade point average of at least 3.00 (4.00 scale). All applicants must submit scores from the Graduate Record Exam (GRE) general test or the Miller Analogies Test (MAT) and three letters of recommendation.

Program Requirements

Requirements include at least 15 semester hours in courses 600-level and above and at least 12 semester hours in courses offered by the department.

In the Sport Studies M.S. degree program, students may choose between concentrations in Sport Organization or Sport Behavior and Performance. Required courses and typical electives are listed and must be approved by your adviser.

Thesis and non-thesis tracks are offered. For the *thesis option*, you must complete 36 graduate semester hours; KNH 700 Thesis (4) and EDP 667 Behavioral Statistics (3) or a course suitable to your analytical perspective, have a graduate faculty thesis adviser; and pass an oral comprehensive exit examination that includes defense of your thesis. For the *non-thesis option*, you must complete 36 graduate semester hours and pass an oral comprehensive exit examination.

Sport Behavior and Performance Concentration

The Sport Behavior and Performance concentration is designed to provide breadth and depth of knowledge concerning the behavior of participants in competitive sport. While the primary orientation is psychological, students are expected to engage in cross-disciplined inquiry. Cognate courses in this area examine sport behavior from developmental, physiological, historical, and socio-cultural perspectives. The concentration offers a critical mass of faculty (nationally and internationally recognized) and a high student placement rate in doctoral programs and in other sport careers. The philosophy is couched in a research-to-practice orientation.

Career opportunities include positions in: teaching at the university level (or elementary or secondary levels assuming teaching certification); coaching at all levels; athletic administration (university, national sport organizations); recreational sport programming (e.g., YMCA/YWCA, Boys and Girls Clubs, Girl Scouts); academic advising/counseling (university athletic departments); consulting; or corporate fitness/wellness.

Required courses
KNH 621 Critical Perspectives on Knowledge Systems in Exercise, Health, and Sport Studies (2)
KNH 622 Quantitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 623 Qualitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 632 Psychological Foundations of Sport (4)
KNH 633 Psychological Interventions in Sport (4)
KNH 634 Social Psychology of Sport and Exercise (3)
KNH 611 Behavioral Approaches to Health Promotion and Disease Prevention (3) **or**
KNH 654 Studies in Exercise Behavior (3) **or**
KNH 673 Developmental Perspectives on Youth Sport Participation (3) **or**
KNH 675 Socio-Cultural Analysis of Sport I (4-8) **or**
KNH 676 Socio-Cultural Analysis of Sport II (4) **or**
KNH 685 Exercise, Age, and Health (3)

Choose one:
KNH 620 Research Problems (4)
KNH 700 Thesis Preparation (4)

For students completing the thesis option:
EDP 667 Behavioral Statistics (3) **or**
another course suited to your analytical perspective

Sport Organization Concentration

This concentration is designed to provide breadth and depth of knowledge concerning how play, games, and sport relate to general features of social organization and social relations, and thereby, to provide comprehensive insights into the institutional arrangements and cultural values of society. The major premise is that play, games, and sports are culturally central to the life experiences of social classes and status groups in our society and to the power relationships that are characteristic of the interaction between them.

Coursework provides opportunities for students to evaluate how social class, ethnicity, race, and gender contour our enculturation into and via play, games, and sport. It also enables students to understand the historical development of contemporary sporting practices. Faculty are nationally and internationally recognized and there has been a high placement rate for students seeking Ph.D.s in sociology and physical education/kinesiology.

Career opportunities include positions in: teaching at the university level; professional sport organizations, amateur athletic sport organizations; NCAA sport organizations; private sports clubs (e.g., tennis, golf); or academic athletic administration.

Required courses

All of these:
KNH 621 Critical Perspectives on Knowledge Systems in Exercise, Health, and Sport Studies (2)
KNH 622 Quantitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 623 Qualitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
KNH 675 Socio-Cultural Analysis of Sport I (4-8)
KNH 676 Socio-Cultural Analysis of Sport II (4)

Four of the following courses:
KNH 571 Sport, Leisure, and Aging (4)
KNH 572 Sport in Schools and Colleges (4)
KNH 574 Sport and Modernization (4)
KNH 575 Women, Gender Relations, and Sport (3)
KNH 673 Developmental Perspectives on Youth Sport Participation (3)

OR

One of the following:
(Only one of the following may be used to fulfill the degree requirement listed above (choose four) and your selection must be approved by your SO adviser.)
KNH 553 Seminar in Kinesiology and Health (3)
KNH 610 Internship (1-4)
KNH 700 Thesis Preparation (1-10; 4 required; maximum 10 towards any degree

One course outside concentration, but within the Sport Studies Program:
KNH 553 Seminar in Kinesiology and Health (3) *
KNH 632 Psychological Foundations of Sport (4)
KNH 633 Psychological Interventions in Sport (4)
KNH 634 Social Psychology of Sport and Exercise (3)

* must be approved by SO adviser

One course outside Sport Studies Program, including, but not limited to:
EDL 625 Social Foundation of Education (3)
MKT 611 Professional Services Marketing (3)
KNH 509 Nutrition for Sport and Fitness (3)
KNH 562 Health Promotion, Planning, and Evaluation (3)
KNH 612 Foundations and Theory of Health Promotion and Education (3)
KNH 654 Studies in Exercise Behavior (3)
KNH 681 Human Motor Control and Learning (3)
WMS 535 Queer Theory (3)
WMS 601 Introduction to Women's Studies (3)
WMS 602 Feminist Theory and Methodology (3)

Statistics- Master of Science

For more information, contact:
Director of Graduate Studies
Department of Statistics
311 Upham Hall (513-529-7828)
http://www.units.muohio.edu/sta/

Admission Requirement

A knowledge of mathematics at least equivalent to multidimensional calculus (MTH 252) is required.

Program Requirements
(32 semester hours)

All of these:
STA 502 Statistical Programming (3)
STA 563 Regression Analysis (4)
STA 566 Experimental Design Methods (4)
STA 664, 665 Theory of Statistics (3, 3)
STA 666 General Linear Models (3)

One of these:
STA 660 Practicum in Data Analysis (3)
STA 663 Introduction to Applied Probability (3)

Nine additional hours from these:
STA 567 Multivariate Analysis (3)
STA 583 Analysis of Forecasting Systems (3)
STA 584 Analysis of Categorical Data (3)
STA 650 Topics in Statistics (1-4)
STA 660 Practicum in Data Analysis (3)
STA 663 Introduction to Applied Probability (3)
STA 667 An Introduction to Multivariate Statistical Analysis (3)
STA 668 Sampling Theory and Techniques (3)
STA 669 Nonparametric Statistics (3)
STA 684 Categorical Data Analysis (3)
STA 685 Biostatistics (3)
STA 686 Quality Control and Industrial Statistics (3)

No thesis is required.

Theatre- Master of Arts

For more information, contact:
Director of Graduate Studies
Department of Theatre, 112 Hiestand Hall (513-529-3053)
www.muohio.edu/theatre

This program requires a minimum of three semesters (or two semesters and a summer session) for completion. Deficiencies in your undergraduate background or requirements in a track may cause your program to extend longer.

Program Requirements
(34 semester hours)

Core requirements

All of these:
THE 601 Introduction to Theatre Research (3)
THE 603 Introduction to Theatre Historiography (3)
THE 605 Introduction to Theatre and Performance Theory (3)
THE 680 Seminar in Major Styles and Theories (3; maximum 6)
THE 703 Graduate Colloquium in Theatre Studies (1; maximum 4)

Other Studies in Theatre (16 semester hours)

Six semester hours in this course:
THE 691 Seminar in Theatre History (3; maximum 12)*

Six semester hours in this course:
THE 680 Seminar in Major Styles and Theories (3; maximum 12)

Four semester hours in this course:
THE 770 Directed Study in Theatre History (1; minimum 4, maximum 12)

Electives:

In addition to the core curriculum, each student will also take:
At least one graduate level course outside the department approved by the student's advisor (3)

Field of special interest:
Each student must take an additional 6 hours in his or her field of special interest within theatre studies (directing, design, playwriting, dramaturgy, history or criticism). (6)

Thesis hours:
THE 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

Women's Studies- Certificate

For information, contact:
Director of Women's Studies
126 MacMillan Hall (513-529-4616)
www.muohio.edu/womensstudies

This certificate program is available to master's and doctoral candidates in any field of study across the university. Its purpose is to enhance a disciplinary graduate degree with specialization in Women's Studies. Using a multidisciplinary approach, students explore the influence of gender and other social differences on production and dissemination of knowledge within disciplines. The program provides intensive study of a variety of feminist theories and methodologies. Courses stress interaction between theory and practice and connections between academic work and public life.

Certificate Program Requirements
(12-14 semester hours)

Core Requirements (6 semester hours)
WMS 601 Introduction to Women's Studies (3)
WMS 602 Feminist Theory and Methodology (3)

Electives (6-8 semester hours)
Two 500-level or above courses (3-4 semester hours each) taught from a feminist perspective, including one in your major field and one in another discipline, selected with your WMS adviser.

Final Project
Planned with and approved by your WMS adviser; includes presentation.

Zoology- Master of Arts, Master of Science, Doctor of Philosophy

For information, contact:
Chair of Graduate Advisory Committee
Department of Zoology
212 Pearson Hall (513-529-3100)
http://zoology.muohio.edu

Research and Support Facilities

The department has outstanding laboratory facilities that are supported by the university, as well as grants from a variety of agencies and foundations including the National Institutes of Health, National Science Foundation, U.S. Department of Agriculture, and the U.S. Environmental Protection Agency. Facilities include DNA sequencing, synthesizing, and analytical equipment and specialized equipment for cellular, developmental and neurophysiological research, including electron microscopy and confocal laser facilities.

Miami University is located near excellent sites for field studies in terrestrial and aquatic ecosystems. The university's Ecology Research Center located two miles from campus has nearly 200 acres devoted to a wide range of research projects in behavior, ecology, and environmental biology. In addition, Hueston Woods State Park and other nearby field sites are readily available to faculty and students.

Admission Requirements

Admission is based on evaluations submitted by the departmental, the Graduate School, and (where applicable) the International Programs Office. Applicants for the Master of Science and Doctoral programs are required to make contact with and identify a prospective major adviser.

For the Master of Arts in Zoology Program:

Please visit the Miami University Graduate Programs site *http://www.miami.muohio.edu/graduate/programs/zoo.cfm* for more information about requirements, admission and the program description.

For the Master of Science and Doctoral Programs:

Send the following to the department: (1) three letters of recommendation and (2) a one-page letter stating your area of interest, reasons why you want to enter the program, and up to three names of departmental faculty who could serve as potential advisers.

Send to the Graduate School: (1) the Graduate School application form and application fee, (2) official transcripts of all

previous academic work, and (3) official scores for the aptitude portions of the Graduate Record Examination. International students must also provide: (1) proof of financial support, (2) certification of each diploma or degree earned, and (3) for non-native English speakers, official scores on the Test of English as a Foreign Language (TOEFL).

For more information about requirements, admission, and program description go to Zoology Department Graduate programs at: *http://zoology.muohio.edu/ZOO/graduate/.*

General Requirement: Master of Science, Doctor of Philosophy

As a part of their professional training, all M.S. and Ph.D. candidates must perform departmental teaching and/or research.

Requirements: Master's Degree Programs

Master of Science in Zoology

1. Incoming students are expected to have completed a bachelor's degree and should have a broad course background in biology, chemistry, physics, and mathematics or statistics. A student may be required to complete undergraduate courses as part of his/her program of study.
2. Complete a pedagogy course (ZOO 689) upon entry to the graduate program and complete an introductory seminar (ZOO 601) during the first fall semester in residence.
3. Complete at least 30 semester hours of graduate work including: (a) at least 9 hours of formal course credit, (b) at least three seminars, and (c) six to 12 hours of thesis credit in zoology. Not more than 10 semester hours of transfer credit can be applied to the degree. A course of study must be approved by a committee of graduate faculty during the first year in residence.
4. Pass an oral defense of your thesis proposal, approved by a committee of graduate faculty.
5. Conduct a research project approved by a committee of graduate faculty and present the project as a written thesis and in a public seminar.
6. Pass an oral examination in defense of your thesis, approved by a committee of graduate faculty.

Master of Science/Ecology Certificate Program

1. Incoming students are expected to have completed a bachelor's degree and should have a broad course background in biology, chemistry, physics, and mathematics or statistics. A student may be required to complete undergraduate courses as part of his/her program of study.
2. Complete a pedagogy course (ZOO 689) upon entry to the graduate program and complete an introductory seminar (ZOO 601) during the first fall semester in residence.
3. Complete at least 30 semester hours of graduate work including: (a) 12 hours of formal course credit, including a course in population/community ecology, a course in ecosystem/global ecology, an additional graduate course in zoology, and a course in statistics or mathematical modeling; (b) at least three seminars, two of which must be in ecology, and (c) six to 12 hours of thesis credit in zoology. Not more than ten semester hours of transfer credit can be applied to the degree. A course of study must be approved by a committee of graduate faculty during the first year in residence.
4. Pass an oral defense of your thesis proposal, approved by a committee of graduate faculty.
5. Conduct a research project in ecology approved by a committee of graduate faculty and present the project as a written thesis and in a public seminar.
6. Pass an oral defense of your thesis, approved by a committee of graduate faculty.

Master of Arts in Zoology (35 semester hours)

1. Incoming students are expected to have completed a bachelor's degree. A student may be required to complete undergraduate courses as part of his/her program of study.
2. Complete at least 35 credits of graduate work.
3. Complete the MA's Science Program Development and Leadership Course (2 credits).
4. Complete the MA's Master Capstone Course (2 credits).
5. Complete a teaching/work portfolio.
6. The program graduate committee must approve the academic program for students.

For more information about requirements, admission, and program description go to Miami University Graduate programs at: *http://www.miami.muohio.edu/graduate/programs/zoo.cfm.*

Requirements: Master of Arts in Teaching in Biological Sciences
(35 semester hours)

For more information about requirements, admission, and program description go to Miami University Graduate programs at: *http://www.miami.muohio.edu/graduate/programs/bio.cfm* or visit the Biological Sciences field of study in this Graduate Bulletin.

Requirements: Doctoral Programs

Doctor of Philosophy/Zoology

In addition to the general requirements specified by the Graduate School, you must:

1. Fulfill all requirements specified for the Master of Science in Zoology and any further courses specified by your graduate advisory committee. Doctoral students are expected to participate in graduate seminars throughout their program, are expected to participate in departmental teaching as part of their professional development, and are required to complete at least 30 semester hours of dissertation credit (ZOO 850). A course of study must be approved by a committee of graduate faculty during the first year in residence;
2. Demonstrate adequate knowledge of zoology and related areas by successfully passing a written and oral comprehensive examination administered by a committee of graduate faculty;
3. Pass an oral defense of your dissertation proposal, approved by a committee of graduate faculty;
4. Conduct a research project approved by a committee of graduate faculty and present the project as a written dissertation and in a public seminar;
5. Pass an oral examination in defense of your dissertation, approved by a committee of graduate faculty.

Doctor of Philosophy/Ecology Certificate Program

In addition to the general requirements specified by the Graduate School, you must:

1. Fulfill all requirements specified for the Master of Science in Zoology. Doctoral students are expected to participate in graduate seminars throughout their program and are expected to participate in departmental teaching as part of their professional development;
2. Complete at least 60 semester hours of graduate work including: (a) at least 18 hours of formal course credit including a course in population/community ecology, a course in ecosystem/global ecology, an additional graduate course in zoology, and a course in statistics or mathematical modeling; (b) at least four seminars in ecology; and (c) at least 30 hours of dissertation credit (ZOO 850). A course of study must be approved by a committee of graduate faculty during the first year in residence.
3. Demonstrate adequate knowledge of ecology and related areas by passing a written and oral comprehensive examination administered by a committee of graduate faculty;
4. Pass an oral defense of your dissertation proposal, approved by a committee of graduate faculty;
5. Conduct a research project approved by a committee of graduate faculty and present the project as a written dissertation and in a public seminar;
6. Pass an oral examination in defense of your dissertation, approved by a committee of graduate faculty.

Courses of Instruction

General Information

This section of the Bulletin lists all courses offered at the university on all campuses. With each department or area, we give in parentheses the university's abbreviation and the division offering the courses—for example, **ACCOUNTANCY (ACC-Business)** means that ACC is the abbreviation for accountancy courses and they are offered by the Farmer School of Business.

Course offerings are listed online (www.bannerweb.muohio.edu) and in *the Course Schedule* booklet. *The Course Schedule,* published each year by the Registrar's office, contains important registration information.

Course descriptions are necessarily brief. For more information about a course, consult the instructor or the department.

Abbreviations and Terms

Note: A registration glossary is in the Registering for Courses chapter.

CAS-A, CAS-B, etc.: Course fulfills a part of that section(s) of the College of Arts and Science requirement. (Please see the College of Arts and Science chapter.) These are CAS requirement abbreviations in the course descriptions:
CAS-A: Foreign language
CAS-B: Humanities
CAS-B-LIT: Fulfills a part of the literature requirement of CAS-B.
CAS-C: Social science
CAS-D: Natural science
CAS-D/LAB: Fulfills laboratory requirement of CAS -D (LAB must be preceded by CAS-D/to fulfill the CAS lab requirement).
CAS-E: Formal reasoning.

Co-requisite: Courses that must be taken during the same semester because their subject matter is similar or complementary. Co-requisites are given at the end of course descriptions.

Course sections: Courses with large enrollments are divided into sections. Sections are identified by letters, for example ART 171A. A five-digit CRN (Course Reference Number) also identifies a course section.

Credit/no-credit course: No grade is received for this course. You will get credit for a C or better; you do not get credit if your grade is lower. A credit/no-credit course is not figured in your g.p.a. You can only take one-fourth of your course work on credit/no-credit basis, and usually you cannot take courses in your major this way. As a freshman, you must register for at least 12 hours for a grade before taking a credit/no-credit course. After 20 percent of the class meetings, you cannot change from credit/no-credit to a letter grade or from a letter grade to credit/no-credit. See the Grades chapter for more detail.

Cross-listed course: Course where material taught crosses multiple disciplines. The course may or may not be offered by two or more departments during the same term.

g.p.a.: Grade point average. See the Grades chapter for more detail.

Lab: Laboratory.

Lec. Lab.: Lecture and laboratory; used to indicate how many credit hours are earned in lecture and/or in laboratory (for example, 3 Lec. 1 Lab.).

MP: Miami Plan for Liberal Education.

MPF: Miami Plan Foundation course. Course fulfills a part of the MPF requirement. (Please see the Miami Plan chapter.) These refer to the MPF courses outline:
I: English composition
IIA: Fine Arts
IIB: Humanities
IIC: Social Science
IIIA: United States cultures
IIIB: World cultures
IVA: Biological science
IVB: Physical science
V: Mathematics, formal reasoning, technology
H: Fulfills historical perspective requirement
LAB: Fulfills laboratory course requirement for the Miami Plan; LAB must be preceded by IVA or IVB to fulfill the MPF natural science laboratory requirement.

MPT: Miami Plan Thematic Sequence course.

MPC: Miami Plan Capstone Experience course.

Offered infrequently: Courses may be offered every two or three years.

Prerequisite: Course(s) that must be taken to provide background for the course requiring the prerequisite. Sometimes permission of the instructor or another requirement (such as graduate standing) may be a prerequisite to a course.

Semester credit hour: Unit used to measure course work. The number of credit hours is usually based on the number of hours per week the class meets; for example, a three-hour course typically meets three times a week for 50 minutes each time. One credit hour is usually assigned for two or three hours in laboratory and studio courses.

Service course: Course designed by a department to serve the program requirements of another department or division. Choose a service course carefully. It may not meet the requirements for your department.

Sprint course: Course that meets for less than the full semester, usually in periods of five weeks, seven and a half weeks, or 10 weeks.

Summer only: Offered in the summer only.

Course Numbering System

000-099: Developmental courses, generally not creditable toward a degree.

100-199: Introductory courses, usually with no prerequisites.

200-299: Sophomore level courses.

300-399: Junior level courses.

400-499: Senior level courses.

500-850: Graduate level courses. On occasion, a senior may take 500- and 600-level courses for *graduate* credit with permission (described in the Registering for Courses chapter). Seniors who wish to earn undergraduate credit in a 600-level course must have approval of the course instructor, department chair, and dean of the Graduate School.

599 and 699: Workshops or similar offerings. Workshops must go through an approval process each year.

700 and above: Restricted to graduate students.

Course numbers at two levels (such as 433/533) may be taken either for undergraduate or graduate credit. Graduate students must complete additional work to receive graduate credit.

Course numbers separated by a comma (such as 233, 234) are related. You may take one of the series and they may be taken in any order (unless otherwise indicated in the course description).

Course numbers separated by a hyphen (such as 233-234) must be taken in numerical order and both must be taken to receive credit for graduation.

Special Course Numbers

499/599 and 699: These numbers are used for workshops or similar offerings. Workshops must go through an approval process each year. Some departments/programs utilize workshop numbers ending in 97, 98 or 99 based upon volume and frequency of workshop offerings.

677: This course is used for departments/programs without an established Independent Study course number. You can register for 1-5 credit hours of independent study each semester (no more than 10 per year). Registration for each course is in accordance with the level of instruction. Independent study projects must be approved by the instructor and the department chair/program director.

700: This number is used for Master's thesis research credit.

790: This number is used for Pre-candidacy doctoral research.

850: This number is used for Doctoral Dissertation credit.

Semester Credit Hours

Semester credit hours are indicated in parentheses following the course title; for example, **282 Art and Politics** (3). Some courses carry variable credit, a range of credit hours for courses such as independent study, special topics, thesis hours, etc. The maximum number of hours you can earn in the course may also be indicated, for example, (3; maximum 6).

Frequency of Offerings

Information on frequency of offerings is provided to assist you in advance planning. These are normative patterns for program scheduling and are subject to change without notice based on student demand and other programmatic priorities.

ACCOUNTANCY COURSES (ACC- Business)

ACC 221 Introduction to Financial Accounting (3) MPT
Introduction to the purposes of financial statements and the recognition, measurement, and disclosure concepts and methods underlying financial statements. Focus is on preparing, using and interpreting financial statements and on understanding the impact of transactions and events on financial statements and financial ratios. Prerequisite: Sophomore standing.

ACC 222 Introduction to Managerial Accounting (3) MPT
Introduction to the uses of accounting information provided to managers in production, service, and resale businesses. Focus is on classifying, measuring, and analyzing product and service costs for decision making, preparing budgets, and evaluating performance. Prerequisite: ACC 221.

ACC 321 Intermediate Financial Accounting (3) MPT
Study of the conceptual framework and standard-setting process followed by the application and evaluation of generally accepted accounting principles underlying financial statements. Focus is on recording and reporting intermediate-level transactions and events in accordance with authoritative standards related to the recognition, measurement, and disclosure of assets, liabilities, owners' equity, revenues, expenses, gains, and losses.

ACC 330 Professional Practice (0-1; maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with BUS/BLS/DSC/ECO/ESP/FIN/MGT/MIS/MKT 330.

ACC 333 Managerial Cost Accounting (3)
Focuses on the roles firm strategy and management accounting information play in managing products, services, and customers. Emphasizes volume-based and activity-based cost calculations, customer profitability analysis, long-term pricing decisions, make/buy and mix decisions, target costing, short-term variable costing-based pricing decisions, and theory of constraint-based pricing and mix decisions. Prerequisite: ACC 222.

ACC 343 Federal Income Tax Accounting (3)
Study of the basic features of the federal income tax system. Focuses on the determination of taxable individuals and corporations and on the effects of tax laws and regulations on decision making. Prerequisite(s): ACC 221.

ACC 361 Modeling Business Processes in Accounting Information Systems (3)
Introduction to accounting information systems (AIS) as an enterprise-wide, process-focused information system. Also focuses on modeling business processes for AIS by studying processes and learning how to build information systems to support them. Uses data modeling tools such as the REAL model and entity-relationship diagrams to construct relational database systems. Prerequisite(s): MIS 235.

ACC 383 Comparative Accounting (4)
Provides a means to perform comparative analyses of financial accounting and tax issues and systems by comparing standard setting process, tax policy issues, and accounting and tax treatment of various transactions. General issues in international taxation and various aspects of foreign direct investment (from the firm and governments' perspectives) are covered. Summer only and offered abroad. Prerequisite: ACC 221 and permission of instructor.

ACC 422/522 Financial Accounting Research (3) MPT
Study of professional research methods and resources used for financial accounting and reporting. Focuses on the application of research methods and resources, through case analyses, to determine applicable recognition, measurement, and disclosure standards for advanced-level transactions and events. Credit not applicable to the Master of Accountancy degree. Prerequisite: ACC 321.

ACC 433/533 Management Accounting for Processes (3)
Focuses on the roles firm strategy and management accounting information play in managing business processes. Emphasizes value chain analysis, business process re-engineering, balanced scorecard performance measurement, benchmarking, master budgeting and variance analysis, process value analysis, nonfinancial operational performance measurement, and throughput accounting. Credit not applicable to the Master of Accountancy degree. Prerequisites: ACC 333 and MGT 302.

ACC 445 Corporate Partnership and Taxation (3)
Study of the federal tax consequences of the formation and operation of corporations, partnerships, and S corporations. The course also provides a basic understanding of the legal tax research process and how to access online and evaluate the various sources of federal income tax law. Prerequisite(s): ACC 343.

ACC 452/552 Internal Auditing (3)
Focuses on the theory and practice of auditing within organizations. Covers internal auditing standards, overview of operational, performance and compliance type audits, and the application of common internal audit techniques. Credit not applicable to the Master of Accountancy degree. Prerequisites: ACC 333 and ACC 361.

ACC 453/553 Financial Statement Auditing (3)
Introduction to financial statement audits conducted by independent public accountants. Emphasizes the technical knowledge and skills required by entry-level auditors to meet professional standards, plan and perform audits, and communicate results. Credit not applicable to the Master of Accountancy degree. Prerequisites: ACC 321 and ACC 361.

ACC 461/561 Accounting for Business Combinations (2)
Accounting for mergers and acquisitions with emphasis on preparation of consolidated financial statements. Credit not applicable to the Master of Accountancy degree. Prerequisite: ACC 321.

ACC 463/563 Survey of International Accounting and Reporting (1)
Survey of international financial accounting and measurement issues. Compares American standards with those of other major countries and examines harmonization efforts in the European Union and internationally. Credit not applicable to the Master of Accountancy degree. Prerequisite: ACC 321.

ACC 468/568 Accounting for Governmental Organizations (2) MPT
Application of accounting principles of governmental organizations with emphasis on fund accounting, budgetary control, and financial reporting. Credit not applicable to the Master of Accountancy degree. Prerequisite: ACC 221 and 222.

ACC 469/569 Accounting for Nongovernmental Not-For-Profit Organizations (1) MPT
An overview of financial and managerial accounting issues for health care institutions, public and private colleges and universities, and voluntary health and welfare organizations with a focus on assessing an organization's use of resources in light of its mission. Credit not applicable to the Master of Accountancy degree. Prerequisite: ACC 468/568.

ACC 477 Independent Study (1-3)
Must be approved by instructor and department chair.

ACC 601 MBA Accounting Module (3)
Introduces the MBA student to basic concepts of financial and managerial accounting. Focuses on recording financial transactions and interpreting and analyzing financial statements as well as budgeting, performance measurement and identifying relevant costs for decision-making.

ACC 611 Accounting for Managers (3)
This course explores how accounting information is used by managers to make internal business decisions, to create financial plans, and to evaluate actual performance relative to those plans. It also explores how managers analyze financial statements for internal management purposes.

ACC 622 Information for Business Valuation and Decisions (3)
Framework and skills to analyze financial information for business valuation and capital allocation decisions including applications through case analysis. Emphasis on using financial information for four types of analyses: business strategy, accounting, financial, and prospective. Prerequisite: ACC 321.

ACC 630 Graduate Professional Practice (0)
Graduate students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator.

ACC 643 Income Tax Research (3)
Study of effects of federal income tax on business decisions, methods of minimizing taxes and maximizing after tax cash flows, use of current tax reporting services and other reference materials in research and reporting on complex cases. Prerequisite: ACC 343.

ACC 644 Taxation of Business Entities (3)
Consideration of the unique tax aspects of the formation, operation, and liquidation of corporations (including S corporations) and partnerships, and the tax effects of these forms of conducting business on their owners. Prerequisite: ACC 343.

ACC 646 Taxes and Business Decisions (3)
Taxes play a major role in determining the costs and benefits of all business transactions. This course will provide the tools necessary to identify, understand and evaluate tax planning opportunities. Prerequisite(s): ACC 343 or equivalent.

ACC 650 Fraud Examination (3)
Study of the process of locating, investigating and documenting fraud in a business environment. In addition to learning about several common types of fraud schemes, students will learn how and why occupational fraud is committed, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved within the current legal environment.

ACC 653 Assurance Services (3)
Focuses on fundamentals and emerging issues related to the practice of auditing and involves researching and resolving practice-oriented problems. In addition to other relevant topics, the course covers audit sampling, EDP auditing, and computer-assisted audit techniques. Prerequisite: ACC 453/553.

ACC 655 Control of Accounting & Reporting Risk (3)
Study of the process of identifying, measuring and controlling strategic and business process risk utilizing accepted accounting frameworks from both internal and external perspectives. The concepts studied in this course are the theoretical foundation for business risk auditing approaches being utilized by international accounting firms. The process of designing effective risk management strategies and controls are examined within specific industries and accounting settings.

ACC 681 Special Studies in Accounting (1-4)
Independent research into one or more selected topics in accounting with consultations with supervising instructor and written reports on the research. Extent of the research project depends upon credit registration. Prerequisite: graduate standing and permission of department chair.

ACC 695 Integrative Accounting Capstone (3)
Integration of auditing, accounting systems, financial accounting, managerial cost accounting, and income tax accounting. Prerequisite or co-requisite: ACC 422/522, ACC 453/553, nine semester hours of 600-level accountancy courses, and enrollment in Master of Accountancy program.

AERONAUTICS COURSES (AER-Arts and Science; Department of Physics)

Note: Flight training is available at the Miami University Airport as supplementary training for any Miami student. Information concerning the flight program may be obtained from the Aeronautics Program of the Department of Physics.

AER 101 Introduction to Aeronautics (3) MPF
Introduction to application of basic physical principles conservation of mass, momentum, and energy to aeronautics. Provides opportunity to improve mathematical and analytical thinking skills by solution of problems in many areas, including aerodynamics, jet propulsion, and aircraft performance. At the end of the course, students will have a scientifically based understanding of why aircraft look and perform as they do. Suitable for students with or without technical background; only basic algebraic skills needed. IVB. CAS-D.

AER 118 Introduction to Atmospheric Science (3) MPF
Introductory survey of a broad range of atmospheric phenomena with emphasis on how they can affect our lives and mankind's impact on a changing atmospheric environment. Quantitative, illustrative, and mostly non-mathematical approach to processes that pertain to such topics as composition of the atmosphere, global climate, large-scale weather systems and the nature of violent storms. Develops skills in the areas of problem solving (using charts instead of equations) and elementary weather forecasting. Cross-listed with PHY 118. IVB. CAS-D.

AER 121 Flight Fundamentals (3)
Basic physical principles and operating concepts of powered flight. Designed for students in flight training.

AER 130 Flight Training (1-3; maximum 8)
Flight training leading to FAA certification in the private, commercial, and instrument areas. Credit registration is based on one credit per 12.5 hours of flight training program. Prerequisite: permission of department chair.

Advanced Aeronautics Courses

AER 221 Advanced Flight Fundamentals (2)
Application of basic meteorological, navigational, aerodynamic, and air traffic control principles and requirements to aircraft operation. Open only to advanced flight students. Prerequisite: AER 121.

AER 253 Basic Meteorology Laboratory (1)
Basic experiments dealing with atmospheric concepts, measurements, interpretation and basic analysis of weather data. Prerequisite: AER/PHY 118 or concurrent registration.

AEROSPACE STUDIES COURSES (AES-Arts and Science)

AES 110 Leadership Laboratory (1; maximum 2)
Introduction and orientation to the Air Force through study and supervised practice of customs and courtesies, drill and ceremonies, and development of basic leadership skills. Provides orientation to life and work of an Air Force junior officer and officer career opportunities. Instruction, typically including field trips to Air Force installations, conducted within framework of an organized cadet corps with a progression of experiences to develop leadership potential. Limited to qualified cadets pursuing an Air Force commission. Co-requisite: AES 121.

AES 111 Leadership Laboratory (1; maximum 2)
Continues introduction and orientation to Air Force and ROTC program through study and supervised practice of customs and courtesies, drill and ceremonies, development of basic leadership skills, and junior officer responsibilities and career opportunities.

Instruction conducted via direct student involvement in organized cadet corps activities and progressive cadet experiences designed to develop leadership potential. Limited to qualified cadets pursuing an Air Force commission. Co-requisite: AES 122.

AES 121 The Foundations of the United States Air Force (1)
Survey course addresses basic topics relating to the Air Force and its role in national defense. Focuses on military standards, customs and courtesies, officership, career opportunities and benefits. Reviews the organization and mission of the Air Force and its role in achieving U.S. national objectives. Examines the Air Force major command structure, its heritage and includes an introduction to the military style of communicative skills.

AES 122 The Foundations of the United States Air Force (1)
Further addresses basic topics related to the Air Force and national defense. Focuses on Air Force core values, the oath of office, leadership and team building, professional relations and managing the force, interpersonal communications and their impact on military operations. Develops fundamental military-oriented oral and written communicative skills.

AES 210 Leadership Laboratory (1; maximum 2)
Provides fundamental training and experience in Air Force military management and leadership techniques via direct student participation in organized cadet corps activities and exercises with continued emphasis on developing leadership potential. Instruction includes customs and courtesies, drill and ceremonies, and knowledge of junior officer responsibilities and career opportunities. Limited to qualified cadets pursuing an Air Force commission. Prerequisite: AES 110, 111, or permission of instructor. Co-requisite: AES 221.

AES 211 Leadership Laboratory (1; maximum 2)
Provides continuation of fundamental training and learning experiences in Air Force military management and leadership techniques in organized cadet corps leadership development activities and exercises. Instruction includes Air Force customs and courtesies' drill and ceremonies, and knowledge of junior officer responsibilities and career opportunities. Limited to qualified cadets pursuing an Air Force commission. Prerequisite: AES 110, 111, or permission of instructor. Co-requisite: AES 222.

AES 221 The Evolution of USAF Air and Space Power (1) MPT
Study of historical development and employment of air power in military and nonmilitary operations from its earliest beginnings through the early Cold War period. Focuses on factors contributing to change in military conflict; evolution of air power concepts and doctrine, role of technology in the growth of air power, and assessment of student communicative skills.

AES 222 The Evolution of USAF Air and Space Power (1) MPT
Continuation of AES 221. Study of the development, history, and employment of air power in military and nonmilitary operations from the Cold War period to the present. Focuses on factors contributing to change in military conflict, evolution of air power concepts and doctrine, role of technology in the growth of air power, and assessment of student communicative skills.

AES 240 Career Orientation (2-4; maximum 4)
For AFROTC cadets only. Provides practical cadet field training in the life and work of an Air Force officer, while providing a means of evaluating the student's officer potential. Includes instruction in Air Force doctrine, organization, mission, and functions of major commands. Course is given at selected Air Force bases throughout the United States. Prerequisite: permission of department chair.

AES 310 Leadership Laboratory (1; maximum 2)
Provides intermediate-level management training and learning experiences through practical application of military management techniques in organized cadet corps leadership development activities. Limited to qualified cadets pursuing Air Force commission. Co-requisite: AES 331.

AES 311 Leadership Laboratory (1; maximum 2)
Continues intermediate-level management training and learning experiences of military management techniques in organized cadet corps leadership development activities. Limited to qualified cadets pursuing an Air Force commission. Prerequisite: AES 310. Co-requisite: AES 332.

AES 331 Aerospace Leadership and Management (3)
Study of the skills and knowledge necessary for effective leadership and management. Examines various aspects of management functions, principles and insights provided by leadership research. Explores behavioral processes and leadership and management aspects as they relate to individuals and groups, focusing on team building, motivation, problem solving, followership and conflict management. Reviews planning, organizing, controlling functions. Leadership styles and research models are reviewed for their implications in improving management techniques. Emphasizes Air Force communication skills in writing and briefing.

AES 332 Aerospace Leadership and Management (3)
Examines aspects of leadership and management delineating the decision-making process as it relates to the individual and the group. Discusses organizational structure and staffing. Highlights manager's role in dealing with conflict and change, professional and unprofessional relationships, and corrective supervision and counseling. Examines ethical issues in the context of the Air Force officer's leadership authority, responsibility, and accountability while focusing on ways to develop effective leadership and management skills.

AES 410 Leadership Laboratory (1; maximum 2)
Provides advanced-level management training and learning experiences through practical application of military leadership principles in organized cadet corps leadership development activities. Strong emphasis on professionalism and officership. Limited to qualified cadets pursuing an Air Force commission. Prerequisite: AES 311. Co-requisite: AES 431.

AES 411 Leadership Laboratory (1; maximum 2)
Continues advanced-level management training and learning experiences through practical application of military leadership techniques in organized cadet corps leadership development activities. Strong emphasis on professionalism and officership. Limited to qualified cadets pursuing an Air Force commission. Prerequisite: AES 410. Co-requisite: AES 432.

AES 431 National Security Forces in Contemporary American Society (3) MPT
Examines the need for national security and analyzes evolution and formulation of U.S. defense policy and strategy. Examines functions and operations of the Department of Defense, the Air Force and other military services. Explores how U.S. alliances and regional security arrangements preserve American interests around the world. Focuses on several geographical regions and analyzes their impact on U.S. national security. Examines other defense/security issues, such as arms control, terrorism, principles of war and strategy. Explores the U.S. Constitution, the various roles of the branches of government and the concept of civilian control of the military.

AES 432 National Security Forces in Contemporary American Society (3) MPC
Covers advanced leadership topics, ethics, and Air Force doctrine for prospective Air Force officers about to assume active duty. Special topics focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. Prerequisite: AES 431 or approval from department chair.

AMERICAN STUDIES COURSES (AMS-Arts and Science)

AMS 105 American Studies Film Series (1)
This course examines selected films addressing a particular theme or issue in American culture. Themes and films vary from semester to semester.

AMS 111 Religion and Popular Culture (3)
Examines various ways in which religious themes (myth, ritual, spirituality, morality, community) can be found in television shows, films, music, the internet, and other pop culture venues. While noting the complexity of the concepts of "religion" and "popular culture," we will analyze the ways in which American popular culture represents, critiques, and shapes religion. As we proceed, we will also discover how cultural factors can determine whether or not we perceive religious themes and issues at play in American popular culture. Cross-listed with REL.

AMS 135 Understanding Jazz, Its History and Context (3)
History of jazz in the United States from its origins to the present. Emphasis placed on developing aural perceptions of stylistic differences between historical periods and significant performers. Cross-listed with MUS. IIA, IIIA, H.

AMS 183 Images of America (3)
Investigating the power and influence of visual art imagery, either about, targeted to, or made by diverse segments of historic and contemporary American society and how this imagery has helped or hindered our coming together as a diverse nation. Explores the use of art stereotypes as a basis for evaluation, how visual components help define culture, the decoding of cultural codes and how the idea of taste and aesthetics influences the way we see ourselves and others. Offered only on the Middletown campus. Cross-listed with ART 183.

AMS 205 Introduction to American Studies (3) MPF
Introduces students to the interdisciplinary study of American culture from an historical and contemporary perspective. Drawing from a variety of source materials and relying on a range of interpretative techniques, students examine aspects of thought, expression, and behavior in the United States. IIB, Cul, H.

AMS 206 Approaches to American Culture (3)
Examines a specific topic or case study, e.g., a form of cultural expression, a place, an historical moment, a social movement, an identity group. Emphasis is placed on interdisciplinary skills, teaching students to analyze and inter-relate different kinds of texts to explore the idea of culture. Prerequisite(s): AMS 205.

AMS 213 Appalachia: Cultures and Music (3)
The history of country music since 1925 in the context of Appalachian culture, regional modernization, and the emergence of national media. Authenticity and cultural traditions, fans and artists, performance ceremonies, African American and gospel contributions, technological innovation in recording, radio, movies, and television. Cross-listed with HST.

AMS 214 History of Miami University (3)
Miami University since 1809 from perspectives of local culture; national, social, and economic forces; and history of higher education. Key moments of change; continuity and difference through time; groups and traditions; architecture and landscape; influences of gender, class, race, and region. Cross-listed with HST 214.

AMS 216 Introduction to Public History (3)
Introduction to the major issues addressed by historians who work in the public sphere, with emphasis on the creation of a shared public past and the disciplines that comprise the field of public history. Cross-listed with HST 216.

AMS 222 Italian American Culture (3) MPF
A survey and investigation of the history of Italian immigration in America, the development of Italian American communities across the land, and the contributions that Italian Americans have made to American society and culture. Taught in English. No prerequisites. Offered once a year. Cross-listed with ITL and FST. IIB, Cul, H. CAS-B.

AMS 241 Religions of the American Peoples (4) MPT
American religious pluralism and the experience of minority peoples such as Roman Catholics, Jews, and Eastern Orthodox. Emphasis on historical, social, and cultural themes. Readings in fiction and autobiographical writings. Cross-listed with REL 241.

AMS 242 Religious Pluralism in Modern America (4) MPT
Historical and cultural analysis of religious communities of the U.S. of primarily non- European origin. Includes African American, Native American, Latino, and Middle Eastern and Asian traditions, including Islam. Cross-listed with REL 242.

AMS 246 Native American Literature (3)
Survey of published Native American fiction, poetry, memoir, drama, and non-fiction from the mid-19th century to the present. Explores cultural contexts and emphasizes an interdisciplinary approach that includes historical, sociological, and anthropological as well as literary perspectives. Cross-listed with ENG. IIB, Cul. CAS-B-LIT.

AMS 247 Appalachian Literature (3)
Survey of published Appalachian fiction, poetry, drama, and non-fiction from the mid-nineteenth century to the present. Addresses migration experiences, identity, landscape, and regionalism. Emphasizes an interdisciplinary approach to the study of literature, drawing on history, sociology, ecology, and current trends in American literary studies. Cross-listed with ENG. IIB.

AMS 248 Asian American Literature (3)
Survey of Asian American writing (including the novel, poetry, drama, nonfiction, etc.) from the early 20th century to the present. Addresses immigration experiences, growing up in America, and writing as cultural expression. Course uses an interdisciplinary approach to the study of literature, drawing on history, sociology, ethnic studies, and current trends in American literary studies. Cross-listed with ENG. IIB, Cul. CAS-B-LIT.

AMS 271 Cultures and Literature of the American South (3) MPF
Focuses on the culture and literature of the South as a region unique within the United States. Studies the complex ways Southern authors present their world views through fiction - and the ways political passions are manifested in a tumultuous society such as the American South in the era prior to, during, and after the Civil Rights Movement. Musical forms of expression such as the blues will also be studied. Cross-listed with ENG. IIB, Cul, H. CAS-B-LIT.

AMS 285 Introduction to African American Music (3)
A general survey of traditional West African music and its offsprings in America from slavery to the early 1990s. Major emphasis is placed on the contributory, sociological settings for significant musical forms and styles. Cross-listed with AMS. Prerequisite(s): MUS/AMS 135 or MUS 185.

AMS 301 Practice in American Studies (3)
Focusing on a specific theme or issue, the course explores public culture through applied study and research. The course connects theory and praxis through collaborative and interactive research and learning in American Studies. Approaches include service learning, field research, experiential learning, or applied research. Prerequisite: AMS 205.

AMS 302 America in Global Context (3)
Examination of American culture, identity, politics, and history in the context of growing global interconnectedness. Course themes and issue vary, but all focus on the membership of the United States in a broader international community and how the United States both shapes and is shaped by globalization. Prerequisite: AMS 205.

AMS 304 History, Memory, Tradition (3)
Examination of the role of history, memory, and tradition in American culture, and the theoretical underpinnings of public history. Cross-listed with HST 304.

AMS 310 Special Topics in American Studies (1-4; maximum 16)
Topical offerings in American Studies on themes such as popular culture, material culture, ethnicity, or periods in American life such as the 1950s. May be taken for credit more than once with different content and permission of instructor. Prerequisite: AMS 205 or permission of instructor.

AMS 340 Internship in American Studies (1-20)
Supervised work experience in Cincinnati and local social, cultural, and historical institutions. Open to junior and senior American studies majors with permission of the Director of American Studies.

AMS 341 Protestantism and the Development of American Culture (4) MPT
History and symbolic structure of American Protestantism and its role in the development of American culture. Cross-listed with REL 341.

AMS 348 Ethnic American Literatures (3)
Intensive introduction to theories of race, ethnicity, and identity through the study of American literature by ethnic minorities. Cross-listed with ENG 348. CAS-B-LIT.

AMS 362 The Era of the American Revolution (3)
Origins, events, and legacies of the American Revolution with particular emphasis on political and social developments. Cross-listed with HST 362.

AMS 363 The Early American Republic 1783-1815 (3)
Emphasizes the Constitution, the Federalists, and the Jeffersonian with study of Washington, Madison, Hamilton, John Adams, and Jefferson as major figures. Cross-listed with HST 363.

AMS 367 The United States in the 1960s (3) MPT
Examines political, social, and cultural changes in the United States in the turbulent decade of the 1960s. Describes the consensus that existed in the 1950s, and then explores such topics as the civil rights movement, the women's movement, expansion of the welfare state, war in Vietnam, and the growth of a counterculture. Cross-listed with HST.

AMS 371 Native American History to 1840 (3)
American Indian history from the period before European contact through the removal era of the 1830s and 1840s. Cross-listed with HST.

AMS 372 Native American History since 1840 (3)
American Indian history from 1840 through the twentieth century and into the present. Cross-listed with HST.

AMS 373 Transforming America 1815-1848
Explores a period characterized by geographical expansion, major reform movements, rapid changes in politics and technology, war with Mexico, economic transformation, and the debate over slavery. Cross-listed with HST.

AMS 379 U.S. Consumerism, 1890-Present (3)
Examines the history of mass consumerism in North American society, including the rise of mass production and the mechanisms that have made mass-produced goods available to American and global markets. Cross-listed with HST 379.

AMS 382 Women in American History (3) MPT
Survey of the history of women's lives and roles in American society from the colonial period to present. Emphasis on examining women's individual and collective roles in private and public spheres and on exploring how specific economic and political transformations have affected women's lives. Cross-listed with HST and WMS 382.

AMS 385 The Roots of Black Music: Blues, Gospel and Soul (3) MPT
Development of these music genres in America. In-depth analysis of stylistic differences and musical and cultural relationships between each. Cross-listed with MUS. Prerequisite(s): MUS/AMS 285 or permission of instructor.

AMS 386 The History and Development of Hip Hop Culture in America (3) MPT
Surveys development of the Hip Hop culture (rapping, graffiti art, breaking, DJing) from black vernacular forms in Africa and America. Cross-listed with MUS. Prerequisite: MUS/AMS 285, MUS/AMS 385 or permission of instructor.

AMS 390 Studies in American Regionalism (3; maximum 6) MPT
Literature of the West: imaginative treatments of the American frontier and the postfrontier West, Cooper to the present; major Southern American writers from Byrd to the present. Cross-listed with ENG. CAS-B-LIT. Offered infrequently.

AMS 392 Sex and Gender in American Culture (3) MPT
Examination of change over time in the construction of sexual norms, attitudes, and behaviors in American culture, as well as of gender roles. Covers the period just prior to the Indian-European encounter to the present. Cross-listed with HST 392.

AMS 396 The American South Since 1877 (3)
Intensive study of the region since reconstruction. Expansion of cotton culture and industrialization; age of segregation; white and black cultures; modernization; desegregation. Cross-listed with HST and BWS 396. Offered infrequently.

AMS 397 American Environmental History (3)
Introduction to human-natural environmental relationships in English North America and the United States, ca. 1600 to present. Chronological and regional approach with emphasis upon political economy and the American conservationist/ environmentalist movement. Cross-listed with HST/WST.

AMS 401 Senior Capstone in American Studies (4) MPC
A colloquium in which students undertake and complete a research or creative project in an area of American cultural studies. Emphasis is on the collaborative selection and design of issues for discussion as well as on sharing the process of project development. Required for American studies majors and minors. Prerequisite: AMS 205, nine additional hours of American studies-related course work, or permission of instructor.

AMS 405 American Studies Workshop (4)
Study and practice of advanced cultural analysis and research in American Studies. Prerequisites: AMS 205, AMS 301.

AMS 413 American Religious Thought and Spirituality (4)
Reading and discussions on seminal texts in American religious thought and spirituality from colonial origins to the present. Content may vary, but representative authors include Anne Bradstreet, Jonathan Edwards, Henry Thoreau, William James, T.S. Eliot, Thomas Merton, and Annie Dillard. Cross-listed with REL 413/513.

AMS 433 Oral Tradition: History and Practice (3)
Traces the oral tradition in historical writing and introduces theory and practice of oral history as a methodology basic to historical research. Offered infrequently. Cross-listed with HST 433.

AMS 435 Public History Practicum (3)
Combines classroom study and fieldwork in the community. Students examine the presentation of history to the public, curriculum and public institutions, and issues of public culture to develop projects that incorporate work with a local museum or historical society and a local classroom teacher. Cross-listed with HST 435.

AMS 442 Religion, Society and Culture in New England (4) MPT
Historical investigation of the ways in which religion, especially that of Puritan origin, has interacted with other aspects of social and cultural life in New England from colonial beginnings to the present. Offered infrequently. Cross-listed with REL 442.

AMS 445 Issues in the Study of Native American Religions (4)
This course focuses on the methods by which Native American religions have been studied and represented, and ways in which these methods and representations have been, and continue to be, critiqued. Cross-listed with REL. Prerequisite(s): REL 101 or 242.

AMS 461 American Music (3)
Music in American cultural life, including all levels and types of cultivated and vernacular expressions. Native American musical traditions through our present musical diversity. Cross-listed with MUS. Prerequisite(s): MUS 201-202, 311-312, or permission of instructor.

ANTHROPOLOGY COURSES (ATH- Arts and Science)

ATH 133 Imagining Russia (2)
Survey of Russian history, society, politics, economy, literature, film, and arts from a variety of intellectual perspectives. Classroom lectures plus out of class cultural presentations. Cross-listed with POL/GEO/RUS/HST 133.

ATH 155 Introduction to Anthropology (4) MPF
Introduction to anthropology with emphasis on understanding the social and biological contexts of human life. Topics include the biological and cultural origins of humanity, prehistory, and cultural diversity. IIC.

ATH 175 Peoples of the World (3) MPF, MPT
Provides an appreciation of human cultural diversity around the world and through time. It develops anthropological approaches to understanding cultural differences and similarities in political, social, and economic organization, marriage and family patterns, beliefs and other aspects. Does not count toward the major. IIC, Cul.

ATH 185 Cultural Diversity in the U.S. (3) MPF
Anthropological introduction to the diversity of contemporary cultural life in the United States. Does not count toward the major. IIC, Cul.

Advanced Anthropology Courses

Note: ATH 206, 207, 209 and 254 do not count toward the major.

ATH 206 Introduction to Latin America (3) MPF
An interdisciplinary introduction to contemporary Latin America and the Caribbean through anthropology, art, geography, environment, film, history, literature, music, politics, sports and others. Cross-listed with LAS 208. IIC, Cul, H.

ATH 207 Civilization of the Middle East (3) MPF
Survey of cultural, political, economic, and social developments in the Middle East viewed in geographical and historical perspective, with attention to images of the area prevalent in our society. Cross-listed with GEO and REL 207. IIC, Cul, H.

ATH 209 Civilization of Africa (3) MPF
Survey of cultural, political, economic, and social developments in sub-Saharan Africa, viewed in geographical and historical perspective with attention to images of the area prevalent in our society. Cross-listed with BWS, GEO, HST, and REL 209. IIC, Cul, H.

ATH 212 Introduction to Archaeological Theory and Methods (3)
Introduction to theory, methods, and techniques of archaeology.

ATH 231 Perspectives on Culture (3) MPT
Basic survey of anthropological perspectives on culture. Dominant themes in contemporary cultural anthropology are approached in terms of their history, theoretical evolution, methodological processes and policy applications. Prerequisite: ATH 155, 175, or 185, or permission of instructor.

ATH 235 Imagining and Encountering the Anthropological Other (3)
Explores the emergence of 'the Other' in Western imagination in conjunction with global exploration and colonization, and the

emergence of anthropology as a field for testing those imaginings. Students will be introduced and given opportunities to practice anthropology's basic methods for engaging with and learning from individuals living in cultural worlds different from their own.

ATH 235L Imagining and Encountering the Anthropological Other (3)
Explores the emergence of 'the Other' in Western imagination in conjunction with global exploration and colonization, and the emergence of anthropology as a field for testing those imaginings. Students will be introduced and given opportunities to practice anthropology's basic methods for engaging with and learning from individuals living in cultural worlds different from their own.

ATH 254 Introduction to Russian and Eurasian Studies (3)
Examines the major developments that have shaped Russian and Eurasian culture, society and politics over the last millennium. The course incorporates perspectives from the social sciences, humanities and the fine arts. Cross-listed with POL, HST, REL, RUS 254.

ATH 255 Foundations of Biological Anthropology (3)
Introduction to biological anthropology using framework of evolutionary theory. Includes human origins, especially ancestral hominids, nonhuman primate studies, models of human evolution, and human variation. Prerequisite: ATH 155.

ATH 265 Language and Culture (3) MPT
Survey of literature in linguistic anthropology, including history of the subfield, cognitive anthropology, semiotics, and synchronic and diachronic studies of language and culture. Prerequisite: ATH 155, 175, or 185, or permission of instructor.

ATH 301 Intercultural Relations (3) MPT
Development of cultural awareness; in-depth study of theory and field-based research on the cross-cultural dynamics of cross-national encounters, trends, and events. Cross-listed with ITS 301.

ATH 303 Native American Culture (4) MPT
Description and analysis of Native American cultures from prehistoric to modern times.

ATH 304 Contemporary Issues in Native American Life (3) MPT
Indian-white relationships, reservation communities, urban Indians, pan-Indianism, revitalization, and quest for identity. Prerequisite: junior or senior status or permission of instructor.

ATH 305 Peoples and Cultures of Latin America (3) MPT
Survey of the culture areas of Middle and South America including prehistory, ethnology, linguistics, and contemporary developments. Prerequisite: ATH 155, 175, or 185, or permission of instructor.

ATH 306 Peoples and Culture of Russia (3) MPT
Description and analysis of the cultures of Russia and Eurasia with a focus on non-Russian peoples and contemporary survival. Cross-listed with GEO and RUS 306.

ATH 307 Peoples and Cultures of the Middle East (3) MPT
Survey and analysis of various cultural groups in contemporary Southwest Asia and North Africa.

ATH 309 Introduction to Linguistics (4) MPF
Scope of linguistics: fundamental concepts and methods of linguistic science in its descriptive and historical aspects. Cross-listed with ENG 303, SPN 303, GER 309. V. CAS-E.

ATH 312 Introduction to North American Archaeology (4)
Survey of the prehistory of North America including Middle America from the first peopling to contact times. Taught alternate years with ATH 313.

ATH 313 Introduction to South American Archaeology (4)
Survey of the prehistory of South America from the first peopling to the time of Spanish contact. Taught alternate years with ATH 312.

ATH 314 Old World Archaeology (4)
Introduction to Old World archaeology and the major evolutionary transformations of humankind: the origins and development of culture, the emergence of anatomically modern humans, the domestication of plants and animals, and the rise of complex societies. Prerequisite: ATH 155.

ATH 325 Identity, Race, Gender, Class (3) MPT
Develops conceptual tools and critical perspectives that enable students to better understand and analyze the processes through which identities are constructed and experienced. Learning activities facilitate analysis of individual identities as experienced through the life cycle and across diverse cultural and sub cultural contexts, and build a systematic understanding of the processes and dynamics through which identities and identity groups develop and interact. Cross-listed with BWS, LAS and WMS 325.

ATH 329 Religions of Africa (3) MPT
Indigenous African religious traditions with consideration of their contemporary interaction with other traditions.

ATH 331 Social Anthropology (3) MPT
Exploration of classic and contemporary approaches to social practices and institutions, including kinship, law, political economy, religion and ritual, gender, identity, mobility and violence.

ATH 335L Minority Peoples of Europe (4)
The dominant societies of Europe (German, French, English, Dutch, Swiss, Italian, Spanish, Norwegian, etc), have long been host to immigrant and minority populations. These peoples have received less historical attention in European studies, yet these are the populations that currently tend to be most problematized in the national discourses within the European Union. This course is an examination of minority populations within Europe from an anthropological point of view. Particular focus will be given to understanding the historical and current politics of difference, ideologies of integration, and the processes of cultural change for particular minority groups.

ATH 348 Culture, Illness & Healing (3)
Topics and theoretical approaches of medical anthropology. Explores why disease emerges within particular socio-cultural settings and how people in those settings understand and treat their ills. Topics include historical and current pandemics, culturally specific illnesses, local medical practices, and individuals' struggles with particular ills. Prerequisite: ATH 155 or ATH 175.

ATH 351 Archaeological Field Methods (8)
Introduction to methods and techniques of archaeological research. Practical experience and problems of research design, data collection, and laboratory work.

ATH 351W Archaeological Field Methods (8)
Introduction to methods and techniques of archaeological research. Practical experience in problems of research design, data collection, and laboratory work. Prerequisite: permission of instructor. Summer Workshop only.

ATH 355 Fossil Evidence for Human Evolution (3)
In-depth survey of the human fossil record as interpreted in the light of modern evolutionary theory. Prerequisite: ATH 255 or permission of instructor, or ZOO 206. Taught alternate years.

ATH 358 Travelers, Migrants, and Refugees: Transnational Migration and Diasporic Communities (3)
Explores global flows of people across national and cultural boundaries; investigates ways dispersed people build and maintain social networks, communities, and identities.

ATH 364 Language and Culture in Native North America (3) MPT
Explores interactions between language and culture among native peoples of North America, especially those north of the Rio Grande. Surveys the indigenous languages of North America, explores Native American meaning systems, and examines the importance of language in Native American societies. Prerequisite: ATH 265 or 309; or ENG 303, SPN 303, or GER 309, and junior or senior status, or permission of instructor.

ATH 366 African Oral Traditions (3) MPT
Explores interactions between language and culture among African peoples, especially sub-Saharan peoples. Surveys the indigenous languages of Africa, explores African meaning systems, and examines the uses of language in African societies. Cross-listed with BWS 366. Prerequisite: junior or senior status, or permission of instructor.

ATH 368 Key Questions in Psychological Anthropology (3)
Psychological anthropology focuses on understanding the individual within society, and thus the ways in which culture constructs and is constructed by the individual. As a subfield, psychological anthropology provides theoretical frameworks widely used throughout anthropology and perspectives useful in cross-cultural and clinical psychology. Through this course, students will have opportunities to analyze the role of culture in individual well-being, and to engage with the key questions and the associated key theoretical concepts that are driving the field forward.

ATH 378 History and Culture of Western Biomedicine (3)
We tend to think of biomedicine as a science that is universally applicable, and thus should be universally accepted. In fact, biomedicine is deeply rooted in European history, culture, and

morality. This course explores that history and the contemporary culture of biomedical concepts and practices. In so doing, students will be challenged to critically examine the universality of biomedicine. Prerequisite(s): ATH 155 or ATH 175.

ATH 384 Anthropology of Capitalism: Russia (3) MPT
Introduces students to the comparative study of capitalism as social and cultural form. Topics to be covered include: exchange, labor, consumer society, gender, perceptions of time and space, "transitions" to capitalism, financial markets.

ATH 388 Culture, Art, and Artifacts (3)
Explores the place of artistic expression and related material culture in diverse socio-cultural contexts. It uses various analytical approaches to address the cultural aspects of origins, function, symbolism, gender, psychology, and change emphasizing non-western cultures.

ATH 390 Horizons of Anthropology (1-3; maximum 12; 6 in the major)
Seminar focused on recent anthropological research. Prerequisite: permission of instructor.

ATH 395 Primate Biology and Behavior (3)
Taxonomic survey of the primate order including anatomy, distribution, adaptation, and morphological characteristics of various taxa. Selected primatological topics including primate conservation, reproduction and development, manipulation, and tool use. Prerequisite: ATH 255 or ZOO 206; junior or senior status; or permission of instructor. Cross-listed with ZOO 395.

ATH 402 Anthropology of the American Circus (3)
An anthropological examination of the development of the American circus from its European origins to its modern forms and the role it plays in American culture. Prerequisite: ATH 155 or 185, Junior or Senior status, or permission of instructor.

ATH 411/511 Applied Anthropology (3) MPT
New possibilities for using anthropological principles and methods in contemporary nonacademic settings. Prerequisite: ATH 175, 185, or permission of instructor.

ATH 414/514 Caribbean Archaeology (3)
Examines the prehistory of the Caribbean from its early peopling and continues into the era of European colonial conquest through the lenses of archaeology and ethnohistory.

ATH 415 Caribbean Archaeology Field & Lab Methods (6)
Introduction to field and laboratory methods in archaeology with an emphasis on the islands and coasts of the circum-Caribbean region. Prerequisite: ATH 155 or 212 or 313 or 351W or 414 or 416, and permission of instructor.

ATH 416 Archaeological Site Analysis (3)
How archaeologists piece together a picture of past living societies, exploring the theoretical and methodological issues and the analytical techniques that give insight into past human behavior.

ATH 421/521 Senior Seminar in Anthropology (3) MPC
Focuses on key issues in anthropology, including a review of the tools of the discipline and anthropology's role in the future. Prerequisite: ATH 212, 231, 255, and 265, senior status and anthropology major, or permission of instructor.

ATH 425/525 Ethnographic Field Methods (3)
Organization, observation, measurement, and strategy in ethnographic field research. Prerequisites: ATH 231 or 265, junior or senior status, or permission of instructor.

ATH 426/526 Ethnographic Field Research (4-16) MPC
Collection, recording, and analyzing ethnographic data in a non-western cultural environment. Prerequisite: 12 hours of social science or permission of instructor.

ATH 428/528 Anthropology of Women's Health (3)
Explores how culture shapes women's bodies and health from a cross-cultural perspective; topics include cross-cultural examinations of women's life-cycle, illnesses, bodily violations, and notions of beauty. Prerequisite: ATH 155 or 175 or 185, or permission of instructor.

ATH 431/531 Origins of the State (3) MPT
Explores the concept of the state as a form of social organization and presents theories regarding its origins. Theories offer a variety of explanations, but each uses an approach grounded in sociocultural anthropology, supported by ethnographic and archaeological research. Prerequisites: ATH 155 or 175, junior or senior status, or permission of instructor.

ATH 432/532 Social Identities (3)
Investigates the genesis and maintenance of cultural and ethnic identities through the application of identity theory to ethnographic examples and original student research.

ATH 434/534 Anthropology of Democracy and Citizenship (3)
Explores democracy and citizenship as political, economic, as well as social and cultural processes. Topics to be covered include: democratic transitions, civil society, cultural citizenship, democracy and gender, ethnic democracy and nationalism, elections, globalization and democracy, and democratic alternatives. This course explores anthropological perspectives on democracy and citizenship and focuses on different regions with an emphasis on Eurasia. Prerequisite(s): ATH 155, ATH 175 or permission of instructor.

ATH 441/541 Museum Development, Philosophy, and Social Context (3) MPT
Survey of the development of museums to their current status and study of philosophical, theoretical, and ethical basis behind modern museum forms and functions in architecture, acquisitions and collections, documentation, research, preservation, and interpretation.

ATH 443/543 The Museum Exhibit (3) MPT
Practical course in museum design, exhibit philosophy and interpretation, and in techniques of exhibit installation.

ATH 444 Museum Collections MPT Management and Conservation (3)
Practical course in curatorial techniques and responsibilities in registration, cataloging, security, storage, and handling of museum specimens and problems in the conservation of specimens along with appropriate initial solutions.

ATH 448 Developing Solutions in Global Health (3) MPC
Global health is the study of illness and health as a consequence of bio-cultural processes that are both local and global. This is a transdisciplinary capstone encouraging teamwork to understand the complexities of and develop a grant proposal to address a student-identified global health problem. Prerequisite(s): Junior or Senior status.

ATH 455/555 Heredity, Environment, and Human Society (3)
Genetic, cultural, and ecological factors interacting to influence the behavior and structure of human populations; evolutionary perspectives on traditional and industrialized societies. Prerequisite: ATH 255 or ZOO 206, junior or senior status, or permission of instructor.

ATH 461/561 Language Ideologies & Cultural Identities (3)

Explores the relationship between the ways in which people think about language, or language ideologies, and individual and group identity. Special attention will be given to different ideas about identity and their relation to symbolic and linguistic expression, including orthography, performance, codeswitching, and language choice. Prerequisite(s): ATH 265.

ATH 465/565 Seminar in Linguistic Anthropology (3) MPT
Topics in contemporary theories in linguistic anthropology including the acquisition of language and culture and the formal analysis of cultural data. Prerequisite: ATH 265, junior standing in anthropology, or permission of instructor. Offered alternate years.

ATH 471/571 Ecological Anthropology (3) MPT
Survey of ecological methods and models used by anthropologists in the analysis of cultural-environmental relations and in conservation planning. Prerequisite: ATH 155, 175, or 185, or permission of instructor.

ATH 476/576 Environment and Aging (3)
Examines the changing environmental experience of the older person from several theoretical perspectives. Topics include aging in urban and rural places, age-integrated and age-segregated settings, housing options and housing policy in the U.S., design and supportive technologies, and the cultural meaning of place. Prerequisite: (476) GTY 154; (576) GTY 602, or permission of instructor. Cross-listed with GTY 476/576.

ATH 480 Independent Reading for Departmental Honors (3-6)

ATH 484 Beyond the Field Experience: Processing Cultural Adjustments (3)
Guide students to examine through anthropological analysis how to view their individual sites in terms of broader regional, national, and global patterns and gain a better understanding of cross-cultural contexts. Prerequisite: Permission of instructor.

ATH 491 Anthropology Practicum (1-4; maximum 8)
This course may be taken either in conjunction with a methods course in anthropology or taken as an independent course. Students will conduct supervised research oriented projects, such as IRB training, research protocol development, ethnographic participant-observation, interviews, surveys, and data analysis. This course is envisioned as a flexible offering so that faculty and students can develop learning opportunities in response to current and changing issues and needs in the field. Concurrent with ATH 351, 425, 426, 443.

ATH 496/596 Observing Primate Behavior (4)
Theory and method in the study of primate behavior. Applied behavioral primatology entails original research projects done at an appropriate venue, e.g., Cincinnati Zoo. Prerequisite: ATH 255 or ZOO 206, junior or senior status, or permission of instructor.

ATH 497/597 Socio-Ecology of Primates (3)
Ethology and ecology of living prosimians, monkeys, and apes from comparative and evolutionary perspectives emphasizing field studies of natural populations. Prerequisite: ATH 255 or ZOO 206, junior or senior status, or permission of instructor. Cross-listed with ZOO 497/597.

ATH 498/598 Evolution of Human Behavior (3) MPC
Ethology and ecology of Homo sapiens, from comparative and evolutionary perspectives, drawing on primatology, palaeo-anthropology, and sociocultural studies of traditional societies. Prerequisite: ATH 255 or ZOO 206, junior or senior status, or permission of instructor. Cross-listed with ZOO.

ATH 600 Seminar in Anthropology (3; maximum 9)
Literature and methods in anthropology. Offered infrequently.

ATH 670 Independent Study in Anthropology (1-4; maximum 12)
Advanced independent study in selected topics of current interest in anthropology.

ARABIC COURSES (ARB-Arts and Science)

ARB 101 Beginning Standard Arabic (4)
Study of the Arabic alphabet and sounds system. Builds a foundation of speaking, listening, reading, and writing skills, with cultural appropriate behavior. For students with no prior study of Arabic.

ARB 102 Beginning Standard Arabic (4)
Continues to build communication skills in spoken and standard Arabic. Develops a balanced knowledge of listening, speaking, reading and writing skills. Pre-requisite(s): ARB 101 or equivalent.

ARB 201 Intermediate Modern Arabic (3)
Strengthens listening comprehension, speaking, reading and writing skills in spoken and standard Arabic. Builds knowledge of Arabic language and culture. Prerequisite(s): ARB 102 or equivalent.

ARB 202 Intermediate Modern Arabic (3)
Builds a solid intermediate level of skill in Arabic so that students can read and discuss topics of general interest, including aspects of Arab culture. Prerequisite(s): ARB 201 or permission of instructor.

ARB 230 Traditions of Travel: Journal Narratives in Arabic Literature in Translation (3)
This course examines travel as a major theme in Arabic literature from the classical era to modern time. It considers four types of travel: the nomadic tradition, voyages of pilgrimage and discovery, encounters with outsiders, and Arab diasporas. All works read in English translation.

ARB 301 Advanced Arabic (3)
Focuses on advanced reading and discussion on literary and cultural topics that range from classical to the present day. Integrates comprehension and communication skills in spoken and standard Arabic. Prerequisite(s): ARB 202 or permission of instructor.

ARB 302 Advanced Arabic (3)
Focuses on advanced reading and discussion on literary and cultural topics that range from the classical periods to the present day. Integrates comprehension and communication skills in spoken and standard Arabic. Prerequisite: ARB 301 or permission of instructor.

ARB 680 Directed Study in Arabic Language and Literature (1-4; maximum 12)
Prerequisite: Graduate Standing and permission of department chair and instructors.

ARCHITECTURE AND INTERIOR DESIGN COURSES (ARC-Fine Arts)

ARC 101/102 Architecture Design Studio (5, 5)
Introduction to spectrum of influences which determine environmental form. Emphasis placed upon development of understanding and appreciation of our man-made environment. Methods of communication and development of visual vocabulary capable of understanding and expressing three-dimensional form and space emphasized. Open to majors only.

ARC 105 Introduction to Architecture (3)
Introduction to spectrum of influences which determine environmental form. Emphasis placed upon development of understanding and appreciation of our man-made environment. Methods of communication and development of visual vocabulary capable of understanding and expressing three-dimensional form and space emphasized. Course supports transfers into Architecture and Interior Design, and others interested in exploring Architecture and Interior Design as majors.

ARC 107 Global Design (3)
Introduces the role and influence of design on people and environments within a contemporary global context. Open to student in all majors, but required for students in Architecture, Interior Design and History of Art and Architecture.

ARC 113/114 Methods of Presentation, Representation and Re-Presentation (2, 2)
Introduction to various graphic media as tools of environmental design. Emphasis is placed on use and integration of traditional and digital media as tools of three dimensional analysis and synthesis in design process and representation. Includes orthographics, perspective, sketching, drafting, photography, rendering, and web design. Open to majors only.

ARC 188 Ideas in Western Architecture (3) MPF
General survey of the history of Western architecture and an introduction to the elements of visual thinking as exhibited in architecture. Primarily intended for non-majors. IIA, B, H. (Does not meet requirements for major in architecture or interior design).

ARC 201/202 Architectural Design Studio (5, 5)
Design of the environment as a creative process requiring a language and methods similar yet distinct from other arts. Design projects in man-made environment at different scales, and in natural and man-made environment interface. Introduction to paths in the environmental design curriculum and career opportunities. Prerequisite: ARC 101-102. Open to majors only.

ARC 203/204 Interior Design Studio (5, 5)
Introductory problems in interior design integrating aesthetic, social, technical, and graphic communication requirements. Emphasis on design theory, process, programming, and human factors. Focus on residential and small-scale commercial building types. Prerequisite(s): ARC 101-102. Open to majors only.

ARC 211 Introduction to Landscape and Urban Design (3)
Introduction to principles and elements of the larger environment: landscape and urban design. Co-requisite for architecture majors: ARC 202; co-requisite waived for non-majors.

ARC 212 Principles of Environmental Systems (3) MPF
Understanding of the basic principles that inform the design of environmental and structural systems and their integration into building design. Co-requisite: ARC 211 and concurrent registration in ARC 201 or 203; corequisite and prerequisite waived for non-majors. V.

ARC 213 Graphic Media III (2)
Introduction to the use of graphic media as tools of architectural design. Emphasis placed on the integration of traditional and digital media in the design process. Includes CAD, rendering techniques, perspective, sketching and modeling. Prerequisites: ARC 113 and ARC 114. Concurrent registration in ARC 201 or 203 required.

ARC 214 Graphic Media IV (2)
Introduction to the use of graphic media as tools of architectural design. Emphasis placed on the integration of traditional and digital

media in the design process. Includes 3-D modeling and rendering software, advanced rendering techniques, perspective sketching and modeling. Prerequisites: ARC 113, ARC 114, and ARC 213. Concurrent registration in ARC 202 or 204 required.

ARC 221/222 History and Philosophy of Environmental Design (3, 3) MPF
Thorough and systematic survey of the history of architecture and urban design from prehistoric times to present, concentrating upon the mainstream of Western traditions. Non-majors welcome. IIA, B, H.

ARC 225 Design and Human Behavior (3)
Study of perception and psychological response to the built environment. Emphasis on cultural differences, design for special populations, ergonomics, and anthropometrics.

ARC 301/302 Architectural Design Studio (6, 6)
Study of design processes and methods of implementation in the solution of architectural and other environmental design problems at an intermediate level of complexity. Prerequisite: ARC 201-202; open to majors only.

ARC 303/304 Interior Design Studio (6, 6)
Intermediate problems in interior design integrating aesthetic, social, technical, and graphic communication requirements. Emphasis on retail, institutional, hospitality, and preservation and reuse project types. Prerequisite: ARC 203-204 or ARC 201-202. Open to architecture majors with approval of instructor.

ARC 309 Furniture Design and Construction (3)
Exploration of the process of designing, detailing, and constructing furniture and millwork. Introduction to the materials of architectural millwork and the technologies of construction. Studio exercises provide experience in both design and execution of furniture and millwork. Prerequisite: third-year standing or approval of instructor; required for interior design majors; open to non-majors with approval of instructor.

ARC 321 History of Interiors (3)
Thorough and systematic survey of interior design from prehistoric times to present. Emphasis on the social and cultural influences on the design and evolution of interior environments. Prerequisite: ARC 221-222.

ARC 335 Landscape: Inquiry and Experience (3)
Course is an explanation of cultural and physical landscape concerns through field walks, theoretical and poetic writings, and technical and design exercises.

ARC 336 Landscape Grading and Construction Methods (3)
A companion course to ARC 335 which focuses on the technical construction and manipulation of landscape form through grading (landform), materials, and architectural form.

ARC 401/402 Architectural Design Studio (6, 6)
Study of design processes and methods of implementation in the comprehensive solution of complex environmental design problems. Prerequisite: ARC 301-302; open to majors only.

ARC 402C Senior Studio Capstone Experience (6) MPC
This is a culminating studio in which the exploration of professional issues is placed in dialogue with questions raised by liberal learning. Students will be expected to examine how technical and aesthetic issues interact with professional, social, political, and cultural issues. A weekly seminar component will treat a common set of readings selected to help students compare their discoveries and interrogate their perceptions about their work. In addition, students will bring to the studio the impact of an elective departmental seminar (taken either the prior semester or concurrently). Students will select the related seminar with the prior understanding that its content will extend into and become an integral part of studio integration in the capstone experience. Prerequisite: Intended for architecture majors who have completed 7 semesters of design studio; students with extensive training and background in related design areas may petition the studio faculty for admission. Selection will be based on the strength of an interview and a design portfolio.

ARC 403 Interior Design Studio (6)
Comprehensive studio integrating all programmatic, technical, and professional requirements of a complex project. Emphasis on space planning, systems furniture design, and the preparation of construction drawings and specifications for a commercial office project. Prerequisite(s): ARC 303, 304 or ARC 302. Open to architecture majors with approval of instructor.

ARC 404/504, 405/505, 406/506 Seminars (1-3)
Courses in three of the primary curricular areas: communication process; history and theory; environmental systems. Offerings vary. May include: housing, contemporary architecture theory and practice, vernacular architecture, urban studies, architectural theory, exploration of graphic media, advanced work in building systems, etc. Seminar descriptions available at departmental office during preregistration each semester. **Non-majors encouraged to seek course work in their area of interest.**

ARC 404C Building Information Modeling (3)

ARC 404F Portfolio (3)

ARC 404H Digital Design and Fabrication (3)

ARC 404L Adobe Illustrator 101 (1)

ARC 404Y Mind and Medium (3)

ARC 404Z Public Speaking and Presentation (1)

ARC 405A Architecture Influence (3)

ARC 405B Structural and Post-Structural Theory (3)

ARC 405C Typology and Regionalism (3)

ARC 405E Renaissance Architecture (3) MPT

ARC 405G Gothic Architecture (3) MPT

ARC 405I Renaissance Architecture (3)

ARC 405J Contemporary Arc Issues in Europe (3)

ARC 405Q Housing Case Studies (3)

ARC 405U Urban Field Experience (3) MPC
Focuses upon the development of modern urban design and planning principles, emphasizing Chicago as a laboratory and case study for understanding contemporary urban issues. Two field trips to Chicago are required to confirm the importance of direct field observation methods to the study of urban design and planning patterns. Prerequisite: ARC 211 Principles of Environmental Systems or GEO 201 Urban Economic Geography. Architecture students must be at the 300 level or above to enroll.

ARC 405V Film and Mixed Media: Culture, Place and Identity (3)

ARC 405Y Frank Lloyd Wright and Modernism (3) MPC
This course investigates the new scholarship on Wright in conjunction with an in depth and interdisciplinary examination of his biography, buildings, and writings in a broad artistic, sociopolitical, historical, and cultural context. Each student will conduct a research project from the viewpoint of the student's disciplinary training. Students from all majors are welcome.

ARC 4051 Architecture and Literature (3)

ARC 4054 Contemporary Chinese Architecture (2)

ARC 4055 Project Implementation Process (3)

ARC 406A Design Details for Architecture (3)

ARC 406C Sustainable Design (3)

ARC 406F Building Codes, Estimates and Cost Management (3)

ARC 408 Interior Design Studio (6) MPC
A culminating studio in which the exploration of professional issues specific to Interior Design are related to questions posed by liberal learning. Students are required to examine how spatial, technical, and aesthetic properties of interior design are influenced by both local and global economic, social, political, and cultural issues. This studio course includes a seminar-reading component. The essays are selected to challenge students in thinking critically about their pre conceptions related to design. In addition, students will bring to the studio the impact of an independent study requirement that focused on their individual interests related indirectly to interior design. Students select their independent study with the understanding that its content will extend into and become an integral part of the studio in the capstone experience. Prerequisite: senior standing. Intended principally for interior design majors who have completed seven quarters of design studio. Other design majors will be included by permission of instructor.

ARC 410/510 Statics & Strengths of Materials (3)
An introduction to two dimensional engineering statics and mechanics of materials. Topics covered include the study of rigid bodies in static equilibrium and the study of the mechanics of materials with emphasis on stress and strain relationships.

ARC 411/511, 412/512 Structural Design (3, 3)
Development of basic applied knowledge in the design of structural elements and systems using common constructional materials in accordance with relevant code requirements. Prerequisite: ARC 410/510.

ARC 413/513 Environmental Systems I (3)
Understanding of the basic principles that inform the design of environmental systems, with an emphasis on the building envelope and energy-efficient systems, heat gain and loss, alternative energy systems, the design and integration of climate control systems (heating, ventilating, air-conditioning), and plumbing and fire prevention systems.

ARC 414/514 Environmental Systems II (3)
Understanding of the basic principles that inform the design of environmental systems, with an emphasis on lighting and power/data systems. Course topics include acoustics, life-safety systems, and building service systems.

ARC 417/517 Architectural Materials (3)
Introduction to materials and criteria for selection in architectural structures. Prerequisite: ARC 212.

ARC 418/518 Construction Methods (3)
Systematic approach to construction. Investigation of systems, concepts, and system building. Prerequisite: ARC 417.

ARC 419 Materials of Interior Design (3)
Exploration of the various materials and finishes available to the interior designer, their inherent characteristics, and the ways in which they can be combined into construction assemblies. Emphasis on interior finish materials and textiles. Prerequisite: ARC 417 or permission of instructor.

ARC 426/526 Architecture and Society (3) MPC
Examination of the relation between design professions and varying social-economic orders, with special emphasis given to the effect of this order on theory and practice of architecture.

ARC 427/527 The American City Since 1940 (3) MPT
Examination of the American city and its physical transformation since 1940. Studies how different experiences of the city are conditioned by issues of class, race, gender, culture. Cross-listed with BWS.

ARC 428/528 Japanese Architecture (3)
Survey of architecture, landscape architecture, and urban design of Japan from prehistoric to modern times. Offered infrequently.

ARC 430/530 Plants in Design (2)
A workshop-style sprint course that investigates the basic ideological, conceptual, and technical issues that affect and influence planting designs. Prerequisite: BOT 155 or BOT 241 or permission of instructor.

ARC 435/535 Theory and History of Landscape Architecture (3)
Examination of the role of the landscape architect in the environmental design process through discussion of history, methodology, and practice of contemporary landscape design.

ARC 441/541 Professional Practice (3)
Awareness of current legal problems and professional ethics relative to handling building projects from feasibility studies through development drawings, contract documents, bidding, and construction observation. Prerequisite: fourth year standing.

ARC 444 Professional Practice in Interior Design (3)
Investigation of processes, practices, and ethics involved in interior design profession. Course emphasizes integration of specifications, cost estimating, office and project management, and contract writing into the design process. Prerequisite: fourth-year standing or approval of instructor.

ARC 446/546 The Visual Manifesto (3)
Examination and production of the architectural manifesto in written, graphic, and multimedia form. Involves the integration of text, traditional graphic media and computer software. Prerequisites: Open to Junior, Senior, and Graduate majors only. Offered infrequently.

ARC 450/550 Environmental Futures (3, 3)
A survey of current and historic theory about the future of the built environment, including the work of futurologists, visionary architects, and professional forecasters. Offered infrequently.

ARC 451/551 Modern and Contemporary Architecture (3)
Survey of stylistic technical and ideological development in architecture in late 19th and 20th centuries.

ARC 452/552 Recent Architecture Theory (3)
This seminar is designed to give students an understanding of the theory underlying contemporary architecture and its forms and to develop critical thinking about the relationship between history, form and the philosophical climate which gave rise to the ideals of Modernism and its legacies.

ARC 458/558 Cities of Difference (3)
Feminist geographic perspectives on urban theory and on the construction, use, and transformation of urban space. Prerequisite: GEO 201 or permission of instructor. Cross-listed with ARC 458/558.

ARC 481/581, 482/582, 483/583, 484/584 Design Studio for M.Arch. Graduate Students (6, 6, 6, 6)

ARC 490/590 Independent Studies (1-3)

ARC 601/602 Architectural Design Studio (6, 6)
Professional-level architectural studio; variable topics.

ARC 613 Graphic Media I (2-3; maximum 3)
An introduction to various graphic media as tools of environmental design. Emphasis is placed on the use of traditional media as tools of 3-dimensional analysis and synthesis in design process and representation. Includes traditional media exploration, an introduction to ways of seeing to gain visual knowledge through freehand sketching and life drawing followed by an introduction to basic orthographic, paraline, and perspective drawing principles.

ARC 614 Graphic Media II (2-3; maximum 3)
An introduction to various graphic media as tools of environmental design. Emphasis is placed on the use of traditional and digital media as tools of 3-dimensional analysis and synthesis in design process and representation. Includes orthographics, perspective, sketching, drafting, photography, rendering, and web design.

ARC 615 Graphic Media III (2-3; 3 maximum)
An introduction to computer drawing/drafting and 3-D modeling software to investigate the computer as a design tool. The course encourages experimentation with mixed media, building upon the traditional skills of drawing, model building, and rendering. Continued studies in perspective and orthographic drawing as well as rendering techniques involving watercolor and marker will be integrated as an additional focus throughout the course.

ARC 616 Graphic Media IV (2-3; maximum 3)
An introduction to computer 3-D modeling software to investigate the computer as a design tool. The course will also explore mixed media as an advanced course in traditional wet media (marker and watercolor) and their integration with digital media as a powerful design and graphic tool. Continued studies in perspective and orthographic drawing as well as highly advanced rendering techniques involving watercolor, marker, and the computer will be emphasized.

ARC 621 History of Architecture I (3)
Thorough and systematic survey of the history of architecture, interior design, and planning from Greece through the 17th Century, concentrating on the mainstream of Western traditions.

ARC 622 History of Architecture II (3)
Thorough and systematic survey of the history of architecture, interior design, and planning from the 18th to the 21st Century, concentrating on the mainstream of Western traditions.

ARC 634 Architectural Theory (3)
Introduction to techniques and procedures involved in methodical architectural research. Each student undertakes research project on a particular aspect of design. Open to majors only.

ARC 636 Design & Research Methods (3)
Essentials of architectural and cultural theory and possible research methods in support of theses and scholarly activity.

ARC 690 Independent Study (1-3)

ARC 700 Thesis Coursework (1)
Students in the M.Arch. II and M.Arch. III programs are required to develop a thesis that contains both a written and a design component. Students pursue this research independently in the context of a committee that typically includes a chair and at least one reader during the summer between the ARC 600 and ARC 700 studio levels and into the fall term. ARC 700 serves as an independent study research course directed by the student's thesis mentor leading toward the development of a professional journal format paper and design project reviewed by a jury of professionals.

ARC 701 Architectural Pre-Thesis Design Studio (6-12)
Comprehensive, professional-level architectural studio with visiting critics. Open to majors only. (6) Students engage in design issues facilitated through a series of thesis preparatory problems during the first half of the term. Preparatory problems are conducted when possible with visiting scholars and may involve travel to engage significant scholars and design problem settings. The second half of the term involves the presentation of the written thesis research document to a panel of nationally recognized critics and a final end of the semester presentation focusing on the student's thesis program and site design.

ARC 702 Thesis Design (6-12)
Students select a major field of interest and pursue in-depth study and research into special areas of concentration, such as architectural design, environmental controls, architectural structures, or urban and regional planning. Open to majors only.

ART COURSES (ART-Fine Arts)

ART 107 Art in a Global Context (3)
This course is designed to give students a historical overview of art throughout the world. It will address different ways of seeing according to the cultural and historical context of varying geographic regions and time periods. As an introductory course to the study of art history, it will allow students the opportunity to discover areas of the world that they might consider for future study, including language and summer study in one or more of the countries. MPF IIA, IIB, IIIB, H.

ART 111 Visual Fundamentals (3)
Introduction to organization of two-dimensional picture plane using principles of design and color theory. 3 Lab. includes Lec. Special computer requirement; contact department.

ART 121/122 Drawing I, II (3, 3)
Introduction to the basic problems of drawing. ART 121 is prerequisite for ART 122. 3 Lab. includes Lec.

ART 147 Beginning Art Photography (1)
Basic 35 mm camera operation, black and white darkroom technique and theories of photographic composition. 35mm manually adjustable camera required.

ART 149 Beginning Digital Photography (1)
Intro to digital photography. Camera controls, file management, photoshop enhancements, and printing. Emphasis will be placed on composition, lighting and subject matter. Digital camera required. No camera phones.

ART 151 Introduction to Design (1)
An introductory course in the graphic design program that defines the field and gives an overview of the professional venues in which designers practice.

ART 155 Beginning Drawing (1)
Basic drawing instruction to non-art majors. Exploration of line, value, media measurement, and composition.

ART 160 Beginning Ceramics (1)
Basic ceramic construction, composition, and firing techniques.

ART 165 Beginning Metals (1)
Introductory metalsmithing and design for the beginning student.

ART 170 Basic Woodworking (1)
Basic course to provide foundation exercises and instruction in the use of woodworking tools and machinery.

ART 171 Visual Fundamentals: 3-D (3)
Basic foundation studio course dealing with methods, materials, principals of organization and elements of design applied to the third dimension. Prerequisite: Art 111.

ART 181 Concepts in Art (3) MPF
Introduction to visual and thematic concepts as applied to art in various cultures and historical periods. Offered only on the Hamilton and Middletown Campuses. IA.

ART 183 Images of America (3) MPF
Investigating the power and influence of visual art imagery, either about, targeted to, or made by diverse segments of historic and contemporary American society and how this imagery has helped or hindered our coming together as a diverse nation. Explores the use of art stereotypes as a basis for evaluation, how visual components help define culture, the decoding of cultural codes and how the idea of taste and aesthetics influences the way we see ourselves and others. Offered only on the Middletown campus. IIA, IIB, IIIA.

ART 185 India and Southeast Asia (3) MPF
Historical survey of art in India and Southeast Asia. This region witnessed the origins and development of two major world religions, Hinduism and Buddhism, as well as the brilliant manifestation of a third, Islam. Emphasis placed on understanding cultural foundations of Hindu, Buddhist, and Islamic art. IIA, B, H. CAS-B.

ART 187 History of Western Art: Prehistoric-Gothic (3) MPF
Historical survey of Western art, including development of concepts necessary for analysis and appreciation of great works of art. IIA, B, H. CAS-B.

ART 188 History of Western Art: Renaissance - Modern (3) MPF
Historical survey of Western art, including development of concepts necessary for analysis and appreciation of great works of art. IIA, B, H. CAS-B.

ART 189 History of Western Dress (3) MPF, MPT
Provides an overview of Western dress from ancient times to the present. Emphasis placed on the social and cultural factors that have influenced the evolution of dress for both men and women. IIA, B, H.

ART 195 The Profession of Art Education
This course examines critical and theoretical issues in black feminism from slavery to the present. One of the central goals of the course is to interrogate race, gender, class and sexuality in the context of black women's thoughts and experiences. The class will read, discuss and analyze a wide variety of texts including critical essays, films, selected fiction, print and visual media.

ART 221/222 Drawing III, IV (3, 3)
Intermediate-level drawing problems. Prerequisite: ART 121, 122. 3 Lab. includes Lec.

ART 231 Painting I (3)
Introduction to the use of oil and/or water base media with emphasis on pictorial structure. Prerequisite: ART 111, 171, and 121-122, or permission of instructor. 3 Lab. includes Lec.

ART 233 Global Perspectives on Dress (3) MPF
Provides the student with an overview of the study of dress with emphasis on the relationship between dress and its meaning in a variety of cultures. Dress in its physical and social environments and as an art form will be examined. IIA.

ART 235 The Gods are Here: Spirituality and Text in African Art (3)
Explores critical historical narratives and the many layers of meanings in the arts and cultures of the African peoples. Examines the role of African art as agent of social control and emphasizes the role of African gods and deities in ascribing form and use to African art and spirituality.

ART 241 Printmaking I (3)
Studio introduction to printmaking media and processes with emphasis on intaglio and relief printing such as etching and woodcut. Composition and concepts for pictorial communication. Prerequisite: ART 111, 121, 122, 171, or permission of instructor.

ART 251 Typography (3)
This course concentrates on design principles specific to typography. Project based topics include: design drawing, letterform constructions, and the visual enhancement of language and message. Typographic methods and terminology of both traditional and digital processes are also covered. Prerequisite: ART 111, 121, 122, 151, 171, and successful completion of graphic design portfolio review or permission of instructor.

ART 252 Image (3)
This course covers visual and symbolic communication, including generation of visual symbols, graphic simplification, communication of content through form, and visual metaphor. Visual problem-solving skills and concepts are addressed. Further development of technical skills. Prerequisite: ART 251.

ART 254 Kinetic Type (3)
This second year course is intended to expose students to a more interpretive use of typography through the use of motion and time. Such knowledge will be applied to projects such as film and television titles and previews, information kiosks, websites, and presentations. The focus on kinetic principles and motion aesthetics will be an ideal precursor to Interactive Design, taken in the third year.

This course is also intended to provide exposure to current multimedia authoring tools, but is not intended to be a software focused course, like the former ART 254 Digital Design. Prerequisites: ART 111, 121, 122, 151, 171, successful completion of the graphic design portfolio review, or permission of instructor.

ART 255 Introduction to Digital Imaging (3)
This introduction course will cover the basics of digital camera operation, adjusting and manipulating images in Adobe Photoshop and digital printing methods.

ART 256 Design, Perception & Audience (3) MPF
An introduction to perception and audience issues for the artist/designer and those interested in art/design, to learn how audiences perceive, receive and react to visual messages. Universal design principles, usability, learning theory, communication theory and semiotics are discussed. IIA.

ART 257 Photography (3)
Introduction to basic 35 mm camera operation, black and white darkroom technique and aesthetic approaches to art of photography. Prerequisite: ART 111, 121, 122, or 171, or permission of instructor.

ART 259 Aesthetics and Computation (3)
Explores computation as aesthetic medium, examining subject matter from historical, conceptual and technical perspectives. Utilizing Processing programming environment, students develop basic programming literacy. Processing language semantics and syntax, and graphics programming are covered. Prerequisite: Working knowledge of both the Macintosh or PC computer and some exposure to any desktop publishing or computer graphics software. Cross-listed with IMS.

ART 261 Ceramics I (3) MPT
Exploring plastic materials in three-dimensional form using coil, slab, pinch, and extruded clay and wheel throwing as an introductory experience in clay. Traditional and contemporary approaches explored. Several decorative methods and firings extend perception of the entire ceramic process. Prerequisite: ART 111, 121, 122, 171, or permission of instructor. Materials fee. 3 Lab. includes Lec.

ART 264 Jewelry Design and Metals I (3) MPT
Exploration of three-dimensional forms in nonferrous metals. Introduction to basic metalworking processes and techniques of the jeweler and silversmith. Prerequisite: ART 111, 121, 122, 171, or permission of instructor. Materials fee. 3 Lab. includes Lec.

ART 271 Sculpture I (3) MPT
Studio course to provide the beginning sculpture student with a foundation in critical aesthetic thinking and of methods, techniques, and materials used in the process of making sculpture. Prerequisite: ART 111, 121, 122, 171, or permission of instructor. Materials fee. 3 Lab. includes Lec.

ART 278 Religious Text and Image in East Asian Art (3)
A study of the illustration of Buddhist texts in China, Korea, and Japan. Students will read sutras in English translation and identify illustrations of them in a variety of historical and contemporary media.

ART 279 Buddhism and Culture: China and Japan (4) MPF
Deals with East Asia and time span of more than 15 centuries (from 4th through 20th). Provides historical overview of the development of Buddhism in China and Japan with a clear definition of theoretical framework of this religion. Investigates nature and extent of Buddhist influence on the imagination of intellectuals and lifestyle of the populace. All cultural phenomena, thematically treated, are interpreted within historical, social, economic, and institutional contexts, and in contrast to those of the West. Cross-listed with JPN 279 and REL 279. IIIB, H. CAS-A-B. Offered infrequently.

ART 281 Contemporary Art Forum (1; maximum 3)
This course is a co-requisite course for BFA studio majors, taken three times together with these Studio courses: ART 111 or 171 or 121 or 122 or 221 or 222. A lecture and discussion, experienced based course designed to expose students to current trends and issues in the art world.

ART 282 Art and Politics (3) MPF, MPT
Explores relationship between art and politics as manifested in images and monuments of different time periods. Emphasis is not on chronological development, but on the shifting relationship between art and politics. Cross-listed with WMS. IIA, B, CAS-B.

ART 283 Modern America (3)
A chronological survey of modern American art and visual culture aimed to develop an understanding and critical awareness of representation. Addresses major art movements in historical context with an emphasis on issues related to nationality, cultural exchange, identity, the role of the artist and society, the human body, and nature.

ART 285 Writing and Research in Art and Architectural History (3)
A course for beginning art history majors and others interested in a critical approach to reading texts, researching, and talking about works of art. Focuses on research methods, critical thinking, reading and writing, and formal presentation techniques. Students will learn how to recognize and use art historical methodology; how to read critically in order to determine an author's thesis, argument, approach(es), and biases; and how to perform specialized research using the methods discussed in class, resulting in a class presentation and research paper.

ART 286 China, Korea, and Japan (3) MPF
Introduction to major artistic traditions of China, Korea, and Japan. Emphasis placed on understanding the cultural foundations of Bronze Age art in East Asia, the impact of Buddhism in the region, and later painting and ceramic traditions. IIA, B, H. CAS-B.

ART 288 Western Art in Context: 1500-2000 (3)
Thematic approach to the art of Europe and North America. Each area of art covered will be framed by one or two broader issues that will relate to the specific historical period or theoretical concern. Students will investigate these issues using both primary and secondary source material and through closely examining works of art in the Miami University Art Museum.

ART 295 Early Childhood Art Education (3)
Philosophy, psychology, methodology, and evaluation of artistic growth and development for grades Pre-K through 5th. Emphasis on developmental growth through art; student art learning styles; basic planning of instructional strategies, communication, and assessment. Lecture-discussion-workshop experiences course for students majoring in art education.

ART 296 Middle to Adult Art Education (3)
Philosophy, psychology, methodology, and evaluation of artistic growth and development from middle school to adult art education. Emphasis on student learning and art orientations, planning of instructional strategies, assessment, archival research, ethnography, and demonstration learning. Lecture-discussion-hands on course for students majoring in art education.

ART 308 The Child & The Art Experience (3)
Philosophy, curriculum content, visual learning development, and evaluation. Creative laboratory experiences concerning art activities appropriate for various stages of early childhood development. Meets state licensure requirements in visual art for early childhood majors.

ART 308E The Art Experience for Early Childhood (3)
Philosophy, curriculum content, visual learning development, and evaluation. Creative laboratory experiences concerning art activities appropriate for various stages of early childhood development. Meets state licensure requirements in visual art for early childhood majors. 1 Lec. 2 Lab.

ART 309 The Arts of African Peoples (3)
Introduction to the arts of Africa and exploration of the central function of the arts in African systems of thought. The role of ancestors and deities will be explored, as will the context within which the arts are produced and used.

ART 311 Chinese Painting History (3)
A thematic and chronological study of the various genres of Chinese painting, emphasizing major issues and artists from the Han period to the twentieth century. Prerequisite: ART 186 or permission of instructor.

ART 312 Japanese Painting and Prints (3)
Study of major painters and genres in the history of Japanese art, including Buddhist painting and Japanese print. Prerequisite: ART 186, ART 378, or permission of instructor.

ART 313 Early Christian, Byzantine, and Islamic Art (3)
Surveys the art and culture of the Early Christian, Byzantine, and Islamic worlds from the beginning of Christian art in the 2nd century to around 1400. Emphasizes points of contact, interaction, and conflict between the three cultures as expressed in images, urbanism, and architecture of the Mediterranean world. Prerequisite: Advanced standing or permission of instructor.

ART 314 Italian Renaissance (3) MPT
Surveys the visual arts of Italy from 1300 to 1590 and especially the artistic centers of Florence, Rome and Venice. Examines the individuals, corporations, as well as the various historical, social, and religious phenomena driving the production of painting, sculpture, and architecture. Prerequisite: Advanced standing or permission of instructor.

ART 315 North European Renaissance Art (3)
Information and insight toward an understanding of the major developments in the history of art from the Late Gothic to the sixteenth century in Northern Europe. The relationship of these trends with concurrent political events, social, religious, and philosophical ideas will be discussed at times to enhance this understanding. Prerequisite: advanced standing or permission of instructor. Prerequisite: Advanced standing or permission of instructor.

ART 316 Baroque Art in Europe (3)
This course covers the painting, sculpture and architecture of Europe from the late sixteenth century through the early eighteenth century. It will focus on the individuals, corporations, as well as the various historical, social, and religious phenomena driving the production of painting, sculpture, and architecture. Prerequisite: Advanced standing or permission of instructor.

ART 317 The Arts of Colonial Latin America (3)
Explores the art of Iberia and Latin America, with a particular emphasis on the latter, from 1492 to 1810. Topics to be examined include conquest, assimilation, integration, and resistance as it informed the predominantly religious art and urban fabric of Latin America. Prerequisite(s): Advanced standing or permission of instructor.

ART 318 Modernism, Modernity, and the Visual Arts (3)
This course addresses some of the significant movements and developments in art and culture between 1860 and 1960. Artistic debates in Europe and the United States will be discussed in relation to a historical framework of cultural changes brought about by capitalism, industrialization, war, and revolution. Prerequisite(s): Advanced standing or permission of instructor.

ART 319 Postmodern Art and Theory (3)
Examines issues that highlight the shifting and often conflicting nature of what is called the postmodern era. Concentrates primarily on meaning(s) as well as stylistic, historical, and theoretical developments of painting, sculpture, conceptual and performance art, installation, and non-traditional photography and video/film work. Prerequisite(s): Advanced standing or permission of instructor.

ART 321/322 Drawing V, VI (3; maximum 6)
Drawing problems requiring advanced conceptual and technical skills. Prerequisite: six semester hours in ART 221, 222. 3 Lab. includes Lec.

ART 323 Thematic Studio (3-4; maximum 7)
Advanced experimental studio class that emphasizes the development of individual content and forms of expression. Students work in a variety of mediums. Studio practice is complemented by lectures, demonstrations, readings, discussions on topics corresponding to each project. Prerequisite(s): ART 222.

ART 331/332 Painting II, III (3, 3)
Painting problems using both representational and abstract approaches in various painting media. Prerequisite: ART 231. 3 Lab. includes Lec.

ART 340 Internship (1-3, maximum 6)
Pre-professional practical experience for qualified students. Must be arranged through a supervisory department faculty member.

ART 341/342 Printmaking II, III (3, 3)
Lithography and intaglio techniques. Prerequisite: ART 241. 3 Lab. includes Lec.

ART 350 Illustration (3)
Emphasizes development of drawing and painting techniques significant to the creation of illustrations for publication and related pragmatic conditions. Addresses problem analysis, visual research, media and space constraints, cost and time factors as well as personal stylistic growth in this specialized discipline. Lecture and slides supplement studio work. Prerequisite: junior and senior art majors, ART 221, 222, 231, 251.

ART 351 Print Design Systems (3)
This course synthesizes concepts learned in typography and graphic form through the development of visual programs for sequential viewing. Ideas of sequence and series, organization, and typographic hierarchy are addressed through poster, brochure, and book design. More complex Macintosh skills addressed. Prerequisite: ART 251, 252, 254.

ART 352 Identity Systems (3)
Through the generation of marks, symbols, logotypes and their applications, discusses the practical and aesthetic concerns surrounding corporate identity systems. More complex problem-solving skills explored. Prerequisite: ART 351, 355.

ART 353 The Business of Design (3)
An introduction to basic business issues relevant for graphic designers in today's competitive marketplace, including the development of strategic marketing skills, finances and budgeting, the creation of client contracts, basic production knowledge, and other business management issues. Prerequisite: ART 252, 254, or permission of instructor.

ART 354 3-Dimensional Design (6)
This course focuses on three dimensional concepts and design considerations through the exploration of such projects as signage and packaging. A majority of the semester is spent completing a comprehensive multidisciplinary project with architecture and interior design. Prerequisite: ART 351.

ART 355 Interactive Design (3)
Complements the traditional design coursework with the investigation of design for interactive media. The influence of time and non-linear organization on a design solution will be carefully studied through various interactive applications. (i.e. websites, interactive CDs, and motion graphics). Prerequisites: ART 251, 252, 254.

ART 357/358 Photography II, III (3, 3)
Continued development of aesthetic, conceptual and technical traditions in photography. Emphasis on black and white printing skills and personal expression. Introduction to color printing. Prerequisite: ART 257.

ART 359 Interactive Programming with ActionScript (3)
Presents an introduction to Macromedia Flash's ActionScript programming language. Designed as a multi-disciplinary creative programming course. Fundamental ActionScript programming concepts covered, including language syntax and semantics, the Flash development environment, basic 2D graphics programming, and introduction to object-oriented programming. Through a series of lectures, hands-on practice, and group critiques, engaging programming examples will be explored. Prerequisite(s): Working knowledge of both the Macintosh or PC computer and some exposure to any desktop publishing or computer graphics software. Cross-listed with IMS.

ART 361 Ceramics II (3) MPT
Pottery, design, forming, wheel throwing, hand building, decoration, glazing, and firing. Prerequisite: ART 111, 121, 122, 171, 261. Materials fee. 3 Lab. includes Lec.

ART 362 Ceramics III (3) MPT
Pottery and sculpture design, forming, wheel throwing, decoration, glazing, and firing. Clay and glaze materials and formulations covered. Prerequisite: ART 261, 361 or permission of instructor. Materials fee. 3 Lab. includes Lec.

ART 364 Jewelry Design and Metals II (3) MPT
Creative designing of two- and three-dimensional forms for contemporary jewelry and holloware. Development of basic metals processes: fabrication, raising, stonesetting, forging, casting. Prerequisite: ART 264. Materials fee. 3 Lab includes Lec.

ART 365 Jewelry Design and Metals III (3) MPT
Intermediate problems in design and process for jewelry, holloware and flatware. Prerequisite: ART 364. Materials fee. 3 Lab includes Lec.

ART 371 Sculpture II (3) MPT
Studio problems based on concepts applied to various three-dimensional methods, techniques, and materials. Prerequisite: ART 271. Materials fee. 3 Lab. includes Lec.

ART 372 Sculpture III (3) MPT
Intermediate studio problems based on concepts applied to three-dimensional methods, techniques, and materials. Beginning emphasis on individual direction. Prerequisite: ART 371. Materials fee. 3 Lab. includes Lec.

ART 381 Greek and Roman Architecture (3) MPT
Architecture in the Greek, Hellenistic, and Roman world; development and usage of Doric, Ionic, and Corinthian orders in the Greek world and the Roman response and adaptation. Various architectural forms, both public and private. Offered infrequently.

ART 382 Greek and Roman Sculpture (3) MPT
Sculpture in the Greek, Hellenistic, and Roman world. Emphasis on the development of the human figure in the Greek world with attention to sculptures of Pheidias, Praxiteles, Scopas, and Lysippos. The Roman response to the Greek Canons is evaluated and development of Roman portrait sculpture is critically reviewed. Offered infrequently.

ART 383 Greek and Roman Painting (3) MPT
Greek and Roman painting; examination of the development of Greek vase painting with special emphasis on red and black figure vase painting; examination of tomb paintings of Etruscan civilization with study of Roman painting from Pompeii and Herculaneum with attention to styles, perspective, methods of painting, and uses of color. Offered infrequently.

ART 390 Supplemental Problems (1-3; maximum 6)
Supplemental problems in any one of the department's 300-level studio areas. Prerequisite: concurrent enrollment in related 300-level course and permission of instructor.

ART 391 Art and Architecture History Field Study (3)
Structured experience outside the classroom; internship or study abroad. Restricted to majors who have completed the sophomore year. Pre-requisites: ART 285 and at least six additional upper division credit hours in the history of art and architecture. May be repeated for additional credit.

ART 395 The Art Teacher (3)
Through individualized and collective creative involvement, the preservice PreK-12 art teacher will acquire knowledge of development of major learning theory, aesthetics, art criticism, art media appropriate for the learning environment, the constructs of the creative process, observation and assessment methodologies, sources for written and visual materials, processes applicable for students PreK-12, presentational skills, and effective oral communication most appropriate for the public schools and related learning environments. Mastery of the knowledge and skills to develop and present these constructs will be demonstrated through active performance of best practices in teaching/learning.

ART 419 Supervised Student Teaching in Art (16) MPC
Supervised teaching in a public school or approved social agency. Regularly scheduled seminars with the university supervisor, as well as meetings with both the cooperating teacher and supervisor in assisting the student teacher in practice teaching. Prerequisites: CSE 151, EDP 201, EDL 204, EDL 318, EDP 303, EDP 352, EDT 440, and the majority of art requirements, specifically, ART 111, ART 171, ART 187, ART 188, ART 231, ART 331, ART 241, ART 190.E., ART 201, ART 303, ART 401, and two of the following three courses: ART 264, ART 261, ART 271. Miami University g.p.a. of 2.50 and g.p.a. of 3.0 in the major field.

ART 421 Drawing VII (3)
Application of concepts, techniques, and design through various painting media. Emphasis on personalized statement by the student. Designed to complete the logical sequence of drawing offerings. Prerequisite: ART 321, 322. 3 Lab. includes Lec.

ART 422 Drawing VIII (3)
Application of concepts, techniques, and design through various painting media. Emphasis on personalized statement by the student. Designed to complete the logical sequence of drawing offerings. Prerequisite: ART 321, 322. 3 Lab. includes Lec.

ART 431/531 Painting IV (3)
Application of concepts, techniques, and composition through various painting media. Emphasis on a personalized statement by the student. Prerequisite: ART 331, 332. 3 Lab. includes Lec.

ART 432/532 Painting V (3)
Application of concepts, techniques, and composition through various painting media. Emphasis on a personalized statement by the student. Prerequisite: ART 331, 332. 3 Lab. includes Lec.

ART 441/541 Printmaking IV (3)
Emphasis on personal investigation in intaglio, lithography, silkscreen, or relief processes. Prerequisite: ART 341, 342. 3 Lab. includes Lec.

ART 442/542 Printmaking V (3)
Emphasis on personal investigation in intaglio, lithography, silkscreen, or relief processes. Prerequisite: ART 341, 342. 3 Lab. includes Lec.

ART 450 Alternative Design Media (3)
This course explores design media used as artistic expression, as well as a vehicle for visual communication. Students will be challenged to think conceptually about the form and content of traditional media. Prerequisite: ART 111, 121, 122, 171 or permission of instructor.

ART 451 The Professional Portfolio (3)
Includes revision of existing pieces to professional standards and the execution of work to complete the professional portfolio. Photographing of work, design, craft, organization, and presentation of the portfolio discussed. Covers topics related to the business of graphic design and the production knowledge necessary to work in today's profession. Prerequisite: ART 352, 354.

ART 452 Senior Degree Project (3) MPC
Individual projects proposed, researched, and executed. Enables students to learn how to define and limit a project, choose the best format for a particular communication goal, organize and schedule time, and set and meet interim goals. Participation in a gallery exhibit is a requirement of this course. Prerequisite: ART 451.

ART 453 Highwire Brand Studio (4) MPC
Multidisciplinary practicum involving students from marketing, graphic design and other relevant majors. Competing, multi-disciplinary student teams work for a semester on an actual client's current brandings and marketing communications challenge. Campaign solutions typically include primary research and market analysis, campaign strategy development and graphic design for advertising and other sales support materials. Incorporates contemporary technology and industry standard materials and research. Expertise and facilities of marketing, graphic design and other relevant majors are fully integrated within each team. Each campaign is formally presented to the client at the end of the semester. Prerequisite: Permission of instructor.

ART 455/555 Design History and Cultural Contexts (3)
Overview of the history and cultural context of various design disciplines. The prevalent styles and design traditions expressed in the mass-produced products of both Europe and America from the Industrial Revolution to the present. Prerequisite(s): ART 187, 188, advanced standing or permission of the instructor.

ART 457/557 Photography IV (3)
Experimental techniques with emphasis on advanced technical skills and aesthetics. Prerequisite: ART 357, 358.

ART 458/558 Photography V (3)
Emphasis on technical proficiency in color printing, hand-coloring, and personal expression in individualized projects. Prerequisite: ART 457/557.

ART 461/561 Ceramics IV (3)
Advanced problems in ceramic design emphasizing individual creativity and requiring technical proficiency. Prerequisite: nine semester hours in ceramics. Materials fee. 3 Lab. includes Lec.

ART 462/562 Ceramics V (3)
Advanced problems in ceramic design emphasizing individual creativity and requiring technical proficiency. Students must complete a professional portfolio of work. Prerequisite: 12 hours in ceramics. Materials fee. 3 Lab. includes Lec.

ART 464/564 Jewelry Design and Metals IV (3)
Advanced design and technical problems in jewelry, holloware, flatware, and/or other areas of individual interest. Emphasis on personal expression and research, portfolio development. Prerequisite: ART 365. Materials fee. 3 Lab. includes Lec.

ART 471/571 Sculpture IV (3)
Advanced problems in sculpture requiring skill with sculpture processes and ability to interpret ideas three-dimensionally. Prerequisite: ART 372. 3 Lab. includes Lec.

ART 472/572 Sculpture V (3)
Advanced problems in sculpture requiring skill with sculpture processes and ability to interpret ideas three-dimensionally. Emphasis on creative personal direction, professional portfolio, and research. Prerequisite: ART 471/571. Materials fee. 3 Lab. includes Lec.

ART 480 Seminar in Art History (3)
Seminar for advanced students. Topics vary.

ART 484/584 High Renaissance and Mannerist Art (3)
Art of the High Renaissance and Mannerist periods (ca. 1500 - 1600) in Italy and Northern Europe. Prerequisite: advanced standing or permission of instructor.

ART 485/585 Art of the Early 19th Century (3) MPT
Painting and sculpture in Europe and the United States from late 18th century to mid-19th century with special emphasis on neoclassicism and romanticism. Prerequisite: advanced standing or permission of instructor.

ART 486/586 Art of the Late 19th Century (3) MPT
Painting and sculpture in Western Europe and the United States from mid-19th century to the turn of the century with special emphasis on realism, impressionism, and post-impressionism. Prerequisite: advanced standing or permission of instructor.

ART 487/587 Art of the Early 20th Century (3) MPT
Development of modernist painting and sculpture in Western Europe and the United States from 1900 to 1945. Prerequisite: advanced standing or permission of instructor.

ART 489/589 Art of the Late 20th Century (3) MPT
Painting, sculpture, architecture, and allied arts from 1945 through post-modernism. Prerequisite: advanced standing or permission of instructor.

ART 490 Supplemental Problems (1-3; maximum 6)
Supplemental problems in any one of the department's 400-level studio areas. Prerequisite: concurrent enrollment in related 400-level course and permission of instructor.

ART 492 Professional Artist's Portfolio and Exhibition Experience (3) MPC
Supervised development of individual professional artist's portfolio and participation in a group or solo gallery exhibition. Periodic scheduled meetings with peers and faculty mentors in the individual studio areas. With permission of instructor, students who have completed a focus sequence in one of the vertical studio offerings may be permitted to enroll in this studio Capstone. Prerequisite: senior standing in one of these studio concentrations: ceramics, metals, photography, painting, printmaking, or sculpture; must be taken concurrently with a 400-level studio.

ART 493/593 Art Curriculum in the School (3)
In accordance with State of Ohio Content Standards for Visual Arts (December, 2003) students access PreK-12 prior knowledge of child and adolescent development and the teaching role to develop extended-length, performance-based, curricular sequence concepts that meet and/or exceed the Ohio standards. Content appropriate for all learners is developed through reflection on contemporary social and cultural constructs, current and relevant philosophies of teaching and learning, and best pedagogical practices. Authentic assessment - theoretical and applied - and current, major issues in the classroom and the greater learning/teaching Community, as related to curriculum, are examined and applied. Open only to Art Education Majors. Pre-requisites: ART295, 296, and 395.

ART 495/595 Art Education Practicum (3)
Supervised participation in Practicum Art School, with the development of proficiency in planning of instruction, effective communication, classroom and program assessment, and professional development. Prerequisite: ART 401.

ART 496/596 Seminar on Theory for Visual Artists (3; maximum 6)
Links theoretical contexts influential in educating visual artists to varied thematic structures and practical issues as utilized by visual artists. Prerequisite(s): ART 221.

ART 497 Museums as Interpreters of Culture (3) MPC
Explores the rich texture of forces, disciplines and factors that contribute to the idea of the museum as an interpreter of cultures. Examines the interplay of influences that affect and determine a museum's identity. These influences include the perspectives of curators, collectors and donors; scholars; artists; specific cultural groups; the sociopolitical environment; the art market and diverse audience sectors. Prerequisite: completion of a Thematic Sequence in the arts or humanities or permission of instructor.

ART 498/598 History and Methods in Art and Architectural History (3) MPC
Examines history, varieties, and purposes of art historical methodologies. Acquaints students with significant literature in the history of art and architecture so that they can understand these disciplines and develop their own methodological points of view. Intended as professional training for the major in history of art and architecture. Prerequisite: Senior in the History of Art and Architecture.

ART 606 Graduate Seminar in Art Education (3)
Intensive study of specific problems concerning art education at both elementary and secondary levels. Prerequisite: graduate standing with licensure in art or permission of instructor. Summer only.

ART 607 Independent Reading in Art Education (1-4; maximum 12)
Planned reading in art education as approved by graduate adviser. Prerequisite: graduate standing in art education program.

ART 600 Advanced Research Problems (1-3; maximum 18)
Research in art and art literature. Prerequisite: graduate standing in art.

ART 601 Teaching Assistant Seminar (3)
Includes prevalent issues, concerns, and problems confronting art teacher in college studio setting. For students with little or no experience teaching art; provides insight into teaching. Prerequisite: admission to Department of Art graduate program.

ART 603 Development of Philosophical Foundations in Art Education (3)
Critical evaluation of the development of philosophical trends and theories in art education as they emerged in the U.S. and abroad. Prerequisite: graduate standing in art education program. Summer only.

ART 604 Research in Art Education (3)
Review of research, a research study project, and writing based upon current problems in art education. Prerequisite: graduate standing in art education program.

ART 605 Current Issues in Art Education (3)
Analytic-synthetic survey of current issues in art education with extensive concentration on pertinent literature in the field. Prerequisite: graduate standing in art education program.

ART 620 Graduate Study Drawing (3-6: maximum 18)
Professionally oriented studio drawing problems emphasizing personal interpretation. Prerequisite: graduate standing in art.

ART 630 Graduate Study in Painting (3-6; maximum 48)
Application of advanced techniques and pictorial concepts to problems in painting directed toward individual professional performance. Appropriate research and related studio work. Prerequisite: graduate standing in studio art.

ART 640 Graduate Study in Printmaking (3-6; maximum 48)
Research and related laboratory work in fine print media. Advanced study in intaglio, relief, and planographic media. Prerequisite: graduate standing in studio art.

ART 660 Graduate Study in Ceramics (3-6; maximum 48)
Intensive studio problems in ceramics stressing professional orientation and personal interpretation. Prerequisite: graduate standing in studio art. Materials fee.

ART 664 Graduate Study in Metals (3-6; maximum 48)
Provides qualified graduate student with intensive study in metal craftsmanship as an art form. Prerequisite: graduate standing in studio art.

ART 670 Graduate Study in Sculpture (3-6; maximum 48)
Intensive studio problems in sculpture emphasizing professional orientation and personal interpretation. Prerequisite: graduate standing in studio art.

ART 680 Graduate Seminar in Art History (3; maximum 9)
Special studies in the history of art centered upon a designated topic or area of study which may vary with each offering. Prerequisite: graduate standing in art or permission of instructor.

ART 690 Special Problems (1-3; maximum 18)
Directed studio problems for graduate art student. Prerequisite: graduate standing in art.

ART 700 Thesis (1-12; minimum required: 6 for M.A., 9 for M.F.A.; maximum 18)

ASIAN AND ASIAN AMERICAN STUDIES COURSES (AAA- Arts and Science)

AAA 201 Introduction to Asian/ Asian American Studies (3)
Since the mid-nineteenth century, Americans have viewed Asia as alien, mysterious, alluring, repressed and have alternately been compelled by and frightened by what they have regarded as incommensurable cultural differences between the United States and Asia. In addressing this, we will focus on the following themes: colonialism and nationalism, national and ethnic identities, emigration and immigration, and popular culture and mass media, as a way to put in perspective, if not dispel, prevailing stereotypes of Asian and Asian America and gain a more complex and nuanced understanding of the complex and rich geo-political, cultural and historical terrain of Asia/ Asian America.

This course is designed to provide a general introduction to the related disciplines of Asian Studies, and Asian American Studies and to familiarize students with some of the major debates, points of connection and contention. We will consider how "Asia" and "Asian America" are defined geopolitically and strategically to allow us to develop a critical view about Asian and Asian American studies in a transnational frame. Through an examination of fiction, film and sociological works, students will acquire a better understanding about what is being researched in this field.

AAA 203 Global Religions of India (3)
Explores the major religions of India and their growth outside India. Asks how these religions have contributed to the religious pluralism of America. Also asks how Asian American and non Asian American practitioners of these religions have changed the way that religion in practiced in India and other parts of Asia. Cross-listed with REL. IIB, IIIB, Cul, H.

BACHELOR OF INTEGRATIVE STUDIES COURSES (BIS)

BIS 201 Introduction to Integrative Studies (3)
Introduces integrative learning processes needed to build and focus learning throughout the multidisciplinary BIS program. Students explore their own epistemologies while practicing strategies to meaningfully integrate various disciplines and fields of study, culminating in individualized Statements of Educational Objectives for their course of studies in the degree program. Prerequisite: 45 hours of credit toward graduation.

BIS 301 Integrative Studies Seminar II (3)
Second required seminar in Bachelor of Integrative Studies program, shaped around selected theme. Integrates concepts, perspectives, and methodologies of student Concentrations. Emphasizes critique, analysis, and synthesis of knowledge and ways of knowing and of cross-disciplinary connections. Service learning project extends focus from student self to engaged learner. Prerequisite: BIS 201.

BIS 401 Senior Integrative Seminar (3)
This course brings together BIS seniors in a way that will complete the integrative nature of their course work. It is a true seminar in its intensive, collaborative, and rhetorical nature. The course re-inforces and extends the emphasis on "self," "others," and "product/outcome" characterizing the three BIS seminars. Prerequisites: BIS 201 and BIS 301.

BLACK WORLD STUDIES COURSES (BWS-Arts and Science)

BWS 151 Introduction to Black World Studies (4) MPF, MPT
Introduces the Afrocentric perspective as it has developed in anthropology, history, political science, geography, sociology, religious studies, mass communications, theater, art, etc. Covers theories, research, methodologies, and practice of Africana studies. Students develop historical and contemporary understanding of the African Diaspora. IIC, Cul, H.

BWS 156 Introduction to Africa (4)
A survey course of Africa's varied and complex history and culture. It focuses on African geography, environment, history, economics, politics, as well as its rich cultural heritage. It approaches the study of Africa from a comparative historical and interdisciplinary perspective as well as situates it within the context of global developments.

BWS 204 Brazilian Culture Through Popular Music (3)
Through music, lyrics and rhythms this course raises questions about history, national identity, social, religious, and ethnic diversity in Brazil. Cross-listed with FST/LAS/MUS/POR 204.

BWS 209 Civilization of Africa (3) MPF
Survey of cultural, political, economic, and social developments in sub-Saharan Africa, viewed in geographical and historical perspective with attention to images of the area prevalent in our society. Cross-listed with ATH, GEO, HST, and REL 209. IIC, Cul, H.

BWS 210R Race and Ethnicity (3) MPT
Relies on a variety of primary evidence to study how the Greeks and Romans defined race and ethnicity and how they defined themselves as individual peoples when they confronted cultures and peoples distinctly different from themselves. Examination of the relationship between current theories of race and ethnicity and the theories and practices of the Greeks and Romans. Cross-listed with CLS 210R.

BWS 221 African-American History (3) MPT
Survey of African-American history, concentrating upon the black experience in the United States. Black America from African origins to the 20th century. Cross-listed with HST 221.

BWS 224 Africa to 1884 (3) MPF
Survey course focusing on the changing historiography of Africa, African ancient civilizations, the emergence and development of the Bantu and Nilotes, Eastern Africa and the Orient, early Christianity and Islam, trans-Saharan trade, the medieval Sudanic Empires, statelessness and state formation, Africa and the West between 1400 and 1800, South Africa to 1870, the Mfecane, the Sudanic Jihads, long-distance trade, and African-European relations in the 19th century. Cross-listed with HST 224. IIB, Cul, H.

BWS 225 The Making of Modern Africa (3) MPF
Survey of the transformation of Africa, south of the Sahara, from the time of the scramble for, and partition of, the continent among European powers in the second half of the 19th century to the present. Emphasizes economic, social, cultural, political, and intellectual features. This is done through reading monographs, articles, and literary works (novels, plays, poems, etc.) on African experiences with colonialism, the rise and triumph of nationalism, African womanhood, popular culture and the experiences of change, and the rise and nature of post-colonial economic and political crises in the region. Cross-listed with HST 225. IIB, Cul, H.

BWS 265 Penny Lecture Series (1)
Weekly lectures given by different Black World Studies Affiliates. Credit/No Credit.

BWS 267 National Cinemas: African Film (3)
Explores the cinematography of Black Africa. Topics may vary but the focus will be given to social and ideological implications of African cinema and the way films produce a critique of cultural mores. Cross-listed with FST 267.

BWS 279 African Americans in Sport (3)
Socio-historical analysis of participation of African Americans in sport and society, and examination of the role sport has played in African Americans' integration into the larger society. Investigates the way the image of African Americans has been constructed and maintained through sporting practices. Sociological theories and concepts used to examine the impact of historical events, such as Reconstruction, black migration, and World Wars, on African American involvement in sport and other institutions. Cross-listed with KNH 279. IIC, H.

BWS 292 Dance, Culture, and Contexts (3)
Critically explores relationships among signs, symbols, and images in dance and processes and effects of aesthetic ideology. Through large and small group discussions, video analyses of various dance styles and genres, critical writings and reflections, concert attendances, field observations, and creative movement and analytical experiences, students come to know that a critical analysis of how and what dance means constitutes a particular politics of sociocultural interpretation. Students also come to understand that the various ways in which interpretations are made are socially

constructed and constituted in the attitudes, beliefs, and behaviors we hold and in our definition and treatment of ourselves and others. Cross-listed with KNH 292. IIB, H.

BWS 301 Geography of Sub-Saharan Africa (4) MPT
Analysis of physical and cultural features of that area south of the Sahara Desert. Cross-listed with GEO 301.

BWS 325 Identity, Race, Gender, Class (3) MPT
Develops conceptual tools and critical perspectives that enable students to better understand and analyze the processes through which identities are constructed and experienced. Learning activities facilitate analysis of individual identities as experienced through the life cycle and across diverse cultural and subcultural contexts, and build a systematic understanding of the processes and dynamics through which identities and identity groups develop and interact. Cross-listed with ATH, LAS and WMS 325.

BWS 341 East African History (3)
Examines how the modern states of Kenya, Uganda, Tanzania, Rwanda, and Burundi came into being over the past century and a half, the ways their boundaries have been permeable, and the rise and persistence of the issue of regional integration. Cross-listed with HST 341.

BWS 342 Africa Since 1942 (3)
Addresses events and processes of change that informed sub-Saharan Africa after WWII, the meanings and experiences of decolonization, and the problems of political and economic development after independence. Cross-listed with HST 342.

BWS 343 African-American Religions (4)
An historical survey of the formulation and expression of African-American religions from slavery to the present, including culturally specific forms of Christianity and Islam, as well as reinventions and reinterpretations of African traditions. Prerequisite: REL 101 or BWS 151 or BWS 221 or permission of instructor. Cross-listed with REL 343.

BWS 348 Race and Ethnic Relations (3) MPT
Description and analysis of emergence and trends of minority relations in the U.S. Cross-listed with SOC 348.

BWS 362 Family Poverty (3)
Examines definitions, theories, causes and consequences of family poverty in the U.S. Identifies the extent and degree of U.S. poverty and demographic characteristics of those who are poor or likely to become poor. Consideration given to programs that reduce poverty and/or its negative effects, including those practiced in the past, those now practiced, and those that offer promise for improving the economic and social status of those who are poor. Costs and benefits of welfare and welfare reform and strategies for preventing poverty among future generations also discussed and evaluated. Prerequisite: FSW 295 or SOC 262. Cross-listed with FWS 362.

BWS 365 Civil War and Reconstruction Era (3)
Origins and growth of sectionalism with emphasis on the period after 1850, secession and Civil War, Federal and Confederate governments, Reconstruction, and foreign issues. Cross-listed with HST 365.

BWS 366 African Oral Traditions (3) MPT
Explores interactions between language and culture among African peoples, especially sub-Saharan peoples. Surveys the indigenous languages of Africa, explores African meaning systems, and examines the uses of language in African societies. Cross-listed with ATH 366. Prerequisite: junior or senior status, or permission of instructor.

BWS 370 Selected Topics/Black World Studies (3; maximum 9)
These courses examine specific aspects of the research, theories, roles, status, and experiences associated with blacks in America and throughout the world.

BWS 370E Feminism and the Diaspora: U.S. Women of Color (3) MPC
Concerns issues of language, history, geography, social-psychology, and culture for U.S. women of color (black, Asian-American, Latina, American Indian, and others). Includes works by and about women on gender, ethnicity, class, sexuality, and other differences. Cross-listed with WMS 370E.

BWS 381 African Lusophone Literature (3)
A focus on questions of gender, race, class and stereotypes in the African Lusophone countries. Taught in English. Prerequisite: Any literature course. Cross-listed with ENG/POR/FST 381.

BWS 383 By or About (Afro-) Brazilian Women (3)
Addresses questions about gender, race, class and stereotype of women's bodies in 20th-century Brazil. Cross-listed with POR/ENG/WMS 383.

BWS 386 Race in U.S. Society (3)
Examines the historical contexts within which major transformations in racial practices and policies have taken place and analyzes racialized customs and behaviors in the United States across time and place. Cross-listed with HST 386.

BWS 395 The American South to 1877 (3)
History of culture, society, and politics of the American South from 18th century to the end of reconstruction. Cross-listed with HST 395. Offered infrequently.

BWS 396 The American South Since 1877 (3)
Intensive study of the region since reconstruction. Expansion of cotton culture and industrialization; age of segregation; white and black cultures; modernization; desegregation. Cross-listed with AMS and HST 396. Offered infrequently.

BWS 410A Black Feminist Theory (3)
Examines black feminist theory from a variety of perspectives. Samples diversity of texts by theorists in the U.S. and the African Diaspora. Readings include both well known and lesser known thinkers/scholars as well as classic texts and newly published works. Cross-listed with WMS 410A and ENG 410A.

BWS 415 Cuba in Revolution: Its History, Politics, and Culture (4) MPC
A history of Cuba in the 20th Century with emphasis on Cuban relations with other Latin American countries, the U.S. and Soviet Union. Examines economic, social, political and cultural issues with attention to race, class and gender. Priority given to LAS minors. Cross-listed with LAS and FST.

BWS 427 The American City Since 1940 (3)
Examination of the American city and its physical transformation since 1940. Studies how different experiences of the city are conditioned by issues of class, race, gender, culture. Cross-listed with ARC.

BWS 437 Black Feminist Studies (3)
Examines critical and theoretical issues in black feminism from slavery to the present. One of the central goals of the course is to study constructions of race, gender, class, and sexuality in the context of black women's thoughts and experiences. The class will read, discuss and analyze a wide variety of texts including critical essays, films, selected fiction, print and visual media. Cross-listed with ENG/WMS 437.

BWS 438 Africa in the Global Economy (3)

The interactions of politics and economics in sub-Saharan Africa. Attention to relationships between domestic African economies and the global economy, particularly how these affect patterns of economic and social development, inequality, and political conflict. Exploration of efforts at African political and economic renewal, development efforts to overcome economic, social and political challenges, and the role of international economic institutions. Prerequisite(s): POL 271, 221 and 338 or permission of instructor. Cross-listed with POL 438/538.

BWS 448 The African-American Experience (3)
Concentrates on a socio-historical analysis of the African-American experience. Purpose is to investigate and understand the interaction between race, power, privilege, institutional structures, and ideas associated with this experience in America; provides alternative perspective for viewing this experience. Cross-listed with SOC 448.

BWS 455/555 Race, Urban Change, and Conflict in America (3) MPT
Since the 1960s, changes at both global and local levels have affected the American city. Traditional study of the city has not focused on race and the effect of such changes on race. Conflicts with racial undertones occur on a daily basis in most American cities. More often these are conflicts over production, distribution, and consumption of public and private goods and are manifest in the housing market, job market, and access to education and social services amongst others. This seminar focuses on race in urban America within the context of conflict and change. Cross-listed with GEO 455/555.

BWS 470 Social/Political Activism (3)
Provides students with the opportunity to explore how indigenous groups effect change in their communities. Cross-listed with SOC 470. Prerequisite: SOC 151 or BWS 151.

BWS 472 Race, Ethnicity & Aging (3) MPT
Examines aging among U.S. minority and ethnic groups. Topics include theoretical perspectives, demographics, economics, health, social support, public policy and service delivery systems, and the role of culture in adaptation to aging. Prerequisite: (472) GTY 154; GTY 602 or permission of instructor. Cross-listed with GTY 472/572.

BWS 492 African & American Sexualities (3)
Drawing from post-structural theory, the cultural politics of sexuality within and across Africa and African American cultural formations will be examined. Through various instructional activities, upper level undergraduate students will critique the ways competing discourses on Christianity and Marxism shape the meaning(s) of sexualities of "black" color.

BWS 495 Modern African Environmental History (3)
Offers a multidisciplinary approach to the social, economic, and political aspects of environmental change in sub-Saharan Africa. Explores the utility of social science and historical analyses for understanding long-term changes in the region's environment. Concerned with the way the idea of development has been conceptualized and applied in the region in the last 100 or so years. Considers how Africans perceived and responded to environmental crises in the 20th century. Cross-listed with HST 495/595. Offered infrequently.

BOTANY COURSES (BOT-Arts and Science)

BOT 101 Biotechnology: Coming of Age in the 21st Century (3)
An introduction to biotechnology. The course provides an in-depth examination of new developments in biotechnology. Scientific concepts, applications, and social, ethical, and legal issues are emphasized. IVA.

BOT 102 Introduction to Research in Biology (1)
Designed to meet the following goals: 1) To provide an introduction to research in the general areas of cell, molecular and structural biology (CMSB). (2) To appreciate the overall research theme of signaling mechanisms and cellular responses. (How cells respond to their environment by regulation of gene expression, cellular physiology, cell and tissue morphogenesis, as well as behavior). (3) To convey the significance and relevance of research being conducted in individual research labs. (4) To learn about research based careers in the Biological sciences. Cross-listed with CHM/MBI/ZOO.

BOT 103 Introduction to Research in Biology (Lab Rotations) (2)
Designed to complement the seminar course which provides an introduction to research in the general areas of cell, molecular and structural biology (CMSB). Students will have the opportunity to conduct two 8 week laboratory rotations and become involved in ongoing research projects. Through laboratory experiences, students will become familiar with skills essential for laboratory research, and become aware of routinely used tools and techniques. Cross-listed with CHM/MBI/ZOO. Prerequisite(s): BOT/CHM/MBI/ZOO 102.

BOT 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) MPF, MPT
Integrated study of microbes, plants, and animals, emphasizing biological diversity and interdependence of life and environment. Cross-listed with MBI 115 and ZOO 115. 3 Lec. 1 Lab. IVA, LAB. CASD/ LAB.

BOT 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) MPF, MPT
Biological principles common to microbes, plants, and animals, including interactions between organism and environment. Cross-listed with MBI 116 and ZOO 116. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

BOT 121 Evolution: Just a theory? (3) MPF
An introduction to the principles of evolutionary theory and the nature of science that emphasizes the relevance of evolutionary biology to our lives and society as a whole. IVA.

BOT 131 Plants, Humanity, and Environment (3) MPF, MPT
Introduction to fundamental concepts in plant biology, ecology, and scientific perspective as they relate to issues of social concern. IVA.

BOT 155 Field Botany (3) MPF
Field/laboratory-oriented, interpretive introduction to botany in the regional out-of-doors. Emphasis given to identification, uses, habit, habitat and communities of plants, and fungi in the context of local terrestrial and aquatic environments. 1 Lec. 2 Lab. IVA, LAB. CAS-D/LAB.

BOT 171 Ecology of North America (3) MPF, MPT
Basic principles of ecology, major biomes of North America, and pertinent environmental issues. Biomes range from tundra to tropical rain forest. Environmental issues include biodiversity, deforestation, desertification, and other land management problems, each analyzed from a scientific perspective but involving social, economic, and humanistic factors as well. IVA.

BOT 175 Environmental Science Seminar (1)
Introduces the multidisciplinary nature of environmental science and the solution of environmental problems. Cross-listed with CHM/ENV/GEO/GLG/MBI/MTH/STA/ZOO 175. Offered infrequently.

BOT 181 Medicinal and Therapeutic Plants (3) MPF
Plants have been used as medicines for thousands of years, and continue to be an important source of new cures and therapies for human disease. This course will trace the history of their use, discuss modern debates concerning the use of plants as medicines, and explore examples of medicinal and therapeutic plants. IVA.

BOT 191 Plant Biology (4) MPF, MPT
Consideration of how plant structure, chemical composition, and genetic makeup interact with growth, development, evolution, and metabolic processes of living plants. IVA.

Advanced Botany Courses

Note: Four semester hours of biological science or permission of instructor is minimum prerequisite for all advanced courses.

BOT 203 Introduction to Cell Biology (3) MPT
Introductory study of eukaryotic cell structure and function. Cross-listed with ZOO 203. Prerequisite: BOT/MBI/ZOO 115/116 or BOT 191 ZOO 114.

BOT 203L Plant Cell Biology Laboratory (1)
Laboratory exercises to illustrate the principles of plant cell and molecular biology. Pre-requisite or Co-requisite: BOT 203.

BOT 204 Evolution of Plant Biodiversity: Genes to Biosphere (4) MPT
Along with BOT 203, provides a foundation for botany majors and upper-level course offerings in the department. Covers genetic basis of evolution, heredity and genetic continuity, processes of evolution, and systematic and ecological end-products of evolution with an emphasis on plants, algae, and fungi. Prerequisite: BOT/MBI/ZOO 115 or BOT 191.

BOT 205 Dendrology (4)
Identification and distribution of native and introduced trees, characteristics and use of their woods, and an introduction to forestry practice. 2 Lec. 2 Lab. CAS-D/LAB.

BOT 207 Writing Scientific Proposals (1)
This one credit hour seminar/discussion course will provide the opportunity for students to develop a research proposal and/or develop a manuscript for publication and/or a poster presentation. The overall goal of this course is to help students learn to write effectively in the field of cell, molecular and structural biology. Writing exercises will take the form of assignments that require the student to develop successive sections of the research proposal or other writing project until it is complete. Students will learn to (a) identify the attributes of a well written proposal, paper or poster, (b) search and cite appropriate, relevant literature (c) develop an awareness of plagiarism and ethics in science writing, (d) understand the role of constructive, critical feedback and editing and revising their writing. Cross-listed with CHM/MBI/ZOO 207.

BOT 209 Fundamentals of Ecology (3)
Interrelationships between organisms and their environments. Prerequisite(s): One course in the biological sciences (BOT, MBI or ZOO) or permission of the instructor. Cross-listed with ZOO 209.

BOT 221 Plant Propagation (4)
Provides students with knowledge of the scientific and applied aspects of plant propagation in a closed system including basic plant production, watering, fertilization, crop management, insect and disease control, and problem solving. Prerequisite(s): BOT 131, BOT 171, BOT 191, BOT/MBI/ZOO 115 or BOT/MBI/ZOO 116.

BOT 241 Botanical Principles in Landscape Gardening (3)
Plant materials in relation to home, garden, and landscape uses.

BOT 244 Viticulture and Enology (3)
Botanical description of the grape (Vitis) and the principles of viticulture (grape growing) and enology (wine making). Various horticultural techniques used throughout the world in these disciplines. Tastings and lab fee. Prerequisite: BOT/MBI/ZOO 115, 116 or BOT 191 or permission of instructor.

BOT 255 Introduction to Biotechnology (3)
Examination of modern biotechnology and issues emerging from this technology. Emphasis on plant biotechnology and practical application of plants or their components in industry, agriculture, medicine, and the environment. Basic principles of molecular biology and recombinant DNA technology introduced. Offered infrequently.

BOT 275 Principles of Environmental Science (3)
Introduction to the principles and methodologies of environmental science. Topics include contamination of earth systems and pollution mitigation; use, abuse and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. This course does not meet any CAS requirements. Cross-listed with CHM/ENV/GEO/GLG/MBI/MTH/STA/ZOO 275. Pre-or-co-requisite: 1) BOT/MBI/ZOO 115 or BOT 191 or ZOO 113 2) CHM 11 or CHM 142/5 and 3 and 3) GLG 111 or 121 or 141 or GEO 121.

BOT 290 Introduction to Botanical Investigation and Scholarship (1)
Overview of botanical research areas, career alternatives, and the process of scientific investigation designed to serve as a base for undergraduate and post-baccalaureate life.

BOT 302 Plant Taxonomy (4)
Identification of flowering plants in field and laboratory, including local flora and majors critical plant families. Additional topics include nomenclature, history of taxonomy, methods of systematics, phylogeny of plants.

BOT 306 Basic Horticulture (3)
Principal factors involved in the production of vegetables and fruits. Senior standing recommended.

BOT 312 Plant and Fungal Diversity (4) MPT
Overview of plant and fungal diversity considering all major groups of non-animal eukaryotes. Although primarily a survey of structural and biochemical characteristics that define each group, the course also examines evolutionary themes among these organisms with particular emphasis on land plant evolution and the polyphyletic nature of the algae and fungi. Prerequisite(s): A course in biological science.

BOT 331 Economic Botany (3)
Significance of plants in human affairs, useful plants and plant products, and essential aspects of their production and use. Offered infrequently.

BOT 333 Field Ecology (2)
Experience in collection, analysis, and interpretation of ecological data. Prerequisite: BOT/ZOO 209. Cross-listed with MBI/ZOO.

BOT 340 Internship (1-16)
Internship program to supplement basic requirements for a botany major or minor by providing credit for practical work experience. Only four hours may count toward botany degree. Minimum prerequisite: 30 credit hours with 7 in botany and 2.50 g.p.a. See chair or chief departmental adviser.

BOT 342 Genetics (3) MPT
Introduction to basic principles of heredity and some of their biological applications. Prerequisite: One year of chemistry and BOT/MBI/ZOO 115/116. Cross-listed with ZOO 342.

BOT 351 Environmental Education: Focus on Natural History (4)
Introduction to the field of environmental education emphasizing the natural history and interpretation of natural habitats of southwestern Ohio. Cross-listed with ZOO 351. Prerequisite: BOT/MBI/ZOO 115. 2 Lec. 2 Lab. Offered infrequently.

BOT 400 Independent Research (1-5; maximum 10)

BOT 401/501 Plant Ecology (3) MPT
Studies of plant communities, populations, and individuals in relation to their environment. Laboratory option available as BOT 333, 434, 437. Prerequisite(s): One of the following: BOT/MBI/ZOO 115, BOT 131, BOT 171 or ZOO 204, or by permission of instructor. Offered infrequently.

BOT 402/502 Plant Anatomy (3) MPT
Study of structural characteristics of plant cells organized into functional tissue groups within organs comprising plant bodies. Emphasis placed on identification of plant cell types using histochemistry and light microscopy, how various combinations of cell types form functional vegetative tissues, and how these functional tissues are organized within leaves, stems, and roots to form integrated plant bodies that are able to survive in diverse environments. (2 Lec. 1 Lab) Prerequisite: BOT 203 or permission of instructor. Offered odd year spring semesters.

BOT 403/503 Plant Development (3)
Study of growth and development of plants. Emphasis placed on methods of study and analytic models and genetic analysis of the growth and development of plant embryos, roots, stems, leaves and reproductive organs. Prerequisite: BOT 402 and 425, or permission of instructor. Offered odd year fall semesters.

BOT 409/509 Morphology of Vascular Plants (4)
Structure, reproduction, life histories, and possible evolutionary relationships of vascular plants with special attention given to Angiosperms. Prerequisite: BOT 312 or permission of instructor. 3 Lec. 1 Lab. Offered infrequently on basis of demand.

BOT 415/515 Techniques in Plant Biotechnology (3)
A laboratory/discussion-based course that introduces plant tissue culture, protoplast technology, DNA isolation, PCR, gene cloning, DNA sequencing, and other methods that are important to biotechnology. Discussions include the significance and application of methods, issues relevant to genetically modified organisms (GMOs), and new developments in the field of biotechnology. Prerequisite(s): a course in genetics, cell biology, biotechnology, or equivalent.

BOT 421/521 Advanced Mycology (3)
Analysis of contemporary issues in mycological research. Class centers on laboratory project or field research. Prerequisite: BOT 203, 312, or permission of instructor. 2 Lec. 1 Lab. Offered infrequently on basis of demand.

BOT 424/524 Biological Instrumentation (4)
Theory and application of modern biological instrumentation and techniques. Basic and advanced skills including use, maintenance and calibration of biological instruments. Prerequisites: BOT/MBI/ZOO 115 or BOT/MBI/ZOO 116 or BOT 191 or MBI 201 or MBI 202 or ZOO 113 or ZOO 114 or equivalent, CHM 141 and CHM 142 or equivalent, or permission of instructor. Cross-listed with MBI/CHM/ZOO. Offered fall semester of even years.

BOT 425/525 Environmental Plant Physiology (4) MPT
Examines the structure and function of plants from the cellular to the whole plant level focusing on plant-environment interactions. Prerequisite(s): A course in biological science.

BOT 431/531 Global Plant Diversity (3) MPT
Research-focused seminar on floristic, ecological, and cultural influences on global patterns of plant diversity, especially in tropical regions. Comparative topics include the role of disturbances and global environmental change. Prerequisite: BOT/MBI/ZOO 115, BOT 191, or higher, GEO 121 or higher, or permission of instructor. Cross-listed with GEO. CAS-D.

BOT 432/532 Ecoregions of North America (3) MPT
Ecological study of vegetation that applies an understanding of climate, soils, and physiography across the continent toward interpreting major vegetation types and local patterns of diversity. Discussions and fieldwork focus on current research and conservation issues. Required field trip. Prerequisite: BOT/MBI/ZOO 115, BOT 191, or higher; GEO 121 or higher; or permission of instructor. Cross-listed with GEO. CAS-D.

BOT 434/534 Plant Ecology Methods - Community Analysis (1)
Introduces methods of collecting, analyzing, and interpreting ecological data on plant communities. Offered infrequently.

BOT 437/537 Field Methods in Population Ecology (1)
A course designed to introduce field and lab methods used to sample plant and animal populations and quantify interspecific competition. Prerequisite: a course in ecology. Cross-listed with ZOO. Offered infrequently.

BOT 466/566 Bioinformatics Computing Skills: Programming in Perl and MatLab (3)
Use of BLAST, BioPerl, BioPHP, and MatLab Bioinformatics Toolbox. Emphasis placed on biological database design, implementation, management, and analysis. Prerequisite(s): Programming course and BOT 116, or BOT 342, or permission of instructor. Cross-listed with CSE/MBI/ZOO 466/566.

BOT 467/567 Conservation Biology (3) MPC
Principles of ecology and organismal biology applicable to conservation of uncommon plant and animal populations or ecosystems in relation to anthropogenic threats and relevant legislation. Prerequisites: an introductory course in biology and ZOO 209 or BOT 401 or equivalent. Cross-listed with ZOO 467/567.

BOT 470/570 Advanced Botany Field Trip (1-8; maximum 8)
Field trips for advanced botany students. Prerequisite and credit vary each time course offered. Continuing prerequisite: permission of instructor. Offered infrequently.

BOT 480 Departmental Honors (1-6; maximum 6)
Departmental honors may be taken for minimum of 4 credit hours and maximum of 6 credit hours, in one or more semesters of student's senior year.

BOT 481/581 Theory of Electron Microscopy (2)
Principles and theory of scanning and transmission electron microscopy and advanced microscopies. Cross-listed with ZOO. Offered every fall semester.

BOT 482/582 Scanning Electron Microscopy Laboratory (2)
Practical course providing training in scanning electron microscopy (SEM). Sample preparation, SEM operation, darkroom work, manuscript preparation, and an individual research project. Cross-listed with ZOO. Prerequisite or co-requisite: BOT/ZOO 481/581 and permission of instructor. Offered every fall semester.

BOT 483/583 Transmission Electron Microscopy Laboratory (2)
Practical course in transmission electron microscopy: specimen preparation microscope usage, data collection, and photographic plate preparation. Prerequisite or co-requisite: BOT/ZOO 481/581 and permission of instructor. Cross-listed with ZOO. Offered every spring semester.

BOT 485/585 Bioinformatic Principles (3)
Introduces the fundamental concepts and basic computational techniques for several mainstream bioinformatics problems. Emphasis placed on applications of bioinformatics tools as well as how to transform a biological problem into a computable one. Highlights computer usage, so demonstration of computer expertise is required, but programming experience is not. Prerequisite(s): Any one of these courses: BOT/MBI/ZOO 116, MBI 201, BOT/ZOO 342, CHM 332, CHM 433; or permission of instructor. Cross-listed with MBI/ZOO 485/585.

BOT 490A Current Advances and Issues in Botany Capstone (3 total: 490.A (1) with corequisite 477 (2) Directed Study with faculty member in 490.A) MPC
Advances in botanical research and how botany impacts issues of importance to society. Building on Miami Plan and major course work, students evaluate selected issues and scientific advances. Written and oral exercises to enhance critical thinking and communication skills and explore the breadth of career options in botany.

BOT 490B Research, Internship in Botany Capstone (3 total: 490.B (1) with co-requisite 400 (2) Independent Research) MPC
Students interested in graduate or professional school typically enroll for directed study/research credit to complete research projects with faculty mentors. Students interested in botany-related career choices immediately upon graduation may elect internship experience. BOT 490.B, a seminar course that meets weekly, along with enrollment in appropriate co-requisite for two semester hours complete the three-hour Capstone requirement.

BOT 490C Departmental Honors in Botany Capstone (3 total: 490C (1) with corequisite 480 (2) Departmental Honors) MPC
Gifted students can pursue a departmental honors project with a faculty mentor. BOT 490C, a seminar course that meets weekly, along with enrollment in departmental honors course for two semester hours complete the three-hour Capstone requirement.

BOT 490D Undergraduate Botany Teaching Capstone (490D (1) with corequisite 477 (2) Directed Study with faculty member in 490C) MPC
Many botany undergraduates ultimately teach. Combines a weekly seminar class with a practicum in which students serve as teaching assistants in regularly scheduled Foundation course laboratories with the supervision of a graduate teaching assistant and faculty member. The goal is to combine training in pedagogy with practical experience, improving the student's knowledge, critical thinking, and teaching skills in the botanical laboratory classroom. One formal class meeting per week plus three contact hours per week of practicum and additional course preparation meetings.

BOT 494 Sustainability Perspectives in Resources and Business (3) MPC
Addresses the need for interdisciplinary understanding of the pattern of declining quantities of critical resources and growing public awareness of environmental degradation, an understanding of relevant ecosystems, social and economic institutions and policy, and the prospects for the business community to facilitate resolution of these concerns. Three alternative prerequisites: (A) senior standing as a business major and one of BOT 131 or GLG 121 or ZOO 121; or (B) senior standing as a science major and ECO 201 and 202; or (C) senior standing and completion of Thematic Sequence ECO 5 Sustainable Systems. Cross-listed with BUS, GEO, GLG, and ZOO 494. Offered infrequently.

BOT 495/595 The Natural History of Nova Scotia and New Foundland (5)
This workshop explores the geology, ecology, botany, and zoology (ornithology and whale biology) of the deciduous Acadian Forest, Boreal Coniferous Forest, Hyperboreal zone, and Maritime Regions of two Maritime Provinces using a comparative approach through lecture and field experiences. Prerequisite(s): Introductory biology and six additional hours of biological science courses and/or permission of the instructor. Offered infrequently.

BOT 600 Directed Study and Research (1-5; maximum 10)
Open to senior majors.

BOT 605 Advanced Molecular Biology (3)
In-depth study of genome organization, rearrangement, replication, and expression in prokaryotic and eukaryotic cells and their viruses, with an emphasis on regulatory mechanisms. Prerequisite: graduate status, a course in molecular genetics, biochemistry, or cell biology, and permission of instructor. Cross-listed with MBI/ZOO. Offered odd year fall semesters.

BOT 606 Advanced Cell Biology (3)
Advanced level study of molecular basis of prokaryotic and eukaryotic cell structure/function relationships. Prerequisite: graduate status, course in molecular genetics, cell biology, or biochemistry, and permission of instructor. Cross-listed with MBI/ZOO. Offered even year fall semesters.

BOT 621 Advanced Plant Taxonomy (3)
Principles of classification with emphasis on modern approaches to study of evolution and relationships of flowering plants. Laboratory study considers major families of flowering plants and their phylogenetic position. Prerequisite: three advanced courses in biological science including course in taxonomy or permission of instructor. 2 Lec. 1 Lab. Offered even years spring semesters.

BOT 630 Topics in Botany for Teachers (4)
Under this number several topics of special interest to teachers may be presented. Examples include dendrology, plant structure and function, survey of plants, plant tissue culture, plant biology, plant ecology, and others. Available only to students in MAT biological sciences program. Prerequisite: BOT/MBI/ZOO 115 and 116 or BOT 191 or equivalent. Offered infrequently.

BOT 650 Seminar in Molecular Biology (1)
Discussion of current literature in molecular biology. Prerequisite: graduate standing. Cross-listed with CHM/MBI/ZOO. Offered every semester.

BOT 660 Graduate Colloquium (1; maximum 4)
Professional development for graduate students.

BOT 665 Plant Biosystematics (3)
Examination of species concepts and factors affecting formation of species including isolating mechanisms, hybridization, polyploidy, and apomixis. Traditional and molecular lines of evidence and phylogenic analyses emphasized. Prerequisite: three advanced courses in Biological Science including BOT 302 or equivalent. Offered infrequently.

BOT 671 Population and Community Ecology (4)
Principles and applications of population and community ecology: population dynamics, direct and indirect species interactions, food webs, species diversity. Prerequisites: at least one course in general ecology; calculus recommended. Cross-listed with MBI/ZOO. Offered every fall semester.

BOT 672 Ecosystem and Global Ecology (4)
Structure, dynamics and management of ecosystems and the biosphere, including food web interactions, nutrient cycling, ecosystem functioning, and biogeochemical cycles at local, regional and global scales. Prerequisites: at least one course in general ecology and general chemistry. Cross-listed with MBI/ZOO. Offered every spring semester.

BOT 688 Biological Science Education (3)
Designed to develop the knowledge, skills, and confidence to be an effective biology teacher at the college level. Students will be introduced to modern teaching techniques, peer evaluation as a means of teacher development, and reflective practice. Each student will develop a teaching philosophy statement as part of the course. Cross-listed with MBI. Prerequisite(s): Graduate status in a biology department or permission of instructor.

BOT 691 Costa Rica: Neotropical Ecology (7)
Students join a summer field course in Costa Rica to explore Neotropical systems, including lowland rain forest and cloud forest; engage in inquiry and action projects on vital issues in education and conservation; work through fall semester on a collaborative Web platform. Prerequisite(s): Students must serve as an informal or formal educator, hold a bachelor's degree, have internet access and email, and be 18 years of age or older. Students also must apply and be accepted to the program at www.EarthExpeditions.org.

BOT 693 Trinidad: Environmental Education (7)
Students join a summer field course in Trinidad to explore conservation biology and community-based education; engage in inquiry and action projects on vital issues in education and conservation; work through fall semester on a collaborative Web platform. Cross-listed with IES/GLG/ZOO. Prerequisite(s): Students must serve as an informal or formal educator, hold a bachelor's degree, have internet access and email, and be 18 years of age or older. Students also must apply and be accepted to the program at www.EarthExpeditions.org.

BOT 694 Habitats, Adaptations, & Evolution: Earth Expeditions (3)
Students will complete a semester-long research project to explore habitats, evolutionary theory and adaptation; create research questions which can also cover individual classroom goals or district goals or state or national standards. Cross-listed with IES/GLG/ZOO. Prerequisite(s): Students must serve as an informal or formal educator, hold a bachelor's degree, have internet access and email, and be 18 years of age or older. Students also must apply and be accepted to the program at www.EarthExpeditions.org.

BOT 695 Plants & People: Earth Expeditions (3)
Students will complete a semester-long research project to explore emerging, vital conversation about the role of nature in human development and learning, with a particular focus on plants and their use in education; generate knowledge and illuminate the relationship between plants and people. Cross-listed with IES/GLG/ZOO 695. Prerequisite(s): Students must serve as an informal or formal educator, hold a bachelor's degree, have internet access and email, and be 18 years of age or older. Students also must apply and be accepted to the program at www.EarthExpeditions.org.

BOT 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

BOT 720 Graduate Seminar (1-2; maximum 8)
Topics for advanced study in selected fields of plant science:
Prerequisite: graduate standing in biological science.
720A Cellular/Structural (1-2)
720B Molecular/Physiological (1-2)
720C Systematic/Ecological (1-2)
720D Applied Skills (1-2)

BOT 750 Advanced Topics in Botany (1-5; maximum 20)
Study of specialized topics from current research in the following areas:
750A Anatomy
750B Bioinformatics
750C Biological Science Education
750D Development
750E Ecology
750F Evolution
750G Molecular Biology
750H Morphology
750I Mycology
750J Physiology
750K Systematics
750L Ultrastructure

BOT 790 Research in Botany (1-8; maximum 12)

BOT 850 Research for Doctoral Dissertation (0-15)

BUSINESS ANALYSIS COURSES (BUS-Business)

BUS 101 Foundations of Business Decision Making (3)
Introduces students to a framework for understanding ethical issues in business that includes multiple stakeholders of the firm; explores fundamental business processes required for business transactions; global, environmental, legal and inclusive perspectives are addressed. Prerequisite(s): Concurrent registration in BUS 102, Pre-Business standing.

BUS 102 Writing for Business Decision Making (1)
Introduces students to the fundamentals of business writing. Designed to introduce key business writing forms and skills within the context of the stakeholder framework. Prerequisite: Concurrent registration in BUS 101, Pre-business standing.

BUS 131 China Business Seminar I (1)
Introduces students to the fundamentals of business writing. Designed to introduce key business writing forms and skills within the context of the stakeholder framework. Prerequisite: Concurrent registration in BUS 101, Pre-business standing.

BUS 231 China Business Seminar II (1)
Focuses on the business, economic, political, and legal environments in China and how they influence companies doing business in China. Will prepare students for their China-related internships and study abroad experiences. Prerequisites: BUS 131 and enrollment in the China Business Program.

BUS 235 Mock Trial Practicum (1; maximum 6)
Practical experience in intercollegiate mock trial competition; requires travel to intercollegiate mock trial tournaments; may not be counted for credit toward any major in the School of Business. Course may be repeated for up to six hours. Permission of instructor is required.

BUS 301 Macro Concepts in Contemporary Business (3) MPT
An introduction to the macro nature of the business environment. It is designed for students without academic preparation in business and who have majors outside the School of Business. Topics include the business environment, the history of commerce, corporate governance, business and public policy. Business processes including finance, accounting, operations, and supply chain management are also identified and placed in context. Two mandatory half day field trips are also included in this course which provide context for BUS 301, 302 and 303. Prerequisite: Enrollment in the Summer Business Institute and co-registration with BUS 302 and BUS 303.

BUS 302 Micro Concepts in Contemporary Business (3) MPT
An introduction to issues related to business processes and their integration at the individual firm level. This course takes the perspective of the individual within a firm. It is designed for students without academic preparation in business who have majors outside the School of Business. Topics include ground level views of the various functional areas of a business such as marketing, finance, operations, human resources, and information systems. It exposes students to these areas in the context of the various processes a business must execute in order to add value to the customer. Prerequisite: Enrollment in the Summer Business Institute and co-registration with BUS 301 and BUS 303.

BUS 303 Business Process Integration (3) MPT
A project based course where material introduced in BUS 301 and BUS 302 is supplemented with additional material on the strategic planning and supply chain management processes. The course integrates student understanding of business processes through a multidisciplinary and crossfunctional team project. This project is coached by a group of instructors from a variety of academic areas. The project simulates the development of a new product within an existing business. This course is designed for students without academic preparation in business who have majors outside the School of Business. Prerequisite: Enrollment in the Summer Business Institute and co-registration with BUS 301 and BUS 302.

BUS 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/DSC/ECO/ESP/FIN/MGT/MIS/MKT 330.

BUS 351 Business in Context: Government and the Law (2)
Examines issues related to the legal and political environment within which businesses operate. Topics may include: overview of the US court system; constitutional law; tort law; criminal law; property law: real, personal, intellectual; agency law; contract law; regulatory environment and stakeholder theory; admin law; employment law; consumer protection; international business law. Prerequisites: ACC,221, ACC 222; BUS 101, BUS 102; DSC 205; ECO 201, ECO 202; MIS 235; MTH 151 or 153 or 249 or 251. Concurrent courses: BUS 352, BUS 353 and BUS 354.

BUS 352 Business in Context: Inside the Enterprise - Investing in Human Capital (2)
Investigates the structure of the business organization and the role of human resources within the organization. Topics may include: the strategic importance of attracting, developing, and retaining human capital; managing ethics within an organization; staffing and developing a diverse workforce; the impact of job design on workplace productivity & employee attitudes; the use of motivation and rewards in improving employee performance; developing high performance work teams; factors that contribute to effective leadership; the impact of organizational design, structure, and corporate culture on behavior within organizations. Prerequisites: ACC,221, ACC 222; BUS 101, BUS 102; DSC 205; ECO 201, ECO 202; MIS 235; MTH 151 or 153 or 249 or 251. Concurrent courses: BUS 351, BUS 353 and BUS 354.

BUS 353 Business in Context: Beyond the Enterprise (3)
Explores issues related to the strategic management of the disparate relationships associated with the creation and marketing functions of firms. Topics may include - segmentation and targeting; buyer behavior; global marketing; marketing research and intelligence; industry structure and competition; technological environment; product; price; distribution and supply chain; promotion and branding; sales; supply chain & operations strategy; manufacturing & service processes; quality; lean manufacturing; forecasting; inventory management; integration of operations, sourcing & logistics. Prerequisites: ACC,221, ACC 222; BUS 101, BUS 102; DSC 205; ECO 201, ECO 202; MIS 235; MTH 151 or 153 or 249 or 251. Concurrent courses: BUS 351, BUS 352 and BUS 354.

BUS 354 Business in Context: The Role and Importance of Financial Capital (2)
Develops an understanding of a monetary economy and the role and importance of financial management within firms. Topics may include an introduction to money; interest rate determination; the term structure of interest rates; an overview of financial institutions; an introduction to central banking and monetary policy; an overview of basic financial markets and instruments (Debt v. Equity); financial statement analysis and planning; interest rates; time value mechanics and applications; bond and stock valuation; risk and return (expected returns, std. dev., beta, diversification); cost of capital and capital structure; capital budgeting – calculation of cash Flows; capital budgeting techniques (NPV, IRR, etc.) Prerequisites: ACC,221, ACC 222; BUS 101, BUS 102; DSC 205; ECO 201, ECO 202; MIS 235; MTH 151 or 153 or 249 or 251. Concurrent courses: BUS 351, BUS 352 and BUS 353.

BUS 371 International Business (3)
Acquaints students with problems encountered and adaptations required in business operations within foreign environments. Prerequisites: ECO 201 and ECO 202.

BUS 371L International Business (4)
Acquaints students with basic concepts and analysis of environmental factors in which international businesses operate, strategic alternatives and applications, case studies, and country analyses. Offered on Luxembourg campus. Credit for graduation will not be awarded for more than one of BUS 371 or BUS 371.L. Prerequisite ECO 201 and ECO 202.

BUS 373 International Business in Focus (3)
Survey of the interrelationships of world business operations; an introduction to current conceptual perspectives; cultural, political/legal and economic constraints, the international financial and trade frameworks, and the problems, challenges, and opportunities facing the multinational corporation in a particular country or region of the world. Prerequisite: Enrollment in School of Business summer international workshop.

BUS 420 FSB International Studies Programs (2; maximum 2)
The class provides an introduction to the history, culture, geography, business environment, economy, and language of the places FSB students will travel during their summer international experience. Portions of the class are in Oxford prior to departure, and portions are held in the country of the program. Prerequisite(s): Admission to FSB International Studies Program. Credit/No credit only.

BUS 450C Senior Honors Colloquium (1)
The Senior Business Honors Colloquium will focus on current issues and topics in business. Students will be expected to conduct original research and present findings to the class, as well as actively engage in others' presentations. Prerequisite: senior standing in the business honors program.

BUS 494/594 Sustainability Perspectives in Resources and Business (3) MPC
Addresses the need for interdisciplinary understanding of the pattern of declining quantities of critical resources and growing public awareness of environmental degradation, an understanding of relevant ecosystems, social and economic institutions and policy, and the prospects for the business community to facilitate resolution of these concerns. Three alternative prerequisites: (A) senior standing as a business major and one of BOT 131 or GLG 121 or ZOO 121; or (B) senior standing as a science major and ECO 201 and 202; or (C) senior standing and completion of Thematic Sequence ECO 5 Sustainable Systems. Cross-listed with BOT/GEO/GLG/ZOO.

BUS 601 MBA Strategy Module (1)
Introduces the MBA student to concepts, theory, and decisions associated with business strategy. Examines the role and importance of cross-functional integration as it relates to business strategy and competitive success.

BUS 605 MBA Business Skills Seminar (1)
Introduces the MBA student to a variety of skills necessary for the successful completion of the full-time MBA program and the extended internships that are a part of that program.

BUS 621 New Product & Service Design (2)
Explores the process of new product and new service design. Coverage of approaches to infuse innovative thinking into organizations, structure new product/service initiatives, evaluate alternative initiatives, and then launch them successfully.

BUS 622 Customer Acquisition (2)
Introduces students to the basic concepts involved with the customer acquisition process. The topics covered: market segmentation, pricing and profitability analysis, product and service promotion, and customer relationship management.

BUS 623 Internal Process Integration (2)
Introduces students to internal business processes that span functional boundaries. The focus is on the four dominant processes of financial planning, resource planning systems, the cash-to-cash cycle, and after-sale processes.

BUS 624 Process Design & Improvement (2)
Examines the technical and human aspects of process design and improvement. Included are process design and improvement frameworks and techniques and how those approaches can be integrated with change management.

BUS 625 Graduate Business Seminar I (1-2; maximum 4)
A Graduate Seminar in selected business topics. Contemporary theories, research, and application in integrative business topics. Examines topical issues related to content in other courses to extend the curriculum into such areas as business ethics, legal issues, and specific decision-making techniques.

BUS 626 Graduate Business Seminar II (2)
Spring seminar for full-time MBA students, designed to expose students to critical discussion of integrative topics such as business ethics, legal issues, and problem solving in parallel with topical coverage in other courses. The seminar also provides an opportunity for students to share challenges and problems they encounter in the field study experience.

BUS 629 Graduate Business Field Study (1-4; maximum 6)
Designed to provide the full-time MBA student experience in applying and researching actual business theory and skills. Students are assigned to 2-3 person teams and given a business project to complete for an area business (Fall/Spring Semesters) or an International Company for the Global Consultancy project.

BUS 633 External Process Integration (2)
Introduces students to processes that span business boundaries and result in business-to-business relationships. Included are supply chain management, inbound and outbound logistics configuration outsourcing, supplier performance metrics, and customer relationship management.

BUS 637 Managing Competition (3)
The examination of competitive forces in the marketplace and how they can be managed to deliver winning business outcomes. This course will leverage previous MBA course work to take a holistic view of the various strategic drivers, both internal and external to a firm.

BUS 638 Global Markets (2)
Introduces MBA students to the basic concepts involved with global markets. Global markets provide coverage of such macro issues as transitioned vs. transitional economics, regional/global interdependencies and political risk, and financial implications are covered.

BUS 639 Change, Leadership and Culture (2)
Uses both conceptual and quantitative analysis to interpret challenges of leadership, change management, and cross cultural integration. This course will integrate change strategies with leader practices that are most likely to capitalize on cultural strengths.

BUSINESS LEGAL STUDIES COURSES (BLS-Business; Department of Finance)

BLS 235 Mock Trial Practicum (1; 6 maximum)
Practical experience in intercollegiate mock trial competition; requires travel to intercollegiate mock trial tournaments; may not be counted for credit toward any major in the School of Business. Course may be repeated for up to six hours. Prerequisite: one year of collegiate mock trial experience and/or permission of instructor; only members of mock trial team may enroll.

BLS 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BUS/DSC/ECO/ESP/FIN/MGT/MIS/MKT 330.

BLS 342 Legal Environment of Business (3) MPT
Nature and sources of law; legal analysis and reasoning; judicial system, litigation and alternative dispute resolution; constitutional and administrative law; criminal law; law of torts and products liability; ethics; international business law; law of contracts; law of agency; employment law; and government regulation of business.

BLS 437 Cyberlaw (3) MPT
Designed and intended to introduce the student to the legal issues surrounding e-commerce. Will develop awareness as to how the internet functions; the legal restrictions and limitations placed upon providers of internet service and those who do business on the internet; also explores issues raised in the area of intellectual property. Prerequisite(s): BLS 342.

BLS 442 Business Associations & Communal Law (3) MPT
Study of the legal framework of various organizational forms in business; partnership; corporations; securities regulation and the study of the law of sales; commercial paper; secured transactions and bankruptcy. Prerequisite(s): BLS 342.

BLS 443 Property Law (3)
Principles of real and personal property law; estates in land, instruments of conveyance, mortgages and leases; personal property topics include bailments, intellectual property, and computer law. Offered infrequently. Prerequisite: BLS 342.

BLS 462/562 Estates, Wills & Trusts (3) MPT
Legal, financial, and practical considerations in creation, management, and conservation of an estate. Trust principles and practices; and federal estate and gift rules and planning techniques. Offered infrequently. Prerequisite: BLS 342.

BLS 464 International Business Law (3) MPT
Provides framework for understanding international business and legal environment within which it operates. Study traditional commercial law topics, such as rights and obligations of buyer and seller under contract for international sale of goods. Study of private law of international business transactions and public law of international trade. Prerequisite: BLS 342.

BLS 465 Ethics, Law, & Business (3) MPC
Explores legal aspects of business decision-making from an ethical perspective. Focuses on the business manager as an ethical decision-maker and on the corporation as a social moral agent. Conducted in seminar style using cross-functional cases from the core business disciplines. Prerequisite: Farmer Business School core courses and senior standing or permission of instructor. This course may not be used as a finance major elective.

BUSINESS TECHNOLOGY COURSES (BTE-Business)

Note: As applicable to your particular business program, a limited number of business technology courses may apply toward the four-year Bachelor of Science in Business programs. Please consult your business technology adviser.

BTE 101 Introduction to Accounting I (3)
Introduction to double-entry accounting systems, journals, subsidiary ledgers, and the general ledger. Preparation of financial statements for service and merchandising concerns emphasized. Basic payroll procedures, cash account reconciliation, and completion of detailed practice set.

BTE 102 Introduction to Accounting II (3)
Continuation of BTE 101 with more in-depth coverage of asset, liability, and equity concepts. Includes inventory valuation methods, fixed asset accounting, notes, statement of cash flows, analyzing and interpreting financial statements. Communication of accounting information through writing skills. Prerequisite: BTE 101.

BTE 103 Introduction to Finance (3)
Survey of the field of finance including sources of financing; financial markets; short, intermediate, and long term financing; and financial management techniques and practices. Prerequisite: BTE 101, 106, or permission of instructor.

BTE 105 Introduction to Marketing (3)
General survey of the field of marketing including the marketing concept, management of the marketing-mix, analysis of the marketing environment, use of marketing information, understanding of buyer behavior, and selection of target markets.

BTE 106 Introduction to Business and the Economy (3)
Introduction to various functional areas of business and everyday business and economic principles and problems including consumer choice, supply and demand, money, banking system, investment, growth, inflation, government policy, taxes, and employment.

BTE 108 Introduction to Business Law (3)
Survey of business law including the legal system and environment in which business operates. Problems and solutions are investigated in areas of contracts, sales, bailments, commercial paper, agency and employment, partnerships and corporations, risk bearing devices, and property.

BTE 109 Quantitative Business Methods - An Introduction (3)
Survey of the gathering, analysis, and presentation of business data. Data summarization, graphs, index numbers, time series, probability and statistics. Emphasis on the use of these methods as tools for solving typical business problems. This course is intended to help you with other courses and should be taken early in your program. Prerequisite: MTH 101, BTE 181.

BTE 111 Introduction to Management I (3)
Introduction to principles and practices of managing organizations. Exposure to contemporary management issues, functions of management, and the interrelationship between business organizations and the environment. Emphasis on development of supervisory skills.

BTE 112 Introduction to Human Resources Management (3)
Emphasis on personnel function, management-worker relations, union and government regulation of the work place. Prerequisite: BTE 111 or permission of instructor.

BTE 113 Management & Supervisory Skills (3)
Skill training for employees, supervisors and managers. This course analyzes individual behavior, team dynamics and organizational performance. Topics include: learning styles, motivation, assertiveness, situational supervisory, time and conflict management. Interpersonal skills are emphasized.

BTE 114 Business Presentation Competence (3)
Competence training for employees, supervisors and managers. Topics include: negotiations, participating in meetings, delivering impressive business reports and presentations, and fitting into an

organizational culture. Oral, written and non-verbal communication skills are emphasized. Offered infrequently.

BTE 121 Keyboarding (1-3; maximum 3)
Divided into three five-week modules according to individual's need, ranging from learning the keyboard to formatting letters, tables, and documents. Summer only.

BTE 121N Keyboarding- Numeric Keypad (1)
Student works independently to learn the numeric keypad by touch; develops speed and accuracy to apply this to a variety of data entry operations.

BTE 125 Medical Office Simulation (3)
Specialized simulation package for the student preparing for a position in the field of medical office administration. Emphasizes methods and procedures encountered when processing medical documents.

BTE 181 Computers and Business (3)
Hands-on course emphasizing role of computers in business, business information systems, and use of business software. Develop skill in using word processing, business graphics, electronic spreadsheets, database, and the Internet. Software utilized is regularly updated. Windows and Microsoft Office Professional currently used. Credit not given for both BTE 181 and CIT 154.

BTE 201 Federal Income Tax Procedures I (3)
Detailed coverage of federal income tax rules, regulations, and procedures. Preparation of federal income tax returns for individuals. Introduction to corporate tax. Includes a computerized tax program. Ethics component included. Prerequisite: BTE 101 and 181.

BTE 202 Payroll Records and Accounting (3)
Methods of computing wages and salaries, maintaining payroll records and preparing government reports and transmittal forms for federal, state and local payroll taxes. Computerized practice set included. Prerequisite: BTE 101 and 181.

BTE 203 Computerized Accounting (3)
Fundamentals of computerized accounting systems, including receivable, payable, payroll, inventory, and general ledger modules for a service or merchandising concerns. Conversion from a manual accounting system to an automated system. Course is exclusively hands-on with extensive use of practice sets and exercises. Prerequisite: BTE 101 and 181.

BTE 204 Cost Accounting (3)
Accounting for materials, labor, and overhead in a manufacturing environment. Includes job order, process, and standard costing systems. Introduces Activity Based Costing. Computer applications are an integral part of the course. Communication of accounting info through development of writing skills. Prerequisite: BTE 102 and 109.

BTE 205 Corporate Accounting (3)
Continuation of BTE 102. Financial accounting procedures unique to corporations. Emphasis on internal controls and GAAP (Generally Accepted Accounting Principles). Computer applications are an integral part of this course. Includes material appropriate for sitting for national competency exam and certification as ABA. Writing skills. Prerequisite: BTE 102 and 109.

BTE 207 Management Planning and Control (3)
Exploration of how accounting data is used by management to make decisions. Emphasizes budgeting, cash flow analysis, breakeven analysis, and "what-if" probability analysis. Development of student determined business plan. Computerized applications are an integral part of course. Writing skills. Prerequisite: BTE 101 and 181. Offered infrequently.

BTE 208 Federal Income Tax Procedures II (3)
Continuation of BTE 201. Covers advanced topics including individual, sole proprietorships, partnerships, corporations, fiduciaries, estate and gift taxes, trusts, and IRS administrative rules and procedures. Content includes material appropriate for national competency exam and certification as Enrolled Agent. Prerequisite: BTE 101 and 201. Offered infrequently.

BTE 220 Professional Practice (0-2; maximum 6)
Students participating in associate's degree co-op program register for this course during semesters when they are on work assignment. Cross-listed with CIT and ENT 220. Prerequisite: Permission of instructor.

BTE 221 Professional Development (1)
For students approaching the major career transition from college to work, either as a graduating student or as a co-op student. Focuses on clarifying plans, preparing resumes, improving interviewing skills, the job search process, assessing employment trends, and identifying and using career development resources.

BTE 224 Medical Terminology (3)
Covers medical terms including definitions, spelling, and pronunciation along with their use in a workplace setting.

BTE 227 Records/Information Management and Control (3)
Study of the process of managing business information recorded in any form- digital, electronic, or paper-from time of creation until final disposition. Topics include establishing an information system, records retention programs, automated storage and retrieval systems, micrographics, forms design and analysis, and vital records protection. Prerequisite: BTE 111, 181 or permission of instructor. Offered infrequently.

BTE 231 Real Estate Principles and Practices (3)
Introduction to real estate studies, including industry structure, economics, marketing, legal environment, finance, appraisal, and other related topics.

BTE 233 Real Estate Law (3)
Basic law for real estate practitioner. Topics include real estate agency law, Ohio real estate license law, property rights, estates and interests in land, deeds, contracts, mortgages and liens, civil rights, tenancy, land contract, state and federal regulations.

BTE 234 Real Estate Finance (1)
Examination of institutions, methods, instruments, and procedures involved in financing real estate.

BTE 235 Real Estate Appraisal (1)
Study of methodology of appraising real property and the theory underlying appraisal techniques.

BTE 241 Management of Business Operations (3)
Explore management approaches, philosophies and techniques to effectively and efficiently operate a business. Includes contemporary topics of e-service, technology management, process re-engineering and quality management. Prerequisite: BTE 111 or permission of instructor.

BTE 242 Management of Small Business Operations (3)
Introduction to management concepts and procedures in starting, developing, and operating small businesses. Methods of planning, organizing, operating, and controlling small businesses are discussed. Prerequisite(s): BTE 101, 109, 111 or permission of instructor.

BTE 243 Management of Worker Relations (3)
Examines theories, skills, and coping mechanisms necessary to understand and manage human behavior in the organization. Focuses on ways organizations and members affect one another and instructs students on how to diagnose and deal with problems in an organizational setting. Areas of emphasis include development of human relation skills, group facilitation, communication, time management, business ethics, diversity, and managing work place conflicts in union and nonunion settings. Prerequisite: BTE 111.

BTE 244 Introduction to Global Business (3)
The globalization of the U.S. economy significantly impacts both organizations and their employees. Business opportunities and career paths that once seemed assured, no longer are. This course analyzes how businesses and individuals compete in the new global economy. Prerequisite: BTE 106 or permission of instructor.

BTE 245 Cultural Awareness - Managing Diversity (3)
As the American economy becomes more global and society becomes more diverse, it is imperative that you understand and value cultural diversity as a source of organizational and personal strength and advantage. This course prepares you to work effectively with colleagues, customers, suppliers and others from diverse cultures. Prerequisite: BTE 111. Offered infrequently.

BTE 252 E-Business Leadership (3)
Learn the approaches used by leaders and managers of e-business organizations to recruit, train, and supervise Internet-ready employees. Study the unique management challenges facing individuals who lead high-speed online organizations. Prerequisite: BTE 181, 286, or permission of instructor. BTE 111 is strongly recommended. Offered infrequently.

BTE 253 E-Business Supply Chain Management (3)
Understand the steps involved in bringing products and services to the customer when the vendor and consumer "meet" only over the Internet. Explore concepts such as business-to-business transactions, drop shipping, Internet customer satisfaction plus vendor and manufacturer selection for online enterprises. Prerequisite: BTE 181, 286 or permission of instructor. BTE 111 is strongly recommended. Offered infrequently.

BTE 254 E-Business Infrastructure Design (3)
Examines the steps involved in creating a strong business presence on the Internet from the viewpoint of those who work behind the scenes. Understand the complexities of sourcing the proper service providers, payment and accounting systems, and other tools that can help an e-business enterprise run smoothly. Study how to convert successful brick-and-mortar businesses into viable brick-and-click operations. Prerequisite: BTE 181, 286, or permission of instructor. BTE 111 is strongly recommended. Offered infrequently.

BTE 261 Customer Service and Satisfaction (3)
Examines the importance of meeting and exceeding customers' expectations after the sale. Identify and explore issues related to developing long-term, loyal customers including the correction of minor problems and delivery and the generation of repeat business based on performance. Prerequisite: BTE 105, 181, or permission of instructor.

BTE 262 Retail Management - An Introduction (3)
Introduction to retailing, with emphasis on major types of stores; non-store retailing; merchandising, pricing, and promotional strategies; current trends in retailing. Prerequisite: BTE 105, 181 or permission of instructor. Offered infrequently.

BTE 263 Sales and Promotions (3)
Understand how advertising and other promotional techniques may be used to communicate with consumers. Learn how effective sales processes and promotional activities function as important aspects of a balanced marketing plan. Prerequisite: BTE 105, BTE 181, or permission of instructor. Offered infrequently.

BTE 264 Virtual Communications (3)
Explores the creation and use of virtual communities on the Internet. Learn how organizations act to influence the content and membership of virtual communities and how these informal discussion groups can drive product/service acceptance among broad groups of consumers and/or between suppliers and customers in business-to-business transactions. Prerequisite: BTE 105, BTE 181, or permission of instructor. Offered infrequently.

BTE 265 Internet Marketing (3)
Learn the fundamental strategies and processes that are best-suited to selling products and/or services online. Investigate how brick-and-mortar and Internet businesses differ in their primary marketing approaches. Prerequisite: BTE 105, BTE 181, or permission of instructor. BTE 264 is strongly recommended. Offered infrequently.

BTE 266 Consumer Behavior (3)
Explores the factors that drive consumers to make specific product and/or service selections in the marketplace. Understand the complexities of the product/service purchasing process as viewed through the eyes of the consumer. Prerequisites: BTE 105, BTE 181, or permission of instructor.

BTE 267 Marketing Research (3)
Master the fundamentals of designing/executing quantitative and qualitative marketing research studies. Learn how marketing research experts select the proper type of research study, design the necessary research tools, and analyze the resulting data set. Prerequisite: BTE 105, BTE 181, or permission of instructor.

BTE 268 New Product Development (3)
Examines how marketers interface with individuals in other business functions during the new product development process. Learn the basic steps involved in bringing a new product to market including ideation, prototype development, test marketing, and final roll-out. Prerequisite: BTE 105, BTE 181, or permission of instructor.

BTE 269 Pricing Theory and Practice (3)
Examines how market professionals and others work to establish new product/service pricing. Explores the pricing process including determination of costs, profit margins, discounting, and the new one-price, no negotiation strategies popular in today's market. Prerequisite: BTE 105, BTE 106, BTE 181 or permission of instructor. Offered infrequently.

BTE 281 Business Communications Software (3)
Practical hands-on experience for learning fundamentals of word processing and other publication software to produce various business documents, reports, newsletters, brochures, and catalogs. Software utilized is regularly updated. Prerequisite: BTE 181.

BTE 282 Computer-Based Business Analysis (3)
Analytical methods in management information and decision-making situations using Microsoft Excel. Also helps students prepare for Microsoft Office User Specialist (MOUS) expert-level Microsoft Excel certification. Prerequisite: BTE 181 or permission of instructor.

BTE 283 Desktop Publishing (3)
Focuses on use of microcomputer-based systems using software such as PageMaker, Corel Draw and Publish to produce business publications such as newsletters, advertising fliers, catalogs, brochures, business proposals. Emphasis is given to page layout and design including integration of text, graphics, photography, and data. Prerequisite: BTE 181 or permission of instructor. Offered infrequently.

BTE 284 Technology for Knowledge Workers (3)
Focuses on how productivity software and the Internet drive knowledge-worker tasks such as electronic calendaring, collaboration, electronic-document management, and the creation of workgroup Intranets. Microsoft Office and other productivity software used. Prerequisite: BTE 181 or permission of instructor.

BTE 285 Business Information Management (3)
Focuses on understanding, from an end-user perspective, how databases provide the information necessary to run businesses. Emphasis is on Internet businesses. Also helps students prepare for Microsoft Office User Specialist (MOUS) expert-level certification in Microsoft Access. Prerequisite: BTE 181 or permission of instructor.

BTE 286 Business and the Internet (3)
Focuses on the impact of the Internet on business. Topics include E-commerce, corporate Intranets and Extranets, portals, security issues, Web site planning, and design and implementation. Utilizes Microsoft Front Page software. Prerequisite: BTE 181 or permission of instructor.

BTE 290 Special Topics in Business Technology (1-3, repeatable with permission of chair; maximum 9)

BTE 301 Personal Organization Skills (3)
The course focuses on personal development of skills vital to leadership with topics such as developing self-awareness, handling stress, managing conflict, building effective teams, making oral & written presentations, and conducting meetings. Individual skills are assessed using various measures.

BTE 302 Financial Information for Managers (3)
The view of the non-financial manager/user of financial information is taken. Key concepts are reviewed with an emphasis on their managerial use and interpretation versus their construction. Accounting terms are presented with an emphasis on the non-financial manager/user of information.

BTE 401 Leadership Decision Skills (3)
The belief of this course is leadership can occur at any level of the organization and that everyone can improve their leadership skills. This course will develop leadership decision making skills required for effective leadership through the study of leadership approaches/theories and applications.

CHEMICAL AND PAPER ENGINEERING COURSES (PCE- Engineering and Applied Science)

PCE 201 Principles of Paper Science and Engineering (3)
Introduction to pulping and papermaking. Course will discuss scientific and engineering aspects of papermaking from fiber procurement through pulping, conditioning, papermachine and converting. Develop practical lab skills. Apply engineering skills to problem solving related to paper industry. Prerequisite(s): EAS 101 and 102 or instructor approval.

PCE 202 Pulp and Paper Physics (3)
Introduction to material properties of paper and how they are influenced by raw materials and the papermaking process. Conduct laboratory investigations to determine the properties of paper made

in the laboratory and from a pilot paper machine. Prerequisite(s): PCE 201 and PHY 181 and one of the following: PCE 219 or MME 211.

PCE 204 Material and Energy Balances (3) MPT
Techniques used to calculate material and energy balances with special emphasis on paper industry applications. Prerequisite(s): grade of C or better in CHM 142; and MTH 251. Concurrent course: PHY 181.

PCE 219 Statics and Mechanics of Materials (3)
This course provides an introduction to the fundamentals of the mechanics of materials for engineering students in the departments of Electrical and Chemical and Paper Engineering. The course stresses statics, mechanics of deformable media, and material behavior. Elements of dynamics, elasticity, and viscoelasticity will be covered. The central theme of the course that binds these subjects together is proper problem formulation in terms of kinematics, constitutive behavior, equilibrium, and compatibility. Not open to MME majors. Prerequisites: EAS 102, Co-requisite: PHY 181.

PCE 244 Introduction to Environmental Engineering (3)
Introductory design concepts for the control of water pollution, air pollution, and solid waste will be covered. Environmental legislation will be discussed. Solutions to environmental problems will be investigated, considering technical, economical and ethical aspects of engineering. Cross-listed with IES 244. Prerequisites: CHM 137 or CHM 141 or equivalent, MTH 151 or equivalent.

PCE 301 Pulp and Paper Chemistry (3)
Wood chemistry, chemical pulping chemistry and processes, and wet end chemistry. Chemical composition and structure of lignocellulosic wood fibers. The unit processes used in chemical pulping and bleaching. Kraft Recovery. Colloidal science of retention, sizing, process and functional additives. Prerequisite(s): PCE 201 and one of the following: CHM 231 or CHM 241 or CHM 251.

PCE 311 Unit Operations Laboratory I (2)
Laboratory course; students conduct experiments and do computer simulations in the areas of material and energy balances and fluid dynamics. Emphasizes acquisition of knowledge about instrumentation commonly used in process industries. Both oral and written laboratory reports required. Prerequisites: grade of C or better in PHY 181 and PCE 204. Concurrent course: PCE/MME 313.

PCE 312 Unit Operations Laboratory II (2)
Laboratory course consisting of experiments and computer simulations in topics from the process industries. Both written and oral laboratory reports required. Prerequisites: a grade of C- or better in PCE 313. Co-requisite: PCE 403.

PCE 313 Fluid Mechanics (3) MPT
Introduction to unit operations as applied to paper industry with emphasis on fluid mechanics. Prerequisite: MTH 251, PHY 181, and PCE 219 or MME 211. Cross-listed with MME 313.

PCE 314 Engineering Thermodynamics (3)
Study of the fundamental principles of thermodynamics. Emphasis placed on engineering applications such as power cycles, refrigeration, and heat transfer systems. Prerequisite(s): MTH 251, PHY 181. Cross-listed with MME 314.

PCE 320 Professional Practice (0)
Students participating in paper science and engineering co-op program register for this course during semesters when they are away from Oxford on work assignment. This enables students to remain in good standing with the University Registrar.

PCE 341 Engineering Economics (3)
Engineering economic decisions; breakeven and minimum cost analysis; engineering methods of resource allocation; concepts of interest; time evaluation of tactical and strategic alternatives. Prerequisite: ECO 201, MTH 151. Co-requisite: STA 368 or PCE 204. Cross-listed with MME 341.

PCE 403/503 Heat Transfer (3) MPT
Continued study of unit operations with emphasis on heat transfer. Study of steady and unsteady conduction, and laminar, turbulent, boiling, and condensing convective heat transfer. Radiation heat transfer, heat exchangers, evaporators, and transfer units. Prerequisite(s) : Grade of C- or better in PCE/MME 313, PCE/MME 314, MTH 245. Cross-listed with MME.

PCE 404 Papermaking (3)
Papermaking process with emphasis on chemical engineering principles involved. Prerequisite: PCE/MME 313 and PCE 202. Concurrent course: PCE/MME 341.

PCE 405/505 Industrial Environmental Control (3)
Survey of environmental issues facing the industry and how the industry addresses these issues. In-plant pollution abatement alternatives discussed as well as external treatment. Computer-based modeling applications introduced and applied to problems. Design considerations involved in selecting among alternative pollution control strategies are presented and applied to examples. Prerequisite(s): PCE/MME 313 and a grade of C or better in PCE 204. Concurrent course: PCE 311.

PCE 411 Advanced Paper Manufacturing (3) MPC
Provides students with the opportunity to synthesize their accumulated knowledge and skills in paper science, paper engineering, economics, statistical methods, environmental technology, writing, oral presentation, safety, ethical standards, and teamwork fundamentals. Student teams determine the raw materials and processing conditions required to produce paper that matches a sample of "unknown paper." Prerequisite: PCE 404 and senior standing, or by permission of the instructor.

PCE 412/512 Chemical Engineering Thermodynamics (3)
Advanced thermodynamics with emphasis in phase and chemical equilibrium. Thermodynamic relations and applications. Properties of ideal and non-ideal one-component and multi-component systems: ideal and non-ideal phase equilibria; phase diagrams; design of equilibrium flash separators. Phase equilibria using equation of state; chemical equilibrium; optimum conditions for feasible reaction equilibria. Prerequisite: PCE/MME 314 or permission of instructor.

PCE 414/514 Mass Transfer (3)
Continued study of unit operations, with emphasis on mass transfer and special problems. Steady and unsteady diffusion, convective mass transfer, absorption, scrubbing, and stripping. Humidification, psychometry, and drying. Multiple effect evaporators, cooling towers, packed towers, distillation. Prerequisite(s): PCE/MME 313, PCE/MME 314, MTH 245 and a grade of C or better in PCE 204.

PCE 415/515 Chemical Kinetics and Reactor Design (3)
Chemical Kinetics of homogeneous and heterogeneous reactions, kinetic theories, mechanism and modeling, reactor design, design of multiple reactions; temperature and pressure effects. Non-ideal reactors, survey of catalytic and biochemical reaction systems. Prerequisite: PCE/MME 313, 314, MTH 245 and a grade of C or better in PCE 204.

PCE 416/516 Biochemical Engineering (3)
This course is an introduction to the fundamental concepts concerning biochemical kinetics and bioreactors. In particular, this course will focus on enzymatic reactions and fermentations using genetically engineered organisms. Biochemical topics include overviews of cell structure, enzyme kinetics and cell growth kinetics. Engineering topics include: immobilization, fermentor design and sterilization processes. Prerequisites: MTH 245, CHM 332 or 432, PCE 415 and a grade of C or better in PCE 204 or by permission of instructor.

PCE 417/517 Biomedical Engineering (3)
This course is an introduction to the fundamental concepts in biomedical engineering with a special focus on chemical engineering applications. In particular, this course will focus on transport phenomena in biological systems, pharmacokinetics and tissue engineering. Engineering topics will also include discussions concerning the design of equipment and materials for, dialysis, oxygenation, artificial organs, and tissue engineering. Prerequisite(s): MTH 245, PCE 414, a grade of C or better in PCE 204 or permission of instructor.

PCE 418/518 Biological Transport Phenomena (3)
Fundamentals and integration of fluid mechanics, heat transfer, and mass transfer in living systems. Basic concepts of transport phenomena are presented and applied to biological systems and to the design of medical devices. Prerequisites: MME/PCE 314; MTH 251; PHY 181.

PCE 419/519 Biomaterials (3)
Integration and application of the fundamentals of natural and synthetic biomaterials, with focus on polymers, ceramics, composites, nanomaterials, and metals. Other topics include biomimetic/biomechanical design, biomaterial/tissue interaction and regulatory issues. Prerequisites: CHM 231 or CHM 241 and CHM 244; PCE 418.

PCE 421 Bioethics (1)
The application of ethical theories and codes of ethics to the ethical decision-making processes. Ethical issues involved around making choices about human life saving and enhancing its quality, human

and animal experimentation, regulation involving bio-related research and data collection and analysis, standards for the design of medical devices and their certification. Other related issues such as intellectual property rights will be considered. Prerequisites: senior standing or permission of instructor.

PCE 422/522 Biological Systems and Controls (3)
This course provides an introduction to the fundamentals of control theory as it relates to bioengineering applications. Specific topics include linear systems analysis, electromechanical transfer functions, process transfer functions, stability, feedback control and modeling physiological systems. Applications involving membrane transport, pharmacokinetics and extracorporeal devices will also be covered. Prerequisites: ECE 205; MTH 245; PCE 204 and PCE 418.

PCE 425/525 Surface and Colloid Science of Papermaking (3)
Covers basic concepts associated with papermaking process and properties of paper. Includes descriptions of basic colloid properties of fibers, fines, and other papermaking materials. Prerequisite: CHM 252 or grade of C- or better in CHM 231 or CHM 251.

PCE 441/541 Pollution Prevention in Environmental Management (3)
Provides understanding of how corporations respond to governmental regulation by setting up environmental management systems which employ the principles of pollution prevention. Engineering concepts such as material balances, energy balances, risk assessment, and life cycle assessment have impacted new process designs. In this course a basis for evolution and maturation of pollution prevention as a fundamental methodology to ensure compliance and economic sustainability of industrial processes will be provided. The understanding of the concepts of pollution will be demonstrated by participation in a class project sponsored by industry at one of their facilities. Prerequisites: PCE 204; and junior standing. Co-requisites: PCE/MME 341.

PCE 442/542 Air Pollution Control (3)
This course will introduce students to the formation and control of air pollutants, engineering theories and principles pertaining to the design of air pollution control operations, and environmental legislation. Solutions to environmental problems will be investigated, considering technical, economical and ethical aspects of engineering. Prerequisite: PCE/MME 313, 314, 341, a grade of C or better in PCE 204 or permission of the instructor.

PCE 450/550 Special Topics (1-5; maximum 20)

PCE 451/551 Unit Operations Laboratory II (2)
Laboratory course consisting of experiments and computer simulations in topics from the process industries involving heat, mass and momentum transfer, and process control. Both written and oral laboratory reports are required. Prerequisite(s): PCE 403 and 414. Concurrent course: PCE 482.

PCE 461/561 Coating Technology (3)
Methods used in coating paper and properties of coating formulation. Prerequisites: PCE 202, PCE/MME 313.

PCE 471/472 Engineering Design I, II (1, 2) MPC
Involves application and synthesis of accumulated knowledge in a major, open-ended, industrial research/design project. Critical elements of the design process and real world constraints (economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability) are considered. Emphasis is placed on oral and written communication skills. Students from different academic backgrounds are assigned to multidisciplinary project teams in order to utilize their varied experiences, knowledge, learning styles, and skills to achieve a successful conclusion to each project. Prerequisite(s): senior standing, or permission of instructor.

PCE 473/573 Chemical Process Design (3)
This is a project-based course in which chemical engineering technology, process simulation, and economic analyses are used to design chemical processes. The technical and economic aspects of equipment selection and design and alternative methods of operation will be covered. Prerequisite: PCE/MME 341; PCE/MME 403 and a grade of C or better in PCE 204.

PCE 482/582 Process Control (3)
Study of system dynamics and control schemes used for continuous processes. Block diagrams, steady-state and dynamic response, Laplace transforms, computer simulations and closed loop control. Stability, tuning, and controller synthesis. Prerequisite: grade of C- or better in PCE/MME 313, PCE/MME 314, and MTH 245.

PCE 490/590 Special Topics in Paper and Chemical Engineering (1-3; maximum 5)
Advanced special topics in paper and chemical engineering. Prerequisite: Either permission of instructor or as defined by topic.

PCE 600 Graduate Seminar (1; maximum 6)
Required of all graduate students in residence. Student preparation and presentation of lectures on scientific and engineering topics related to thesis research areas. Prerequisite: graduate standing.

PCE 604 Process Analysis (3)
Study of the methods used in carrying out material and energy balance calculations with special emphasis on computer simulation techniques.

PCE 611 Transport Phenomena in Engineering (3)
Principles and mechanism of heat, mass and momentum transport. Development of generalized transport equations; macroscopic and microscopic balances; simultaneous heat and mass transfer. Analogy of mass, heat and momentum transfer. Prerequisites: PCE 403, 414 (or equivalent) and graduate standing or instructor approval.

PCE 612 Chemical Engineering Analysis (3)
Analytical considerations involving the construction and solutions of mathematical models of heat and mass transfer diffusion and convection, mass and energy balance, and simultaneous mass and heat transfer mechanisms relevant to catalysis and chemical reactor design. The analytical methods will cover the modeling of unsteady state engineering problems. Prerequisites: PCE 403, 414, 415 (or equivalent) and graduate standing or permission of instructor.

PCE 613 Fluid Mechanics (3)
Introduction to unit operations as applied to paper industry with emphasis on fluid mechanics. Designed for graduate student with non-engineering background. Prerequisite: graduate standing.

PCE 620 Papermaking (1-4)
Study of papermaking process with emphasis on chemical and engineering principles involved. Students expected to study pertinent technical literature in addition to completing class assignments. Prerequisite: graduate standing and permission of chair.

PCE 621 Paper Physics (3)
Study of the fundamental factors that govern the physical, mechanical, transport, and optical properties of paper. Explore how materials, the papermaking process and converting impact the performance of paper. Prerequisites: PCE 620 or equivalent, or permission of the instructor.

PCE 630 Pulping (1-4)
Study of mechanical and chemical pulping processes with emphasis on chemical and engineering principles involved. Prerequisite: graduate standing and permission of chair.

PCE 651 Computational Thermodynamics (3)
Study of thermodynamic properties as they relate to kinetics and transport mechanism of the material growth process. Integration of the principles of thermodynamics with computer software applications. Simulation of equilibria and transformations in materials for developing an understanding of phase stability, phase composition, and defects. Exploration of phase diagrams of single and multicomponent systems along with models to describe the thermodynamic properties of various phases. Prerequisite(s): PCE 412 and graduate standing or instructor approval.

PCE 690 Graduate Research (1-12)
Prerequisite: graduate standing and permission of chair.

PCE 710 Industrial Practicum (1-12)
Analysis and solution of an industrial problem.

PCE 613 Fluid Mechanics (3)
Introduction to unit operations as applied to paper industry with emphasis on fluid mechanics. Designed for graduate student with non-engineering background. Prerequisite: graduate standing.

CHEMISTRY AND BIOCHEMISTRY COURSES (CHM-Arts and Science)

CHM 102 Introduction to Research in Biology (1)
Designed to meet the following goals: 1) To provide an introduction to research in the general areas of cell, molecular and structural biology (CMSB). (2) To appreciate the overall research theme of Signaling mechanisms and cellular responses. (How cells respond to their environment by regulation of gene expression, cellular physiology, cell and tissue morphogenesis, as well as behavior). (3) To convey the significance and relevance of research being conducted in individual research labs. (4) To learn about research based careers in the Biological sciences. Cross-listed with BOT/MBI/ZOO.

CHM 103 Introduction to Research in Biology (Lab Rotations) (2)
Designed to complement the seminar course which provides an introduction to research in the general areas of cell, molecular and structural biology (CMSB). Students will have the opportunity to conduct two 8 week laboratory rotations and become involved in ongoing research projects. Through laboratory experiences, students will become familiar with skills essential for laboratory research, and become aware of routinely used tools and techniques. Cross-listed with BOT/MBI/ZOO. Prerequisite(s): BOT/CHM/MBI/ZOO 102.

CHM 109 Chemistry Fundamentals (1)
Introduction to vocabulary and symbols used in introductory chemistry courses. Enables students to make a smooth transition into CHM 111. A student may not receive credit for graduation for both this course and any chemistry course numbered 141 or above. Offered only on Hamilton and Middletown campuses.

CHM 111 Chemistry in Modern Society (4) MPF
For non-science majors. Considers both nature of basic chemical processes and ways that chemistry affects our society. Introduction to how scientists approach problems and make decisions. 3 Lec. 1 Lab. IVB, LAB. CAS-D/LAB.

CHM 115 Foundations of the Chemical Process Industry (2)
The scope and dynamics of the chemical industry are important considerations for those planning industrial careers in chemistry and chemical technology. This course provides an inside look at the wide variety of products generated by the U.S. chemical industry within the dynamics of a world economy, changing governmental regulations, increasing awareness of environmental health and safety issues, and changing technologies. This course lends an appreciation of the business decisions made by the chemical industry that funds research and development, as well as providing students with a knowledge of the role of the chemical technician in the chemical process industry.

CHM 131 Chemistry of Life Processes (4) MPF
Integrated lecture and laboratory course for non-science majors that relates basic inorganic and organic chemical processes to those of biochemistry. Explores the nature of atoms and molecules in terms of simple structures and reactions, and the more complex structures of biochemical molecules and their interactions with living systems. Prerequisite: introductory high school physical science and algebra or CHM 109. 3 Lec. 1 Lab. IVB, LAB.

CHM 141, 144 College Chemistry/College Chemistry Lab (3,2) MPF
Covers same content as CHM 141R, but assumes some previous study of chemistry. Credit not given for both CHM 141R and 141. Prerequisite: one year of high school chemistry and a math placement score of 12 or higher or permission of instructor. IVB, LAB.
* **Note:** These courses require concurrent registration and carry separate course numbers.

CHM 141R, 144 College Chemistry/College Chemistry Lab (4,2) MPF
Coordinated lecture, recitation and lab (144) to develop ideas, experience, methodology, and skills used in the application of scientific methodology. Framework is consideration of fundamental principles of atomic and molecular structure, chemical bonding, properties of solutions, and chemical reactions. Gain skills in developing hypotheses, observing chemical phenomena, collecting data, and evaluating results critically. Concurrent course: CHM 144. Prerequisite(s): Permission of instructor or Math Placement score of 8-11. Credit not given for both CHM 141 and 141R. IVB, LAB.

CHM 141M College Chemistry for Majors (3) MPF
Covers the same content as CHM 141R, but assumes previous study in Chemistry and interest in chemistry as a major (See CHM 141R). Credit not given for both 141M and 141 or 141R. Prerequisite: One year high school Chemistry or permission of instructor. IVB.

CHM 142 College Chemistry (3) MPF
Fundamental principles of atomic and molecular structure, chemical bonding, properties of solutions, and chemical equilibrium. Prerequisite: CHM 141; concurrent registration in CHM 145.

CHM 142M College Chemistry for Majors (3) MPT
Covers the same content as CHM 142, but assumes interest in chemistry as a major (See CHM 142). Credit not given for both 142M and 142. Prerequisite: CHM 141.

CHM 145 College Chemistry Laboratory (2) MPT
Laboratory exercises to illustrate fundamental principles of chemistry. Includes qualitative analysis. Prerequisite: CHM 144; concurrent registration in CHM 142 is required. CAS-D/LAB.

CHM 147 Introductory Seminar-Chemistry/Biochemistry (1)
An introduction to the various Chemistry and Biochemistry programs. Conducted in a seminar/lecture format, the course will include professional orientation, an introduction to undergraduate research opportunities and career options for the various majors.

CHM 153 General Chemistry Laboratory (2) MPF
Reactions of inorganic ions in aqueous solution, qualitative analysis, and laboratory techniques for simple quantitative measurements. Emphasis on safety, laboratory skills, and critical evaluation of inorganic reactions in solution. Prerequisite: high school chemistry or permission of instructor. Concurrent registration in CHM 141M required. IVB, LAB. CAS-D/LAB.

CHM 161 Quantitative Analysis (2) MPT
Classical quantitative analysis of chemical species in solution. Includes theory, problem solving, and laboratory experiments. Prerequisite: CHM 141.M and 153. Concurrent registration with CHM 142.M recommended. CAS-D/LAB.

CHM 175 Environmental Science Seminar (1)
Introduces the multidisciplinary nature of environmental science and the solution of environmental problems. Cross-listed with BOT, GEO, GLG, MBI, MTH, STA, and ZOO. This course does not meet any CAS requirements.

Note: You may transfer from an introductory sequence to a lower-numbered sequence at the end of first semester.

Advanced Chemistry and Biochemistry Courses

CHM 207 Writing Scientific Proposals (1)
This one credit hour seminar/discussion course will provide the opportunity for students to develop a research proposal and/or develop a manuscript for publication and/or a poster presentation. The overall goal of this course is to help students learn to write effectively in the field of cell, molecular and structural biology. Writing exercises will take the form of assignments that require the student to develop successive sections of the research proposal or other writing project until it is complete. Students will learn to (a) identify the attributes of a well written proposal, paper or poster, (b) search and cite appropriate, relevant literature (c) develop an awareness of plagiarism and ethics in science writing, (d) understand the role of constructive, critical feedback and editing and revising their writing. Cross-listed with BOT/MBI/ZOO 207.

CHM 215 Chemical Technology II (2)
Second in a series of two laboratory-based courses designed for those seeking careers in chemical technology, this course involves investigations of separation science, chemical analysis, and measurement. Students are challenged by advanced trouble shooting problems and real-world client-employee scenarios encountered by chemical technicians in the chemical process industry. Topics include electrochemical and potentiometric measurements, basic separation techniques, chemical analysis of water and biochemical systems, applications and theory behind gas chromatography and high performance liquid chromatography, and selection and application of standard methods. Advanced topics of chemical health and safety (e.g., hazardous materials management and regulatory compliance) and advanced issues of good laboratory practices (GLPs) included. Prerequisite(s): CHM 145 and 142.

CHM 218 Chemical Technology Laboratory II (3)
Second in a series of two laboratory- based courses designed for those seeking careers in chemical technology, this course involves investigations of separation science, chemical analysis, and measurement. Students are challenged by advanced trouble shooting problems and real-world client-employee scenarios encountered by chemical technicians in the chemical process

industry. Topics include electrochemical and potentiometric measurements, basic separation techniques, chemical analysis of water and biochemical systems, applications and theory behind gas chromatography and high performance liquid chromatography, and selection and application of standard methods. Advanced topics of chemical health and safety (e.g., hazardous materials management and regulatory compliance) and advanced issues of good laboratory practices (GLPs) included. Prerequisite: CHM 142. Co-requisite: CHM 215.

CHM 231 Fundamentals of Organic Chemistry (4) MPT
One-semester course covering organic structures and reactions with simple examples from living systems. Prerequisite: CHM 142 and 145. 3 Lec. 1 Lab. CAS-D/LAB.

Note: Credit may not be received for both CHM 231 and 241, 242 or 251, 252.

CHM 240 Chemical Technology Industrial Internship/Co-op Experiences (1-15)
Provides a workplace experience to bridge the gap between theory and classroom preparation with actual practices used in the workplace. By carrying out workplace assignments in area industry, government, or private laboratories students gain increased access to state-of-the-art technology and are provided opportunities for enhancing skills. Offered as either an internship or cooperative learning experience, this course is designed for students seeking degrees in chemical technology. Prerequisite: CHM 145.

CHM 241/242 Organic Chemistry (3, 3) (CHM 241 is MPT.) MPT
Study of stereochemistry and the reaction mechanisms of various types of organic compounds with examples of chemical reactions in biological systems. For premedical and pre-dental students and science majors not planning a career in chemistry. Prerequisite(s): (241) CHM 142 or 142M; (242) CHM 241. Co-requisite(s): CHM 244, 245.

CHM 244/245 Organic Chemistry Laboratory (2, 2) (CHM 244 is MPT.) MPT
Introduction to experimental techniques involved in synthesis, purification, and chemical identification of organic molecules. Concurrent registration in CHM 241, 242 required. Prerequisite: (244) CHM 145; (245) CHM 244. CAS-D/LAB.

CHM 251/252 Organic Chemistry for Chemistry Majors (3, 3) (251 is MPT)
For those planning a career in chemistry or biochemistry. Modern concepts of molecular structure, mechanisms of organic reactions, and synthetic methods for organic compounds, including natural products. Concurrent registration in CHM 254, 255 required. Prerequisite: (MPT 251) CHM 142M; (252) CHM 251.

CHM 254/255 Organic Chemistry Laboratory for Chemistry Majors (3, 2) (254 is MPT.) MPT
Introduction to modern experimental techniques in organic chemistry as applied to synthesis, purification, and determination of the structure of organic molecules. Concurrent registration in CHM 251, 252 required. Prerequisite: (MPT 254) CHM 153 or equivalent; (255) CHM 254. CAS-D/LAB.

CHM 275 Principles of Environmental Science (3)
Introduction to the principles and methodologies of environmental science. Topics include contamination of earth systems and pollution mitigation; use, abuse, and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. Cross-listed with BOT, GEO, GLG, MBI, MTH, STA, and ZOO. This course does not meet any CAS requirements.

CHM 332 Outlines of Biochemistry (4) MPT
Introduction to biochemistry of multifunctional organic molecules including carbohydrates, lipids, nucleic acids, and proteins. Prerequisite: CHM 231, 242, or 252. 3 Lec. 1 Lab. CAS-D/LAB.

Note: Credit may not be received for both CHM 332 and 432, 433, 434.

CHM 351/352 Physical Chemistry for Chemistry Majors (3,3)
Theoretical bases of chemistry formulated from quantum mechanics, thermodynamics, statistical mechanics, and principles of mass transport. Implications of theories, including comparison with experimental results, discussed. Prerequisite: (351) MTH 252 or equivalent and PHY 182; (352).
Note: *Credit may not be received for both CHM 351, 352 and 471, 472.*

CHM 363 Analytical Chemistry (3) MPT
Fundamentals of analytical chemistry including classical and instrumental methods. Prerequisite: CHM 142, 145. Concurrent registration in CHM 364.

CHM 364 Analytical Chemistry Laboratory (2) MPT
Analytical chemistry laboratory including classical and instrumental methods. Prerequisite(s): CHM 142, 145. Concurrent registration in CHM 363. CAS-D/LAB.

CHM 417/517 Advanced Inorganic Chemistry (3)
Survey of fundamental principles of contemporary inorganic chemistry. Prerequisite(s): CHM 142M, 352.

CHM 418/518 Advanced Inorganic Chemistry Laboratory (2)
Advanced experimental techniques involving synthesis, characterization, and reactivity of inorganic compounds. Prerequisite: permission of instructor. CAS-D/LAB.

CHM 424/524 Biological Instrumentation (4)
Theory and application of modern biological instrumentation and techniques such as spectrophotometers, pH meters, thermocyclers, and DNA sequencers. Basic and advanced skills including the use, maintenance and calibration of biological instruments. Prerequisites: BOT/MBI/ZOO 115/116 or BOT 191 or MBI 201 or MBI 202 or ZOO 113/115 or ZOO 114/116 or equivalent, CHM 141/142 or equivalent, or permission of instructor. Cross-listed with BOT/MBI/ZOO 424/524. Offered fall semester of even years.

CHM 426/526 Spectroscopic Identification of Structure (3)
Application of infrared, ultraviolet, nuclear magnetic resonance, and mass spectrometry to the solution of structural problems in organic chemistry. Prerequisite: CHM 242 or 252.

CHM 429/529 Polymer Chemistry (2)
Comprehensive overview and examination of the methods used to synthesize and characterize macromolecules. Both descriptive and mechanistic organic chemistry, as it relates to polymer synthesis, is discussed. The relationship between molecular structure and material properties will be another focus of the course. CAS-D.

CHM 430 Topics in Biochemistry (1-3; maximum 8)
Advanced coverage of selected topics in biochemistry. Prerequisite: CHM 432.

CHM 432/532 Fundamentals of Biochemistry (4) MPT
Principles of biochemistry with emphasis on structure of biological molecules and metabolic processes. Prerequisite: CHM 242 or equivalent.

CHM 433/533 Biochemistry (3) MPT
General principles of biochemistry and their relationship to chemical structure. Prerequisite: CHM 242 or equivalent.

CHM 434/534 Biochemistry (3)
General principles of biochemistry and their relationship to chemical structure. Prerequisite: CHM 433/533.

CHM 438 Biochemistry Laboratory (3)
Laboratory course utilizing modern biochemical techniques. Emphasis on logic, design, and execution of biochemical experimentation. Prerequisites: CHM 432, CHM 434 or permission of instructor.

CHM 454/554 Instrumental Analysis (3)
Lecture course emphasizing spectroscopic, electrochemical, and chromatographic methods to determine chemical composition of samples with principles of chemical equilibrium presented to assist in data interpretation. Prerequisite(s): CHM 161, 351, and concurrent registration in CHM 352 or 472.

CHM 455 Chemical Measurements I (2)
Laboratory course emphasizing instrumental methods of chemical analysis and methods of measuring physical-chemical properties. Prerequisites: CHM 161, 255, 351, and concurrent registration in CHM 454. CAS-D/LAB.

CHM 456 Chemical Measurements II (2)
Laboratory course emphasizing instrumental methods of chemical analysis and methods of measuring physical-chemical properties. Prerequisite: CHM 352, 454, and 455. CAS-D/LAB.

CHM 463/563 Environmental Chemistry (2)
The relationship between the development of new analytical methods for interrogating samples and understanding of chemical processes in the environment is discussed.

CHM 471/571 Physical Chemistry (3, 3)
Fundamentals of physical chemistry. Basic theories of chemistry are developed and related to experimental results of physical chemistry. Prerequisite(s): MTH 251 or equivalent, and PHY 182.

CHM 472/572 Biophysical Chemistry (3)
Fundamentals of biophysical chemistry. Basic theories of chemistry are developed and related to experimental results of biophysical chemistry. Prerequisite: CHM 471/571.

CHM 473/573 Exploring Chemistry with Quantum Methods (3)
Molecular orbital theory with the emphasis on gaining practical experience in the use of computational techniques of quantum chemistry. Prerequisite: CHM 352 or permission of instructor.

CHM 480 Departmental Honors (1-6; maximum 6)
Prerequisite: permission of department chair.

CHM 490 Undergraduate Research (1-4; maximum 6)
Elected only after consultation with instructor. Prerequisite: 2.3 or better cumulative average in chemistry. Standard letter grade.

CHM 491 Chemistry in Societal Issues (3) MPC
Chemistry is involved in many of the societal issues facing this nation. In order to protect the environment, create new energy sources, improve health, and increase consumer product safety, understanding chemistry is critical to the problem-solving process. It is important for students in technical fields to understand the interface between the known chemistry and government regulations, public perception, and legal interpretations. Students critically evaluate and form positions on current issues of national interest. Prerequisite: any 300-level chemistry course. Ideally suited for students who have taken the Thematic Sequence in chemistry.

CHM 492 Independent Research Capstone in Chemistry (3) MPC
Students work intensively with instructor to identify a suitable research question; perform research necessary to resolve the question; write a detailed report of the research, results, and the broader scientific and social implications of the overall research project; and communicate the research results to other students and professionals by participation in departmental research presentations and/or participation in a recognized professional meeting. Prerequisite: Permission of instructor and department chair, and one semester of CHM 377, 477, 480, or 490 Independent Study.

CHM 600 Seminar in Chemistry (1; maximum 12)
Required of all chemistry graduate students in residence. Prerequisite: graduate standing.

CHM 621 Methods in Chemical Education Research: Elements of Effective Teacher Enhancement Efforts (2)
Course examines issues involved with effective chemical education teacher enhancement initiatives, explores pertinent research findings, and engages students in critiques and performance effectiveness reviews.

CHM 622 Methods in Chemical Education Research: Materials and Curriculum Development (2)
Course examines national trends in chemical education curriculum, explores issues associated with materials development and testing as it is applied to chemistry curriculum, and engages students in implementing protocols used within the discipline.

CHM 623 College Chemistry Teaching (2)
Course examines different strategies for teaching chemistry at the college level and explores theories of teaching and learning as they pertain to chemistry instruction.

CHM 641 Organic Principles and Theory (3)
Advanced molecular orbital calculations and experimental methods for elucidation of organic reaction mechanisms. Prerequisite: CHM 242 or 252 and 352.

CHM 642 Organic Synthetic Methods (3)
Scope and limitations of synthetically useful reactions and techniques. Overall strategy and problems in multistep synthesis of natural products emphasized. Prerequisite: CHM 242 or 252.

CHM 650 Seminar in Molecular Biology (1)
Discussion of current literature in molecular biology. Prerequisite: graduate standing. Cross-listed with BOT/MBI/ZOO.

CHM 653 Elemental and Particle Analysis (1)
Atomic absorption, atomic fluorescence and various plasma emission methods in conjunction with mass spectrometry are described. Both fundamental aspects of the methods and their application to elemental and particle analysis will be covered. Emphasis is on the chemistry occurring in flames and plasmas and the fundamentals of signal generation. Prerequisite(s): CHM 454, CHM 352 or their equivalents.

CHM 654 Electrochemical Methods in Analytical Chemistry (2)
Advanced instruction on redox equilibrium, ion selective electrodes, fundamentals of various voltametric methods, applications of electrochemical methods to trace element detections, bioanalysis, and sensors surface vibration spectroscopies;scanning probe microscopy; surface structure determination by electron and X-ray based techniques; electrocatalysis. Prerequisite(s): CHM 454 or the equivalent or permission of instructor.

CHM 655 Theory & Practice of Chemical Lab Instruction (2)
Evaluation and examination of current practices for the teaching of laboratory components of chemistry courses. Emphasis placed on safety, technique, and evaluation. The proper use of reference material and library search techniques is also emphasized.

CHM 661 Advanced Analytical Chemistry (2)
Lecture course emphasizing fundamental principles of classical analytical chemistry, including acidbase, complexation, and solubility equilibria. Prerequisite: CHM 554 or permission of instructor.

CHM 662 Particle Spectroscopy (2)
Lecture course emphasizing fundamental principles of mass spectrometry, but also including surface techniques. Prerequisite: CHM 554 or permission of instructor. Offered infrequently.

CHM 663 Electroanalytical Chemistry (2)
Fundamental principles of electrochemistry emphasizing primarily theory, potentiometry, and voltammetry. Prerequisite: CHM 554 or permission of instructor.

CHM 664 Separation Science (2)
Fundamental principles of separation science emphasizing chromatographic theory, gas and liquid chromatography, and capillary electrophoresis. Prerequisite: CHM 554 or permission of instructor. Offered infrequently.

CHM 672 Molecular Spectroscopy (3)
Vibrational and rotational spectra of molecules and their relation to detailed molecular structure and to intermolecular effects. Prerequisite: Permission of instructor. Offered infrequently.

CHM 674 Chemical Kinetics (2)
Phenomenological and theoretical descriptions of chemical rate processes. Emphasis on mathematical modeling of rate processes in solution. Prerequisite: CHM 572 or equivalent. Offered infrequently.

CHM 692 Chemical Principles and Theory (1)
A review of basic chemical principles designed for entering graduate students in chemistry and biochemistry. Credit/no-credit only.

CHM 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)
Prerequisite: graduate standing.

CHM 710 Topics in Chemistry Education (1-3; maximum 10)
Advanced coverage of selected topics in chemistry education.

CHM 720 Seminar in Organic and Biochemistry (1; maximum 9)
Discussion of recent research findings in areas of organic and biochemistry. Prerequisite: permission of instructor.

CHM 725 Biological Chemistry Seminar (1)
Discussion of recent research findings in biological chemistry.

CHM 730 Seminar in Chemistry Education (1; maximum 9)
Discussion of current literature in chemistry education. Prerequisite: Permission of instructor.

CHM 740 Topics in Organic and Biochemistry (1-3; maximum 10)
Advanced coverage of selected topics in organic and biochemistry. Prerequisite: permission of instructor.

CHM 750 First Year Graduate Seminar (1)
Presentation and discussion of research activities being carried out by the research faculty in Chemistry and Biochemistry. Designed to facilitate selection of a research adviser by the end of the term.

CHM 760 Selected Topics in Inorganic and Analytical Chemistry (1-3; maximum 10)
Advanced coverage of selected topics in inorganic and analytical chemistry. Prerequisite: permission of instructor.

CHM 770 Topics in Physical Chemistry (1-3; maximum 10)
Advanced coverage of selected topics in area of physical chemistry. Prerequisite: permission of instructor. Offered infrequently.

CHM 780 Seminar in Analytical, Inorganic, and Physical Chemistry (1; maximum 9)
Discussion of recent developments in the areas of analytical, inorganic, and physical chemistry. Prerequisite: permission of instructor.

CHM 790 Research (1-15; maximum 20)
Prerequisite: graduate standing.

CHM 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60)
Prerequisite: admission to Ph.D. program.

CHINESE COURSES (CHI-Arts and Science; Department of German, Russian, and East Asian Languages)

CHI 101 Elementary Chinese (4)
Introduction to modern Mandarin Chinese. Focuses on basic communication skills.

CHI 102 Elementary Chinese (4)
Introduction to modern Mandarin Chinese. Focuses on basic communication skills. Prerequisite: CHI 101 or equivalent.

CHI 105 Everyday Spoken Chinese for Travelers (1)
Basics of Mandarin Chinese with emphasis on survival communication skills in everyday situations. Also provides practical information about Chinese society and culture.

CHI 141 Introduction to China (1)
Aims to enhance students' knowledge of Chinese culture and society through lectures, films, field trips and various cultural activities. Pre-requisite(s): Resident on the Chinese floor.

CHI 201 Second Year Chinese (3) MPT
Continue to develop skills in speaking, listening, reading, and writing. Prerequisite: CHI 102 or equivalent.

CHI 202 Second Year Chinese (3) MPT
Continue to develop skills in speaking, listening, reading, and writing. Prerequisite: CHI 201 or equivalent. CAS-A.

CHI 251 Traditional Chinese Literature in English Translation (3) MPF
Chinese literature up to the end of the Qing Dynasty (1911). Introduction of unique features of Chinese literature, society and culture. Study selected classics in Taoism, Confucianism, and Buddhism, and masterpieces in fiction, poetry, and drama. II, Cul. CAS-B-LIT.

CHI 252 Modern Chinese Literature in English Translation (3) MPF
Read selected representative works from mainland China, Taiwan, and Hong Kong, including fiction, poetry, criticism, and film. Lectures furnish the socio-cultural background to establish a framework for understanding and interpretation. IIIB. CAS-B-LIT.

CHI 253 Three Kingdoms (3)
Study the great classic Chinese novel Three Kingdoms (San guo yan yi) (abridged version), supplemented by the Analects of Confucius, the Daodejing and Machiavelli's The Prince. Develops an understanding of character, authority and strategy in traditional Chinese society. In translation.

CHI 254 Modern Chinese Autobiography (3)
Introduces modern Chinese history and culture through several book-length autobiographies and memoirs. Analyzes modern Chinese self-authored life writing. A series of documentary videos provide surveys of important events in modern China as a complement. Taught in English.

CHI 255 Drama in China and Japan in Translation (3) MPF
Provides historical overview of major traditional dramatic art forms of China and Japan: Zaju, Kunqu, Beijing Opera, Noh, Kyogen, Bunraku, and Kabuki. Critically treats and interprets theatrical conventions in each and attempts to clarify aesthetic significance. Cross-listed with JPN 255. IIB, Cul. CAS-B-LIT.

CHI 264 Chinese Cinema and Culture (3)
Study of selected films. Introduces Chinese cinema and, through films, Chinese culture. Works are from mainland China, Taiwan, and Hong Kong. Subject matter is both historical and modern. Knowledge of Chinese is not required. Cross-listed with FST 264.

CHI 277W Chinese Culture Live (1 or 3)
Offered for the summer program in China, the course consists of lectures, trips and practice on topics ranging from history and social customs to local cuisine and taiji. Knowledge of Chinese is not required.

CHI 301 Third Year Chinese (3) MPT
Develop advanced skills in communication. Expand vocabulary and learn additional, more complicated grammatical structures. Read relatively difficult original materials. Prerequisite: CHI 202 or equivalent.

CHI 302 Third Year Chinese (3)
Develop advanced skills in communication. Expand vocabulary and learn additional, more complicated grammatical structures. Read relatively difficult original materials. Prerequisite: CHI 301 or equivalent.

CHI 401 Fourth Year Chinese I (3)
Continuing advanced study of Chinese after CHI 302. While the course further develops students' listening and speaking skills, it will place more emphasis on reading and writing than third year Chinese class does. Longer and more challenging authentic materials will be introduced to develop students' overall ability to handle tasks of relatively complex nature. Prerequisite: CHI 302 or equivalent.

CHI 402 Fourth Year Chinese II (2)
This course continues advanced study of Chinese after CHI 401. While the course maintains an emphasis on developing students' oral communication ability, it will also introduce more difficult reading and audio-visual materials in class. Through exposure to these authentic materials, students will further build their vocabulary and increase their comprehension of the target language. In addition the course will help students to gain insights about Chinese society and culture. Prerequisite: CHI 401 or equivalent.

CHI 600 Graduate Readings In Chinese (2-4)
Prepares students pursuing advanced degrees to read Chinese material in their own fields.

CLASSICS COURSES (CLS-Arts and Science)

CLS 101 Greek Civilization in its Mediterranean Context (3) MPF, MPT
Exploration of ancient Greek civilization, from pre-Homeric to Hellenistic times, presented within a broad framework of cultures with which Greece interacted in the Mediterranean basin. Various aspects of Greek civilization are highlighted including history, politics, economics, society, art, science, philosophy, and literature. IIB, H, CAS-B-HST.

CLS 102 Roman Civilization (3) MPF, MPT
Exploration of the legacy of ancient Roman civilization from its legendary beginning through the Republic to the Empire at its greatest extent. Various aspects of Roman civilization highlight the Roman experience including history, literature, philosophy, political and social institutions, religion, art, and the unique ability of Rome to assimilate Greek and other cultures. IIB, H. CAS-B-HST.

CLS 121 Introduction to Classical Mythology (3) MPF, MPT
Introduction to Greek mythology. Presentation, explanation, and interpretation of myths within representations of mythology, as well as comparative study of non-Greco-Roman myth. IIB, H. CAS-B-LIT.

Advanced Classics Courses

Note: Consult the MP Thematic Sequence descriptions for prerequisites and appropriate courses for fulfilling that requirement.

CLS 210A Classical Antiquity Through a Lens (3)
An introduction to filmic projections of classical myths and historical crises. This course aims at heightening students' awareness of the ways in which films construct our images of classical antiquity in the service of contemporary ideological agendas.

CLS 210R Race and Ethnicity in Antiquity (3) MPT
Relies on a variety of primary evidence to study how the Greeks and Romans defined race and ethnicity and how they defined themselves as individual peoples when they confronted cultures and peoples distinctly different from themselves. Examination of

the relationship between current theories of race and ethnicity and the theories and practices of the Greeks and Romans. Cross-listed with BWS 210R.

CLS 211 Greek and Roman Epic (3) MPT
Study of the epic as genre including examination of conventions and techniques of oral and written epic, a discussion of the kind of society which produces such a work, and a study of the epic hero. Works of Homer and Vergil will be read supplemented by readings from other ancient and post-classical authors. CAS-B-LIT.

CLS 212 Greek and Roman Tragedy (3) MPT
Study of the origin and development of Greek drama will highlight unique aspects of its fifth century form and dramatic presentation while exploring the reasons for perennial relevance of the extant plays. Selected dramas by Aeschylus, Sophocles, and Euripides supplemented with some comparative material from Roman post-classical drama. CAS-B-LIT.

CLS 213 Greek and Roman Comedy (3) MPT
Examination of the origin and development of comedy, the particularities of ancient dramatic presentation, and the changing role of comedy in ancient society. Readings from plays of Aristophanes, Menander, Plautus, and Terence supplemented by some comparative material from postclassical drama. CAS-B-LIT

CLS 214 Russian Reception of Classical Culture (3)
Introduces students to the study of the modern reception of antiquity, focusing mainly on the way Russian literature received, responded to, and resisted the Greco-Roman legacy. Emphasis on classical myths and literary figures of antiquity that were the most influential for the Russian poetic imagination. Readings include Lomonosov, Pushkin, Boris Pasternak, Tsvetaeva and Brodsky. All readings in English. Cross-listed with ENG/RUS214. CAS-B-LIT.

CLS 215 Roman Historians (3) MPT
Why and how the Romans wrote history, nature of Roman historical writing, and development of Roman historiography are essential topics. Reading and analysis of Livy, Sallust, Tacitus, and Suetonius. Supplementary reading in the background of the Roman Republic and Empire. CAS-B.

CLS 216 Roman Cities (3)
This visually-oriented course examines four ancient cities, Rome, Ostia, Herculaneum, and Pompeii. Intends to recreate, as much as possible, the experience of actually visiting these cities in order to determine what the physical plant of Roman cities reveals about the civilization of the Romans.

CLS 232 Great Discoveries of Archaeology (3)
Introductory survey of monumental discoveries (ancient and modern) that have changed and influenced the course of history, intellectual thought, and artistic taste and enlarged and transformed our knowledge of the ancient world. Specific discoveries from selected archaeological sites direct the focus of the course: e.g. Egypt, Troy, Crete, Athena, Delphi, Pompeii, Herculaneum, Rome.

CLS 235 Women in Antiquity (3) MPT
Study of the status of women in the Greek and Roman world from Bronze age through early centuries of Christianity conducted in light of literary, artistic, and archaeological evidence in order to increase knowledge and understanding of Greek and Roman family and social life and of our own society as well. Cross-listed with WMS 235.

CLS 244 Introduction to Egyptian Art and Archaeology (3) MPT
Introduces students to the art and archaeology of Pharoanic Egypt, including many of the most important monuments: funerary architecture, temples, sculpture, wall paintings, tomb furnishings, and other arts. The course also establishes an outline of Egyptian history and geography, with an emphasis on Egypt and its place in the larger worlds of Africa and the Mediterranean.

CLS 309 Growing up in Greece and Rome (3)
Examines literary and nonliterary evidence for the entire life course of men and women in Greece and Rome. Seeks to distinguish the stages of life of actual Greeks and Romans (necessarily primarily upper class citizens) and also examines continuities and discontinuities between Classical and post-Classical cultures.

CLS 310 Advanced Topics in Classics (1-3; maximum 6)
Examination of an author, work, topic, or new critical perspective on classical civilization not usually given substantial treatment in regular course offerings. May be repeated once if topic changes. Recent offerings include:

CLS 310E Conflict in Greco-Roman Egypt (3) MPT
Explores life in ancient Egypt as it experienced first Greek, then Roman, domination. Considers themes ranging from the role of the imperial court to the social differences that structured life and the colonial administration of Egypt, including gender, ethnicity, economic status, literacy, and religious identity. Also highlights the shifting role of the new capital, Alexandria. Cross-listed with BWS 380I.

CLS 310I Ancient Imperialism (3) MPT
Exploration of the range of ancient Mediterranean empires from the earliest Mesopotamian empires through the fall of the Roman Empire. Critical examination of the various accounts modern anthropologists, historians, and political scientists offer to explain the causes of their rise and fall, along with the defenses offered by imperialists and the grounds for opposition from those who resisted. Exploration of various distinctions offered between ancient and modern forms of imperialism.

CLS 316 Greek and Roman Lyric Poetry (3) MPT
Examination of tone, form, and content of lyric poetry. Beginning with creations of the Greek Lyric Age, course explores Roman response to the whole range of Greek lyric achievements of Catullus, Horace, and Ovid in creating distinctly Roman themes and style. CAS-B-LIT.

CLS 317 Greek and Roman Philosophical Writers (3) MPT
An examination of the philosophy, personalities, and backgrounds of the principal philosophers. Discussions of problems of being and becoming, monism and pluralism, knowledge, value and society. Readings from the pre- Socratics, Plato, Aristotle, Epicurus, Lucretius, Seneca, and Boethius. Prerequisite: CLS 121. CAS-B-LIT. Offered infrequently.

CLS 321 Justice and the Law in Antiquity (3) MPT
History and development of constitutional and civil law in antiquity with special emphasis on Roman law. Examines ancient jurisprudence and development of the concept of justice. Some comparisons made between ancient and modern legal systems.

CLS 322 Growing Old in Greece and Rome: The Sphinx's Riddle (3) MPT
Looks at literary and nonliterary evidence to study old age in Greece and Rome as part of the entire life span. Seeks to distinguish between literary representations and the actual experience of old people and examine continuities between classical and postclassical cultures. CAS-B-LIT.

CLS 331 From Epic to Romance (3) MPT
Critical survey of novelistic narrative literature in the ancient world, focusing on the so-called ancient novels or ancient romances written in the late hellenistic and imperial period. Begins with the epic ancestors of these works and goes on to modern versions of romance in print and film. CAS-B-LIT.

CLS 332 Classical Mythology and the Arts (3)
Designed to explore the role of arts in the classical world in transmitting the narratives and values inherent in Greek and Roman myths. Will consist of case studies in the use of myth from public and private spheres: the Parthenon sculptures, Herakles and Athenian tyrants of the 6th century, the Niobids, Danaids and Augustan Rome, the reliefs from the Roman amphitheater at Capua, etc. Major topics will be subject selection, composition, context and narrative moment.

CLS 333 The Greeks in the Near East and Central Asia (3)
Studies the impact and the character of intercultural exchange between the Greeks and their eastern neighbors, from Anatolia to Central Asia, paying special attention to the representations of those neighbors in literature. Looks at examples of ¿orientalist¿ discourse in epic, tragedy, history, geography, poetry, and the novel, providing an opportunity to reflect on contemporary east/west conflicts.

CLS 334 Egypt: Greco-Roman History and Fiction (3) MPT
Studies Greek and Roman literary texts that represent Egypt: its geography, its customs, its history and its religion, investigating how representations of the Other function to confirm or construct one's own identity, and how those constructions function in various types of literary discourse. Studies numerous genres of writing from antiquity (history, philosophy, drama, poetry, epic, Roman satire, and the novel) to explore the way representations come to substitute for reality, and the consequences of such substitutions.

CLS 333 The Greeks in the Near East and Central Asia (3)
Studies the impact and the character of intercultural exchange between the Greeks and their eastern neighbors, from Anatolia to

Central Asia, paying special attention to the representations of those neighbors in literature. Looks at examples of ¿orientalist¿ discourse in epic, tragedy, history, geography, poetry, and the novel, providing an opportunity to reflect on contemporary east/west conflicts.

CLS 401 The Age of Pericles (3) MPC
Comprehensive study of Athenian civilization from 480 to 429 BC. This is neither a history nor a literature course, but a search for global understanding; attempts to look at a complex period from a variety of angles (political, social, literary, artistic, intellectual) and to find a basis for relating its specific subject matter to other bodies of knowledge and other modes of inquiry. Prerequisite: permission of instructor.

CLS 402 The Age of Augustus (3) MPC
Comprehensive study of Roman civilization from 63 BC to AD 14, a period that is perhaps the most significant and exciting era in Roman civilization, the culmination of seven centuries of Roman growth and expansion and the prediction of the five centuries of Rome's future. Focus is the concept of leadership in a Roman society that was being transformed from a republic to an empire. Emphasis is not only on the ways in which a leader shapes a society but also on the ways in which a leader is shaped by a many-faceted society. Prerequisite: permission of instructor.

CLS 480 Independent Reading for Departmental Honors (3)
Individually arranged program of study concentrating on a particular author, major work, or significant aspect of ancient culture and society, normally culminating in a substantial research essay and comprehensive examination. Prerequisite: superior performance in course work within department as well as good general academic standing.

CLS 630 Studies in Classical Humanities (1-4; maximum 12)
Directed study in special areas and disciplines which overlap with classics. Prerequisite: graduate standing and permission of department chair and instructor required.

COMBINED FINE ARTS COURSES (CFA-Fine Arts)

CFA 111 Innovation, Creativity and Design Thinking (3)
This course will explore the roots of original thought and its role in the evolution of different areas of human endeavor. Students will explore the many facets of creativity and innovation, which are purely human traits at the heart of our ability to grow, change and adapt as individuals, and ultimately to survive as a species. The course will present scientific and scholarly ways of understanding creativity, but will also engage students in a series of exercises to experience processes through a diverse range of media and project types. Learning the roles and processes of innovation and design thinking will be central to this exploration. Team work, problem-solving and leadership skills will also be addressed, and students will both self-author and collaboratively author original concepts.

CFA 182 Experiencing the Arts (1)
Introduction to various arts. Attendance at art events required.

CFA 201 Introduction to Arts Management (3)
Introduces the field of arts management through an investigation of the major functional management areas relevant to the arts and the issues facing those areas.

CFA 340 Internship (1-20)
Structured field experience with a professional arts organization. Pre- and post-seminars required. Must be pre-approved by instructor before registering. Credit/No Credit Only. Prerequisite: CFA 201.

CFA 410 Advanced Topics in Arts Management (3)
This course focuses on current issues in arts management in preparation for a professional career and/or graduate work. A final thesis or project is part of this course that looks at ethics, entrepreneurship and leadership, arts policies and funding, audience development in a pluralistic society, and arts in an "experience" economy and technological society. Prerequisites: CFA 182, CFA 201, CFA 340.

COMMUNICATION COURSES (COM-Arts and Science)

Note: Courses are offered in three areas: speech communication, strategic communication, and mass communication.

Note: COM 143 is a prerequisite for all mass communication courses; COM 146 is a prerequisite for all production and writing courses.

COM 132 Forensics (1-2; maximum 6)
Practical experience in intercollegiate forensics; requires travel to intercollegiate forensics tournaments; may not be counted for credit toward major in communication. Course may be repeated for up to six hours. Permission of instructor is required.

COM 134 Intro to Speech Communication (3) MPF
Introduction to major theories and issues of communication, with emphasis on how communication functions in a variety of contexts. Credit not granted to students who have earned credit in COM 136. IIC.

COM 135 Introduction to Public Expression and Critical Inquiry (3) MPF, MPT
Develops fundamentals of analyzing, organizing, adapting, and delivering ideas effectively in public contexts. Special emphasis placed upon informative and persuasive discourse. IIB. CAS-B.

COM 136 Introduction to Interpersonal Communication (3) MPF, MPT
Introduction to major theories and empirical research regarding the role of interpersonal communication and related personal, contextual, and cultural variables in the development of various types of dyadic relationships. IIC. CAS-C. (Non-majors only. Does not count toward any communication degree.) Credit not granted to students who have earned credit in COM 134.

COM 143 Introduction to Mass Communication (3) MPF, MPT
Introduction to major mass communication theories as a context to examining some major issues surrounding mass media in American society. IIC. CAS-C.

COM 146 Media Aesthetics (3)
This course is an introduction to media aesthetics. Students will develop an awareness of the artistic choices necessary for good media production and will be introduced to design elements and techniques available for use. Prerequisite: majors or permission of instructor. Cross-listed with FST 146.

COM 167 Practicum in Electronic Media Production (1)
Practicum experience to expose students considering a major in mass communication to the production process. Student participates in a minimum number of productions of media materials and must attend the pre- and postproduction discussion sessions. Prerequisite: written permission of the instructor. Offered only credit/no-credit. Students who must enroll for credit should petition the assistant chair for mass communication.

COM 177 Independent Study (1-5 per semester; no more than 10 per year)
Must be approved by instructor, area approvals committee, and department chair.

COM 205 American Film as Communication (3) MPT
Introduction to the study of communication via American motion pictures. Focuses on analysis of technical and narrative elements found in motion pictures. Screening of films provides backdrop for discussing visual impact of motion pictures as significant form of mass communication. Cross-listed with FST 205.

COM 206 Diversity and Culture in American Film (3) MPF
Analysis of the representation of diversity and culture as portrayed in American motion pictures. Cross-listed with FST 206 and IDS 206. IIB, Cul.

COM 211 Introduction to Electronic Media Production (4) MPT
Introduction to electronic media production. Students become acquainted with fundamentals and techniques of sound production and elements involved in the design and production of video messages. Prerequisite: COM 146, major status, or permission of instructor.

COM 215 Electronic Media History (3) MPT
Survey of electronic media history. Beginning with early experiments in electromagnetism, students examine development and impact of electronic media in the United States and

international settings. Prerequisite: major status or permission of instructor.

COM 231 Small Group Communication (3)
Theoretical issues that affect communication between members of work teams, discussion groups, and decision-making bodies. Students study these theories and related research studies and work as members of student teams to analyze critically both the theoretical and practical implications of the theories and research studies.

COM 234 Fundamentals of Interviewing (3)
Theory and techniques pertinent to the interview examined with emphasis on skills associated with such contexts as information-gathering, employment, appraisal, and persuasive interviews. Offered infrequently.

COM 239 Theories of Communication (3) MPT
Introduction to communication and rhetorical theories. Students completing this course should be able to demonstrate competence in understanding the various theories discussed and see how they fit in the field of communication.

COM 247 Rhetoric of Disability Rights (3) MPF
Students identify the Disability Rights Movement, investigate movement rhetoric and theory, practice criticism of popular texts that influence ableism, and engage controversial issues debated by disability rights activists. Offered infrequently. Cross-listed with DST 247. IIB, CUL.

COM 257 Scriptwriting for Electronic Media (3)
Basic course in writing for radio and television, and new media, with emphasis on scriptwriting for feature film and narrative for television; treatment of documentary subjects; introduction to narrative forms in new media. Prerequisite: COM 146, or permission of instructor. Cross-listed with ENG 257.

COM 258 Copywriting for Electronic Media (3)
Basic course in writing for radio and television, and new media with emphasis on commercial, noncommercial, and promotional copywriting. Prerequisite: COM 146, or permission of instructor. Cross-listed with ENG 258.

COM 259 Introduction to Strategic Communication and Public Relations (3)
Introduction to the use of communication to influence societal issues and the field of public relations. Focuses on the history and development of the discipline and analyzes the influence of strategic communication on society. Covers theory and research foundations as well as broad contexts of application such as social activists, corporate stakeholders, media, community, and political groups.

COM 262 Empirical Research Methods (3)
Examination and application of concepts and contexts of contemporary communication research and methods of research that facilitate investigation of human communication processes. Emphasizes experience in data collection and using the computer as a research tool. Prerequisite: DSC 205 or STA 261 or STA 301.

COM 267 Practicum in Electronic Media Production II (1-3)
Practicum experience designed to expose students majoring in mass communication to the production process. Student participates in a minimum number of productions and must attend pre- and post-production sessions. Prerequisite: COM 211, major status, or written permission of instructor.

COM 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3) MPF
Examines both the treatment of gay, lesbian, bisexual, and transgendered persons by the mass media and the voices of the gay, lesbian, bisexual, and transgendered persons as producers of media messages and as activists who influence media messages. The Kinsey Report, the Stonewall Riots, and the AIDS epidemic serve as major culture milestones for tracing the evolving portrayals of diverse sexualities. IIB, Cul. Cross-listed with FST 281.

COM 282 Sexualities and Film (3)
An exploration of film representations of diverse sexualities (e.g., gay, lesbian, bisexual, and transgendered) from the silent era to the present. Cross-listed with FST 282.

COM 301 Journalism Law and Ethics (3)
Focuses on statutory and common law limitations on freedom of the press in America, and the legislative and judicial rationales for them. Considers ethical theories and their application to situations that journalists commonly encounter. Cross-listed with JRN 301.

COM 311 Television Production and Direction: Field Production (3)
Experience in production and direction of television formats with emphasis on applied media aesthetics. Field production theories and exercises. Prerequisite: COM 211, major status, or permission of instructor.

COM 312 Television Production and Direction: Studio Production (3)
Experience in the production and direction of television formats with emphasis on applied media aesthetics. Studio production theories and exercises. Prerequisite: COM 211, major status, or permission of instructor.

COM 313 Advanced Electronic Journalism: Audio (3)
Applies audio production theories and techniques to gathering, editing, and presenting long-form and short-form news stories. Prerequisite: COM 211 and JRN 202, major status, or permission of instructor. Cross-listed with JRN 313.

COM 314 Advanced Electronic Journalism: Video (3)
Emphasizes application of video to all phases of the journalistic process, including news gathering, writing, and presentation. Prerequisite: COM 211 and JRN 202, major status, or permission of instructor. Cross-listed with JRN 314.

COM 332 Argumentation and Debate (3) MPT
Study of the theory and practice of constructing, analyzing, and evaluating arguments. Consideration given to various debate formats as models of argumentation.

COM 335 Public Discourse in Western Thought (3) MPT
Examines traditional public discourse from political, social, and legal spheres as well as social movements and minority rhetoric. Focuses on the interplay of ideas contributing to social stability and change.

COM 336 Advanced Interpersonal Communication (3) MPT
In-depth examination of interpersonal communication theories and research. Particular emphasis placed on the role of communication through the life cycle of relationships, from their initiation and maintenance to their deterioration or escalation. Prerequisite: COM 134 or COM 136 or permission of instructor. CAS-C.

COM 339 Introduction to Organizational Communication (3)
Focuses on how communication affects organizational systems and performance. Introduces theories and issues central to the study of organizational communication. Emphasis given to the interrelationship of task performance, human interaction, and the improvement of communication within organizations.

COM 340 Internship (1-16)
Applied experience in communication for qualified students meeting departmental and area requirements. See departmental area of major program for specific application information.

COM 341 Methods of Rhetorical Criticism (3)
Examination of various methods related to the description, analysis, and interpretation of communicative acts. Rhetorical approaches treated include neo-Aristotelian, dramatistic, fantasy theme, generic, and narrative methods. Prerequisite: COM 239 or permission of instructor. Offered infrequently.

COM 343 Practicum in Advanced Sound Production (2)
Experience in production of various radio program formats including dramatic documentary, cultural affairs, and public affairs programming. Prerequisite: COM 211, major status, or permission of instructor.

COM 353 Mass Media Audience Analysis (3)
Introduction to audience analysis including review of services provided by media research organizations and procedures of applied survey research for the media. Prerequisite major status or permission of instructor.

COM 354 Media and Society (3) MPT
Survey of the place of electronic media in society. Topics covered include media and culture; media economics, industries, and institutions; politics of media content; media and social representation. Prerequisite: major status or permission of instructor.

COM 355 Media Technology (3)
Focuses on the relationships among technology, society, and communications (mass media and information systems), exploring key historical, cultural, and political/economic issues raised by new communication technologies. Prerequisite: major status or permission of instructor. Offered infrequently.

COM 359 Strategic Communication Planning (3)
Introduction to the study of public relations and its influence on society. Analysis of the communication functions, theories, and processes of public relations and the publics involved in societal, political, business, and nonprofit contexts. Prerequisite: COM 259.

COM 367 Practicum in Electronic Media Production III (1-3)
Practicum experience designed to expose students majoring in mass communication to the production process. The student participates in a minimum number of productions and must attend the pre- and post-production sessions. Prerequisite: COM 311 or 312, major status, or written permission of instructor.

COM 377 Independent Study (1-5 per semester; no more than 10 per year)
Must be approved by instructor, Area Approvals Committee, and department chair. Prerequisite: major status.

COM 378 Media Illusions: Creations of "The Disabled" Identity (3)
Provides a critical analysis of past and present media constructions of persons with disabilities. Through exploring theory and research from diverse disciplines (communication, sociology, gerontology, educational psychology and others), students explore how perceptions of persons with disability are formed and analyze how the media is implicated in creating, distorting, and reflecting stereotypical and fictionalized images of disability. The course analyzes how these images shape public perception and reproduce the unequal power and privilege relationships that maintain the status quo while providing resources and techniques for the provision of alternative images of disability in various media genres. Cross-listed with DST/EDP/SOC/WMS 378.

COM 389 Great Issues in American History: Rhetoric and Reality (3) MPT
Examines historical evolution of enduring issues in the development of the U.S., primarily by examining the way these issues have been argued at various times in our national history. Issues treated include the nature of American government, rights of blacks, rights of women, and warmaking rights. Cross-listed with HST 389H. Offered infrequently.

COM 411 Interactive Media Studies Practicum (4) MPC
Examines the tools and methodologies involved in creating and managing the production of new media. Students will study different development models in a real-world setting and work with a client in business or industry to consultatively produce an interactive solution. This course particularly focuses on two aspects of the client project: (1) the management of new media development, and (2) the processes that best develop the synergy of an interdisciplinary team working toward a shared goal and the tools of development. It will also emphasize project planning and management. While it may be the case that programmers need to know coding and graphic designers need to know vector graphics, the successful manager will know something about all of these tools, about how they work together, and about how to specialize in one of them. Cross-listed with IMS 440.

COM 414 Senior Project in Communication (4; maximum 8) MPC
In-depth personal investigation of a specific aspect of communication. This may be performing original research, comprehensive review of extant literature, internship, and/or operating as a teaching or research assistant in communication. Students work closely with a faculty adviser/mentor and meet with other students to discuss progress, problems, issues, and integrate ideas. Students develop a written report of the results of their investigation and give an oral presentation in a public forum. Prerequisite: senior standing, appropriate course work in communication (at least nine hours, to include a Thematic Sequence in the area) and/or other relevant areas of study, and permission of the faculty adviser/mentor.

COM 415 Practicum in Television Journalism (4) MPC
Practicum experience in which students write, report, and produce a regularly scheduled television newscast aired on Oxford's cable television system. Participate in and evaluate all aspects of television news gathering and reporting process. Prerequisite: COM 211, JRN 202, and either COM 314 or applied journalism experience. Cross-listed with JRN 415.

COM 417 Methods of Teaching Speech Communication (3)
Methods of managing competitive debate and individual events programs. Covers theories and techniques of coaching debate and individual events, tournament administration, and professional responsibilities of the forensic educator. Offered infrequently.

COM 421 Advanced Creative Writing: Screenwriting Workshop (3)
Advanced workshop in feature film screenwriting. Analysis of examples of contemporary screenplays, with emphasis on the craft of writing screenplays. Class discussion and sharing of student-written screenplays. Cross-listed with ENG 422. Prerequisite(s): Two of the following: COM 257, ENG 320, ENG 420.

COM 426/526 Inside Washington (8)
Intensive study of the contemporary Washington community - government institutions, public officials, journalists, consultants, staff, and interest groups - through reading, lecture, on-site observations, expert presentations, discussion, research, writing, and internships. Program conducted in Washington, DC. Prerequisite: Permission of instructor. Cross-listed with JRN 426/526 and POL 426/526.

COM 427 Inside Washington Semester Experience (4)
Intensive study of the contemporary Washington community-government institutions, public officials, journalists, consultants, staff, and interest groups-through reading, lecture, onsite observations, expert presentations, discussion, research, and writing. Program conducted in Washington. Prerequisites(s): Permission of instructor. Concurrent course(s): COM/JRN/POL 453; COM/POL/JRN 377 or 477; COM/JRN/POL 340.

COM 428 Communication in Conflict Management (3) MPT
Examination of the role of communication in the management of conflict in various contexts. Stresses relevant theories and research as a basis for analyzing and understanding diverse types of conflict.

COM 431 Persuasion Theory and Research (3)
Examines the formation, change, and functions of attitudes and the link between attitudes and behavior. Emphasis placed on understanding relevant theory and research.

COM 434 Nonverbal Communication (3) MPT
Examination of theories and research regarding the nature and functions of nonverbal communication. Emphasizes the roles of context, individual and cultural differences, and accompanying verbal messages in interpreting nonverbal behavior.

COM 436 Intercultural Communication (3)
Examines similarities and differences among cultures and subcultures with regard to norms, values, and practices in verbal and nonverbal communication. Barriers, such as prejudice and ethnocentrism, to effective intercultural communication addressed.

COM 437 Advocacy in Contemporary America (3) MPC
Analyzes post-World War II public persuasion, including messages from a broad variety of media contexts.

COM 438 Political Communication (3) MPT
Study of communication methods used in political campaigns. Special consideration of such aspects of political communication as analyzing audiences, structuring messages, developing stock speeches, political debating, selecting media, and interpersonal communication in political campaigns.

COM 439 Advanced Organizational Communication (3) MPC
Interpersonal, small group, and public communication are discussed within organizational context. The effects of personal and organizational values and behavior on communication and organizational activity are linked to the broader community. Course includes class discussion, team work, student presentations, and writing projects. Prerequisite: COM 339 or permission of instructor.

COM 441/541 Rhetoric of Religion (3)
Examines the persuasive symbolic functions surrounding religion. American religious practices are the primary focus of study though ramifications in the international sphere are included. The unique interactions of religion within America's public sphere are the primary area of focus and include religions such as Islam, Judaism, Christianity and Native American Religion. Offered infrequently.

COM 443/543 Mass Media Management (3)
Intensive study of the management process as applied to mass media industries. Prerequisite major status or permission of instructor.

COM 445/545 Seminar in Electronic Media Policy and Regulations (3) MPC
Study of development and implementation of federal and state law and regulations and their effect on American mass media. Emphasis on regulatory process, judicial review, and political process as they affect the Federal Communications Commission and other government agencies. Prerequisite: major status or permission of instructor.

COM 446 Global Media (3)
Survey of international communication systems, with emphasis on comparative analysis based on current typologies, and economic, social, political, and regulatory variables. Prerequisite: major status or permission of instructor.

COM 447 Mass Media Criticism (3) MPT
Examination of the performance of mass media, especially television, in current social settings. Topics include news and entertainment programming and relationship between media industry and its products. Prerequisite: major status or permission of instructor.

COM 450 Topics in Communication (3; maximum 9 if content changes)
Study or research of issues and problems associated with communication under the guidance of a faculty member of the department. Prerequisite: major status or permission of instructor.

COM 454 The Washington Community (3 to 4)
This course focuses on the Washington, D.C., as a complex political-social system that is both the seat of American democracy and a metropolis plagued with typical urban problems. In this class, students will complement their study of the formal political and media systems in the "Inside Washington" course by focusing on the development and behavior of constituent communities within the city of Washington.

COM 459 Advanced Public Relations (3) MPC
This seminar course emphasizes public relations case study analysis. Students critically analyze issues drawn from social, political, business, and nonprofit cases. Student teams apply principles learned in this course and prior courses to work with clients using research and strategic analysis to create solutions to public relations challenges. Course format involves discussion, team work, and extensive written work. Prerequisite: COM 359 and 431 or 437, or permission of instructor.

COM 461 Gender and Media (3) MPT
Examines how media help to shape notions of gender in society, how gender ideologies influence mass media perspectives and practices, and how mediated representations may reinforce or challenge social hierarchies based in differences of gender, race, ethnicity, class and sexual orientation. Cross-listed with WMS 461.

COM 467 Practicum in Electronic Media Production IV (4)
Practicum experience in which students research topics for productions, prepare and present treatments and scripts and produce and direct original media work, including drama and documentary. Prerequisite(s): COM 211 and 311 or permission of instructor.

COM 469 Public Relations Practicum (1-2; maximum 8)
Practical experience in public relations work. Cannot count for credit toward major in communication. Prerequisite: PRSSA membership and permission of instructor.

COM 477 Independent Study (1-5 per semester; no more than 10 per year)
Must be approved by instructor, area approvals committee, and department chair. Prerequisite: major status.

COM 494 Disability in Global and Local Contexts (3) MPC
Examines contemporary disability issues and policies and the lived experiences of persons with disabilities in international and local contexts, with emphasis on understanding disability within particular communities- both locally and in other countries- and on learning multiple research methods. Cross-listed with ENG/SPE/DST/SOC 494 and EDP 489. Prerequisite(s): Permission of instructor.

COM 611 Social Scientific Research Methods (3)
Examination of contemporary research designs in communication with emphasis on the social scientific process of hypothesis derivation and testing.

COM 612 Critical/Cultural Research Methods (3)
Investigates the forms, politics, and uses of texts, allowing students to develop skills for applying critical methods, reading critical theory, engaging in seminar interaction, framing arguments, and conducting research.

COM 613 Seminar in Communication Theories (3)
Theories developed in communication, theories from other disciplines that have influenced the development of theory in communication, and samples of research generated by these theories are read and discussed. Selected theories generated within the traditional, human action systems, and critical perspectives are examined.

COM 614 Seminar in Media Studies (3)
Introduction to media theory and contemporary media scholarship.

COM 615 Historical and Critical Methods of Research in Public Address (3)
Examination of critical methodologies for evaluating rhetorical artifacts. Methods for evaluating textural accuracy, effectiveness, social significance, reasoning, and style. Practice in rhetorical criticism.

COM 619 Organizational Communication Theory and Research (3)
Survey of theoretical and empirical literature dealing with human communication behavior in complex organizations. Emphasis placed on development of a conceptual framework for analyzing message systems.

COM 632 Seminar in Advocacy in Contemporary America (3)
Analyzes post-World War II public persuasion, including messages from a broad variety of media contexts.

COM 633 Persuasion Theory and Research (3)
Analysis of persuasion process through examination of relevant theory and empirical research. Devotes attention to experimental speech communication research in persuasion and culminates in a critical appraisal of current research trends.

COM 634 Interpersonal Communication Theory and Research (3)
Focuses on concepts, theories, and research regarding the communication behavior of people (primarily in dyads) in various relational contexts.

COM 636 Rhetorical Seminar (3; maximum 6)
Provides advanced, in-depth study of topics within rhetorical theory and criticism. Topics vary. Prior course work in rhetoric recommended.

COM 637 Contemporary Theories of Rhetoric (3)
Survey of forces and ideas shaping rhetorical theory after 1965. May include scholarship of Burke, Foucault, Habermas, and Grassi.

COM 638 Small Group Communication Theory and Research (3)
Focuses on theory, research, and methods involved in the study of group communication.

COM 639 Organizational Communication: Diagnosis and Intervention (3)
Seminar on theoretical and applied approaches to communication consulting in complex organizations. Emphasis placed on developing intervention strategies for making organizational communication systems more effective. Prerequisite: COM 619.

COM 648 Seminar in Political Communication (3)
Surveys theory and research on political communication. Topics covered in this course include: media in politics, international political communication, political ethics, past political scandals, pop culture and politics, political crisis communication and political campaigns.

COM 650 Topics in Communication (1-3; maximum 6)
Intensive study of a selected topic in communication. Emphasis on in-depth research, analysis, and application. Prerequisite: permission of instructor.

COM 653 Seminar: Issues in Media Management and Economics (3)
Examines newspapers, magazines, film, radio, television, cable, and emerging electronic media as business organizations. Basic principles of economics, leadership, and management reviewed and applied to various media industries and structures. Issues such as media gigantism, corporate downsizing, mergers and acquisitions, labor organization, job satisfaction, and the economic impact of regulation explored, with particular attention to the social impact of media business dynamics.

COM 655 Seminar in Free Speech and Press (3)
Examination of theoretical and applied issues implicit in the First Amendment's guarantee of freedom of the press. Consideration of the legal and ethical aspects of areas including defamation, invasion of privacy, media coverage of the judicial system, national security and the press, and obscenity.

COM 656 Seminar in Global Media (3)
In-depth study of international mass media systems, the international law and regulation that affects them, and major issues that shape the international flow of information.

COM 658 Colloquium in Mass Communication (1; maximum 4)
Discussion of current research in mass communication being conducted by faculty, graduate students, and guest presenters.

COM 659 Public Relations: Theory and Research (3)
Survey of theoretical and research-based literature dealing with public relations and central issues in the field. Emphasis placed on exploring how organizations use communication to negotiate their relationship with key publics and their role in society.

COM 660 Independent Project (1-4; maximum 8)
May be repeated.

COM 681 Seminar: Gay, Lesbian, Bisexual, Transgendered Persons & The Media (3)
Examines both the treatment of gay, lesbian, bisexual, and transgendered persons by the mass media and the voices of gay, lesbian, bisexual, and transgendered persons as producers of media messages and as activists who influence media messages.

COM 682 Feminist Media Theory and Practice (3)
Offers an overview of feminist theories of the media and feminist media practices over the past three decades, but focuses on recent developments including transnational feminist approaches to media and feminist approaches to new information technologies.

COM 696 Teaching Practicum: Topics (1-2)
Provides training and practical experience in a variety of communication education areas. Specific topics vary by section and can include a range of topics such as forensics coaching, public relations practicums, and other educational topics. Credit does not count toward speech communication graduate degree.

COM 697 Teaching Essentials of Speech Communication (2; maximum 8)
Deals with practical problems and challenges of teaching basic speech communication courses. Required of all graduate teaching assistants teaching the basic course. Credit does not count toward a graduate degree.

COM 698 Introduction to Communication (2)
Theoretical foundations and practical applications for instruction at college level. Prerequisite for teaching COM 135 with graduate assistantship. Credit does not count toward a graduate degree. Summer only.

COM 700 Research for Master's Thesis (1 to 12)
Students pursuing the thesis option may register for these hours while working on a thesis; however, these hours are taken typically during the second year of the program.

COM 711 Research (1-12; minimum 6, maximum 12)

COMPARATIVE MED STUDIES (CMS-Arts and Science)

Note: This program is in the development stage. Foundational core courses will be offered starting in the Fall of 2010. Curriculum details will be completed during the 2010-2011 academic year.

CMS 201 Introduction to Comparative Media Studies (4)
Drawing upon examples from audio recordings, print media, film, television, and digitalmodes of communication, the course introduces students to the interdisciplinary field of Media Studies and its various theoretical approaches and methodologies. One hour of the course is designated as a lab hour to allow for structured opportunities for student practice of media creation.

CMS 301 Introduction to Comparative Approaches (3)
Introduces students to aesthetic, cultural, historical, political economic, and
media effects approaches in media studies, and describes how these various
approaches pose problems related to the interrelationships between media texts,
audiences, technologies and industries, and the wider social worlds in which they are embedded. Students are exposed to the basic methodologies associated with these approaches - semiotics, ethnography, historical method, grounded theory and
quantitative analysis - and learn how these methods are used to investigate questions about human engagements with media.

COMPUTER AND INFORMATION TECHNOLOGY COURSES (CIT-Engineering and Applied Science)

CIT 101 Computing Skills (1)
Hands-on introduction to the use of current popular software and information retrieval tools. Self-paced and traditional instruction methods are used. A headnote specifies the instructional method and particular software tool. Credit/no credit only. Not open to CSE majors.

101D Computing Skills: Database
101G Computing Skills: Presentation Graphics/Multimedia
101H Computing Skills: World Wide Web, Publishing, Home Page Construction
101I Computing Skills: Using the Internet
101O Computing Skills: Getting Started
101P Computing Skills: Desktop Publishing
101R Computing Skills: Beyond the Internet – Electronic Search Skills
101W Computing Skills: Word Processing
Note: a maximum of nine credit hours of CSE/CIT 101, CSE 141, CSE/CIT 154, and MIS 185 can be used toward degree requirements. A maximum of three credit hours will be awarded among CIT 101W, 101S, and 101D, and CIT 154.

CIT 154 Personal Computer Concepts and Applications (3)
Survey course for students who wish to become computer literate and make practical use of microcomputers. Survey of various hardware components and software systems used by current microcomputers. Includes hands-on experience with various software packages including word processing, spreadsheet, database management, and graphics. Not open to CSE baccalaureate majors. Credit not awarded for both CSE 141 and CIT 154. Offered only on regional campuses.

CIT 157 Foundations of Information Technology I (3)
An introduction to the fundamental concepts of information technology. Includes IT history, applications, and current practices. Uses current web design technologies. Investigates computing systems architecture, operating systems, and their relationship to IT. Uses current PC operating systems including Microsoft Windows and Linux. Describes fundamental network communication tools and protocols.

CIT 158 Foundations of Information Technology II (3)
An introduction to IT applications including fundamental concepts of programming design, implementation, and integration. Topics include problem-solving techniques, algorithm development, current design methodologies, programming paradigms, testing and debugging, data representation. Current issues and technologies will also be addressed. Prerequisite(s): MTH 101 or equivalent.

CIT 173 Multimedia Fundamentals (3)
An introduction to digital image creation, manipulation, and animation through the use of various editing tools. Students will understand the fundamentals of digital images, create and import digital images, create and export digital movies, use video editing software and address integration issues. Students will have hands-on experience with computer software packages. Prerequisite: CIT 154 or equivalent experience with MS Office.

CIT 187A Computer Training and Support: Web Sites (2)

CIT 214 Database Design and Development (3)
Practical and applied approach to database management design and development. Introduction to database planning, design and management, data modeling and representation, and fundamental concepts of database access. Includes study of the relational model and other models, database and Internet interaction, and study of commonly used database systems. Emphasis on applications of database querying, forms and reports, generic SQL (Structured Query Language), and VBA (Visual BASIC Applications). Will include hands-on experiences. Prerequisite: CIT 101D or CIT 154, or CSE 141, or BTE 181, or experience with databases. Offered only on regional campuses.

CIT 220 Professional Practice (0-2)
This course is designed for students who are participating in a co-op or internship work experience. It provides a structured, formal connection between the student's co-op/internship job and his/her academic program of study. Students will keep a portfolio of their

work experiences, meet periodically with their instructor and other students, and reflect on their experiences noting connections to their academic experiences. Both the instructor and the employer will evaluate each student. Cross-listed with ENT and CIT 220. Prerequisite: Permission of departmental internship coordinator. Offered Credit/No Credit only. Offered only on regional campuses.

CIT 253 Contemporary Programming Languages (3)
Presents syntax and semantics of a particular programming language currently popular in industrial or academic settings. Addresses fundamental program construction, good software design and programming style, and development of applications focused on the strengths and special features of the language. Covers fundamental and advanced topics in the language. Course may present languages such as C++ (in 253C), Perl (in 253P), and others as they may emerge. Prerequisite: CSE 163 or CSE 174, or permission of the instructor. Offered only on regional campuses.

CIT 262 Technology, Ethics, and Global Society (3) MPF
Inquiry into a wide range of information technology issues, from moral responsibilities affecting professionals to wider ethical concerns associated with information technology in day-to-day living. Topics include general aspects of ethics; common ethical theories; professional codes of ethics in IT; privacy, security and reliability in using computer systems and the internet; issues and responsibilities in internet usage; legal issues in IT; global perspectives of computing issues; and general problems related to ethical and responsible computing. Prerequisite(s): ENG 111, a minimum of 20 credit hours earned. IIB, IIC. Cross-listed with CSE 262.

CIT 263 Advanced Topics in Visual BASIC (3)
Topics include using multiple file formats including databases, creating menus, multiple form projects, using ActiveX controls, modules, executable files, VBScripting, and VBA. Work with mouse events and OLE. Additional concentration on debugging, error detection, and testing programs for robustness. Prerequisite: CSA 163 and MS Office experience. Offered only on regional campuses.

CIT 268 Introduction to Human-Computer Interaction (3)
Inquiry into a wide range of Human Computer Interaction (HCI) issues ranging from the understanding and advocacy of the user in the development of IT applications and systems, to the technical components of design. Topics include foundations of HCI, the nature of the HCI design process, technical aspects and limitations of selected ¿technologies¿ related to HCI, user-centered methodologies for development and deployment, task analysis, ergonomics, accessibility standards, emerging technologies, and principles and methodologies of effective interface design and evaluation. This course will also address appropriate communication skills for effective human-to-human interaction as the foundation for developing effective, user-centered designs. Prerequisite(s): CIT 157 and CIT 158.

CIT 270 Special Topics in Computer and Information Technology (1-3; maximum 6)
In-depth study and analysis of a topic of special or emerging interest in Computer and Information Technology. Prerequisite: Sophomore standing or permission of instructor. Offered only on regional campuses.

CIT 273 Web Application Development (3)
This course addresses the development of interactive web applications using both client and server side technologies. Topics include client-side scripting, server-side scripting, persistence, connectivity issues and their implementation, access and updating of databases via web interfaces, and the use of embedded multimedia. Current technologies will be used to program and implement the web applications. Prerequisite(s): CIT 158 and CIT 214.

CIT 276 Systems Analysis and Design (3)
Review of systems development fundamentals including requirements gathering and analysis; the analysis process; the essentials of design, system implementation, and support. Additional topics include teams, testing, project management issues, planning, and system maintenance. A complete system is analyzed and designed by student teams. Not open to CSE or MIS majors. Prerequisite: CSE 163 and any 200-level CIT or CSE course.

CIT 286 Network Administration and Security (3)
Essentials of network administration with an emphasis on network-based and Internet-based security applications and standards. Topics include planning, maintaining, and upgrading a network, core security concepts, and existing security architectures and systems. Prerequisite: ENT 294 or CSE 283. Offered only on regional campuses.

CIT 358 Information Technology Assurance and Security (3)
This course provides a foundational knowledge of the key issues associated with protecting information assets by addressing current issues and techniques in information security and information assurance. Topics will include the impact of security in the system development life cycle methodology, security threats, risks, and assets, incident response, cryptography, disaster recovery, data and information protection tools, information privacy, and regulatory compliance. Prerequisite(s): CIT 214 or CIT 276 or permission of instructor.

CIT 448 Global and Strategic Issues in Information Technology (3)
While information technologies remain the same across national borders, their usage and context change according to country cultures and national laws. Features such as information infrastructure, languages, business practice, intellectual property protection, and tariffs impact the adoption of IT in a transnational organization. In this course, students will define global technology issues and their impact, understand cultural differences and their effect on standards for the use of technology, develop resources to make informed decisions personally and professionally, and generally raise global awareness within an IT context. Prerequisite(s): CIT/CSE 262 or permission of instructor.

COMPUTER SCIENCE AND SYSTEMS ANALYSIS COURSES (CSE-Engineering and Applied Science)

CSE 141 Personal Computer Applications (2)
An introductory course for students who wish to become computer literate in common personal computer applications. The course emphasizes the use of Miami's computer resources, word processing, spreadsheet and presentation programs, with some exposure to common security and database management programs. Extensive hands-on use of personal computers. Not open to CSE majors and students with regular business standing. Credit not awarded for both CSE 141 and CSE 148 or CIT 154. Graded credit/no credit.

CSE 148 Business Computing (3)
An introduction to business-oriented computer skills. Extensive hands-on use of electronic spreadsheets and database software. Examples and exercises will stress problem-solving in a business context. Credit not awarded for both CSE 148 and CSE 141.

CSE 151 Computers, Computer Science, and Society (3) MPF
Perspective on the potential and limitations of computing technology. Topics include problem-solving in computing, computers as thinking machines, and the impact of computing on societies. Exposes students to programming languages and various computer tools. Not open to CSE and MIS majors. V.

CSE 153 Introduction to C/C++ Programming (3) MPT
Introduction to use of C/C++ programming language as an aid to solving mathematical and scientific problems. Students design, write, and implement programs.

CSE 157 Introduction to COBOL Programming (3)
Introduction to use of COBOL as a language for solving business problems which process large amounts of data. Students design, write, and implement COBOL programs. Not open to CSE majors.

CSE 163 Introduction to Computer Concepts and Programming (3) MPT
Introduction to computers in data processing, survey of various hardware and software concepts, and analysis and solution of problems by computer programming. Lecture/laboratory, project-oriented course to provide numerous opportunities to analyze problems, formulate alternative solutions, implement solutions, and assess their effectiveness. No prior knowledge of computer concepts or programming assumed. Prerequisite: high school algebra and trigonometry. V. 2 Lec. 1 Lab.

CSE 174 Fundamentals of Programming and Problem Solving (3) MPT
Algorithm development and refinement in problem solving. Modular programming using sequence, selection, and repetition control structures. Program debugging and testing. Formatted input/output. Data files. Fundamental data types. User-defined data types: structured and enumerated. Arrays and arrays of

structures. Simple sorting and searching algorithms. Character data and string processing. Algorithm efficiency considerations. Classes, objects, and introduction to object-oriented programming. 2 Lec. 1 Lab.

CSE 201 Introduction to Software Engineering (3)
Principles of software engineering: Introduction to all phases of the software development life cycle and associated tools and engineering methods including the unified modeling language (UML). Prerequisite(s): CSE 271.

CSE 211 Software Construction (3)
General principles and techniques for disciplined detailed software design. Basic theory of grammars and parsing. State-transition and table-based design. Formal specification languages and program derivation. Techniques for handling concurrency and inter-process communication. Tools for model-driven construction. Prerequisites: CSE 201 and MTH 231.

CSE 212 Software Engineering for Human Computer Interaction (3)
Principles of human-computer interaction (HCI) for software engineering. Psychological principles of HCI. Design methods such as task analysis and user-centered design. Projects demonstrating window, menu, and command design; voice and natural language I/O; response time and feedback; color, icons, sound. Prerequisite(s): CSE 271.

CSE 220 Professional Practice (0)
Students participating in computer technology associate's degree co-op program register for this course during semesters when they are on work assignment. This enables students to maintain continuing student status with the university.

CSE 241 Computational Modeling and Simulation (3)
Introduction to computational modeling and simulation of physical, biological, and engineering problems through mathematics and computer science tools. Examples of problems studied are complex problems such as adjusting drug dosages, bungee jumping, enzyme kinetics, and controlling malaria. Students will develop computational models in a programming language such as Matlab. Prerequisite: MTH 151 or permission of instructor.

CSE 251 Introduction to Game Programming (3) MPT
Introduction to computer programming techniques used in games and visual simulations. Simple data and control structures, mathematical foundations, transformations, rendering algorithms and interfaces. This course is designed for non Computer Science majors.

CSE 252 Web Application Programming (3) MPT
An introduction to programming concepts and practices for creating applications which use the web as the delivery platform. Students will learn technologies including HTML, Javascript, AJAX, client side programming and server side scripting to create interactive web applications. Not an elective for computer science and software engineering majors. Prerequisite(s): CSE 153 or CSE 163 or CSE 174.

CSE 253 Programming Languages (1-2)
Presents syntax and semantics of a particular programming language currently popular in industrial or academic settings. Addresses construction of programs in the language. Applications of the language presented. Coverage of good programming style and software engineering concepts addressed in context of the language. Not applicable to CSE electives requirement for a CSE major. Offered infrequently.

CSE 262 Technology, Ethics, and Global Society (3) MPF
Inquiry into a wide range of information technology issues, from moral responsibilities affecting professionals to wider ethical concerns associated with information technology in day-to-day living. Topics include general aspects of ethics; common ethical theories; professional codes of ethics in IT; privacy, security and reliability in using computer systems and the internet; issues and responsibilities in internet usage; legal issues in IT; global perspectives of computing issues; and general problems related to ethical and responsible computing. Prerequisite(s): ENG 11, a minimum of 20 credit hours earned. IIB, IIC. Cross-listed with CIT 262.

CSE 270 Special Topics (3)
Special topics in computer science, computer information systems, or operations research. Prerequisite: permission of instructor.

CSE 271 Object-Oriented Programming (3) MPT
The design and implementation of software using object-oriented programming techniques including inheritance, polymorphism, object persistence, and operator overloading. Students will analyze program specifications and identify appropriate objects and classes. Additional programming topics include dynamic memory recursion, using existing object libraries, and binary/ASCII file processing. Prerequisite: CSE 174 with a grade of C- or better or equivalent.

CSE 273 Optimization Modeling (3) MPT
Use of deterministic models and computers to study and optimize systems. Includes an introduction to modeling, calculus-based models, financial models, spreadsheet models, and linear-programming models. Prerequisite: MTH 251.

CSE 274 Data Abstraction and Data Structures (3) MPT
Data and procedural abstractions and classes. Object creation, message passing, constructors, destructor, dynamic storage allocation and garbage collection, class composition, introduction to inheritance and polymorphism. Abstract data types and their implementation as data structures. Sequential and linked storage representations; stacks, queues. Nonlinear data structures: trees and graphs. Implementation of abstract data types using object-oriented programming. Recursion, sorting, searching, and algorithm complexity. Prerequisite: CSE 271 with a grade of C- or better and MTH 231.

CSE 278 Computer Architecture (3)
Principles of Von Neumann computer architecture. Data representation and computer arithmetic. Memory hierarchy. CPU structure and instruction sets. Assembly language programming to better understand and illustrate computer architecture concepts. Performance considerations and alternative computer architectures. Prerequisite: CSE 271 or equivalent. Cross listed with ECE 278.

CSE 283 Data Communication and Networks (3) MPT
Introduction to data communications, computer networks, protocols, and distributed processing as well as relevant standards and underlying theory. Topics include communication codes, transmission methods, interfacing, error detection, communication protocols, communications architectures, switching methods, and network types. Local area network and internetwork technologies are studied. The client/server model of distributed processing will be addressed. Students will design and implement data communications and network-based software. Prerequisite: CSE 271 or permission of instructor. 2 Lec. 1 Lab.

CSE 311 Software Architecture and Design (3)
An in-depth look at software design. Study of software architecture, design patterns and software product lines. Designing for quality attributes such as performance, safety, security, reusability, reliability, etc. Measuring internal qualities and complexity of software designs. Evolution of designs. Basics of software evolution, reengineering, and reverse engineering. Application of formal methods to specify and evaluate designs. Prerequisite(s): CSA 211.

CSE 320 Professional Practice (0)
Students participating in the computer science and software engineering co-op program register for this course during semesters when they are away from Oxford on work assignment. This enables students to maintain continuing student status with the university.

CSE 321 Software Quality Assurance and Testing (3)
Quality: how to assure it and verify it, and the need for a culture of quality. Avoidance of errors and other quality problems. Inspections and reviews. Testing, verification and validation techniques. Process assurance vs. Product assurance. Quality process standards. Product and process assurance. Formal verification. Statistical testing. Prerequisite(s): CSE 201.

CSE 322 Software Requirements (3)
Domain engineering. Techniques for discovering and eliciting requirements. Languages and models for representing requirements. Analysis and validation techniques, including need, goal, and use case analysis. Specifying and measuring external qualities. Traceability. Agile approaches. Prerequisite(s): CSE 201.

CSE 372 Stochastic Modeling (3) MPT
Survey of methods of stochastic operations research including reliability, Markov processes, queuing theory, and decision theory. Computer used for modeling and solving problems. Prerequisite: STA 401 or concurrent registration, or STA 368.

CSE 381 Operating Systems (3)
Introduction to operating systems concepts. The operating system as a resource manager. Principles for the design and implementation of operating systems. User interface programming in current operating systems. Command languages and user interface. Process scheduling and deadlock prevention. Memory management, virtual memory, paging, and segmentation. Interrupt

processing. Device management, I/O systems and I/O processing. Security and protection. Examples of operating systems including distributed and open systems. Prerequisite: CSE 274 and either CSE 278 or ECE 387. 2 Lec. 1 Lab.

CSE 383 Client Server Programming (3)
An introduction to developing client/server based software solutions. Students will study various architectures and approaches including web-based and custom server systems. Students will design and construct both clients and servers using multiple platforms and systems. Prerequisites: CSE 274, 283.

CSE 385 Database Systems (3)
Overview of database management, database system architecture, and database modeling principles. Logical database design. The relational database model, relational integrity constraints, and relational algebra. Relational commercial database management systems and languages. Interactive database processing, view processing, and database application programming. Database integrity. Relational database design by normalization. File structures for database systems. Prerequisite: CSE 274 or concurrent registration.

CSE 386 Introduction to Computer Graphics (3)
Introduction to techniques to create images on the computer. Covers graphics hardware and software, animation, mathematical theory behind 2- and 3-dimensional translation, rotation, and scaling, and areas of graphics application such as computer-aided design. Programming required. Prerequisite: CSE 274 and MTH 231.

CSE 441/541 Applications of Technical Computing Environments (1)
This course provides engineering and science students with knowledge of technical computing environments, such as MATLAB or Mathematica, to solve a wide range of engineering and science problems. The emphasis is on the numerical solution of problems in linear algebra, differential equations, and optimization. Several toolboxes or libraries, such as those for signal processing, bioinformatics, and symbolic manipulation will be covered. Prerequisite(s): EAS 102, MTH 245 or MTH 347, and STA 368 (or equivalent). Concurrent course(s): CSE 153, CSE 174 or CSE 603.

CSE 443/543 High Performance Computing & Parallel Programming (3)
Introduction to practical use of multi-processor workstations and supercomputing clusters. Developing and using parallel programs for solving computationally intensive problems. The course builds on basic concepts of programming and problem solving. Prerequisite(s): CSE 278 or equivalent.

CSE 448/449 Senior Design Project (2, 1-2) MPC
Student teams, with varied academic backgrounds, conduct major open-ended research/design projects. Elements of the design process are considered as well as real-world constraints, such as economic and societal factors, marketability, ergonomics, safety, aesthetics, and ethics. 448: feasibility and design studies performed; 449: implementation, testing, and production of design. Non-majors can register for 3-4 credits; (448) 2 credits, (449) 1-2 credits. Prerequisite: senior standing in student's major. Cross-listed with MME and ECE 448/449.

CSE 464/564 Algorithms (3)
Review of basic data structures and algorithms. Analysis of algorithms. Problem assessment and algorithm design techniques. Algorithm implementation considerations. Concept of NP-completeness. Analysis of algorithms selected from topics relevant to computer science and software engineering (sorting, searching, string processing, graph theory, parallel algorithms, NP-complete problems, etc.) Prerequisite: MTH 231 or discrete math and CSE 274 or equivalent.

CSE 465/565 Comparative Programming Languages (3)
Survey of programming languages and their accompanying paradigms. Basic principles of syntax, semantics, implementation, and pragmatics are addressed. The survey will include representatives from the families of imperative languages, functional languages, logic languages, and hybrid languages will be introduced. Formal methods of definition and specification are introduced. Prerequisite: CSE 274 or equivalent.

CSE 466/566 Bioinformatics Computing Skills (3)
Programming in Perl and MatLab. Use of BLAST, BioPerl, BioPHP, and MatLab Bioinformatics Toolbox. Emphasis placed on biological database design, implementation, management, and analysis. Prerequisite(s): Programming course and BOT 116, or BOT 342, or permission of instructor. Cross-listed with BOT/MBI/ZOO 466/566.

CSE 467 Computer and Network Security (3)
Fundamentals of network, operating system and application security. Students will study and implement a variety of security techniques including defense, response and forensics. Extensive analysis, reading and writing will be integral to this course. Prerequisite: CSE 283 and CSE 383, or permission of instructor.

CSE 470/570 Special Topics (3)
Advanced topics in computer science or software engineering. Prerequisite: Permission of instructor.

CSE 471/571 Simulation (3) MPT
Use of digital computer program to simulate operating characteristics of stochastic dynamic system. Topics: problems encountered in construction of simulation programs, random number generation, random variety sampling, programming in simulation compiler languages, problems in design of successful simulation investigations, design of simulation experiments, interpretations of simulated output, and verification and validation. Case studies and projects used. Prerequisite: STA 401, a programming language and CSE 372.

CSE 473/573 Automata, Formal Languages, and Computability (3)
Regular expressions. Closure properties. Sequential machines and finite state transducers. State minimization. Chomsky hierarchy grammars, pushdown acceptors and linear bounded automata. Closure properties of algorithms on grammars. Turing machine as acceptor and transducer. Universal machine. Computable and noncomputable functions. Halting problem. Prerequisite: CSE 274 and MTH 231.

CSE 474/574 Compiler Design (3)
Examination of the nature of programming languages and programs which implement them. Compiler and interpreter design and implementation techniques. Review of grammars and languages (context free, context sensitive, regular). Design of interactive interfaces. Parsing of context free languages. Lexical analysis. Semantic analysis and code optimization. Prerequisite: CSE 274.

CSE 480/580 Special Problems (1-4; maximum 12)
Special systems problems decided by students in consultation with instructor. For students in departmental or university honors program. Prerequisite: permission of department chair prior to registration.

CSE 483/583 Statistical Forecasting (3)
Introduction to quantitative prediction techniques using historical time series. Involves extensive use of interactive computing facilities in developing forecasting models and considers problems in design and updating of computerized forecasting systems. Prerequisite: STA 401 or 462. Cross-listed with STA. Credit not awarded for both this course and DSC 444.

CSE 485/585 Advanced Database Systems (3)
Relational calculus. Query processing and optimization. Transaction processing: failure, recovery, and concurrency. Database security. Logic-based systems. Parallel, distributed, and client/server systems. Object-oriented database systems. Emerging database technologies. Prerequisite: CSE 385.

CSE 486/586 Introduction to Artificial Intelligence (3)
Basic concepts of artificial intelligence (AI) including problem solving, search knowledge representation, and rule-based systems covered with symbolic AI language such as PROLOG or LISP. Application areas (natural language understanding, pattern recognition, learning and expert systems) are explored. Prerequisite: CSE 274 or 606.

CSE 487 Game Design and Implementation (3)
Study of architectures, algorithms, and software design patterns used in computer games. Students work with a game engine to design and implement several kinds of games. Topics include animation techniques, physics simulation, user controls, graphical methods, and intelligent behaviors. Prerequisite: CSE 386 or permission of instructor.

CSE 491 Undergraduate Research (1-4; maximum 10)
Research problems in computer science, software engineering, or operations research, chosen in consultation with a faculty advisor. Requires a public presentation of completed work. For grade only. Prerequisites: Permission of instructor and approval of department chair.

CSE 600 Independent Study (1-3)
Special problems in computer science, computer information systems, or operations research requiring reading and research, decided in consultation with the instructor and the student's

graduate adviser. Does not apply toward fulfillment of the requirements of the graduate program. Credit/no-credit only. Prerequisite: permission of instructor and department chair.

CSE 603 Computer Programming (4)
Introduction to the design and implementation of computer software. Algorithm development, refinement, and problem solving approaches. Introduction to fundamental algorithms and data structures such as lists, sets, stacks, queues. Prerequisite: Graduate standing or permission of the instructor. 3 Lec. 1 Lab.

CSE 604 Computer Architecture (3)
Principles of Von Neumann computer architecture. Data representation and computer arithmetic. Memory hierarchy. CPU structure and instruction sets. Assembly language programming to better understand and illustrate computer architecture concepts. Performance considerations and alternative computer architectures. Prerequisite: CSE 271 or equivalent.

CSE 606 Data Structures and Algorithms (4)
Abstract data types and their implementation as data structures using object-oriented programming. Lists, stacks, queues, tables, trees, and graphs. Recursion, sorting, searching, and algorithm complexity. Three credit hours lecture, one credit hour lab. Prerequisite: CSE 603 and 607, or permission of instructor.

CSE 607 Introduction to Database Systems with its Mathematical Foundations (3)
Discrete math topics relevant to this course including set theory, propositional calculus, first order logic, functions, relations, and equivalence relations, overview of database management, database system architecture and database modeling principles. Logical database design. The relational database model, relational integrity constraints, and relational algebra. Relational commercial database management systems and languages. Interactive database processing, view processing, and database application programming. Database integrity. Relational database design by normalization. Prerequisite: Graduate standing or permission of instructor.

CSE 608 Computer Networks (3)
Introduction to data communications, computer networks, protocols, and distributed processing as well as relevant standards and underlying theory. Topics include network types, communication protocols, transmission methods and error detection. The course emphasizes internet technologies. Prerequisite: CSE 603.

CSE 609 Accelerated Discrete Math (1)
This course introduces discrete structures and proof techniques at a graduate level. Topics covered include sets, inductive reasoning, proof strategies, and relations. Prerequisite(s): Graduate standing in Computer Science.

CSE 610 Seminar in Systems Analysis (1-3)
Seminar topics in computer science, computer information systems, or operations research. Does not apply toward fulfillment of the requirements of the Master of Computer Science. Credit/no-credit only. Prerequisite: permission of instructor.

CSE 615 Mathematical Modeling (3)
Use of deterministic and stochastic mathematical models to study and optimize systems. This course includes an introduction to mathematical modeling and the study of linear programming, network models, Markov processes and queuing theory. Students will use computer software for model construction and problem solving. Prerequisites: credit in calculus, probability, statistics, or permission of instructor.

CSE 617 Advanced Networks (3)
Study of advanced networking techniques, client/ server programming, and distributed processing. Critical analysis of these areas develops as students learn the strengths and weaknesses of these technologies through assigned programming projects. Prerequisite: CSE 608 or equivalent.

CSE 618 Graphics for Simulation and Virtual Environments (3)
Study of hardware, software, and algorithms used in computer graphics. Instruction emphasizes the use of a scene graph-based API. Topics will include lighting, blending, texture mapping, non real-time rendering techniques such as radiosity and ray tracing. Prerequisite: CSE 606 or equivalent.

CSE 620 Special Topics (3)
Special topics in computer science. Prerequisite: permission of instructor.

CSE 621 Foundations of Software Engineering (3)
Foundational theories for software engineering; Topics include project management, modeling notations, refinements processes, verification and validation, and evolution. Prerequisite(s): CSE 201 or equivalent.

CSE 624 Expert Systems (3)
Expert Systems architecture, knowledge representation, and inference techniques. Provides a combination of both theory and practice in expert systems. Prerequisite: CSE 274 or 606.

CSE 626 Informational Retrieval Systems (3)
Introduction to information storage and retrieval (IR). Indexing, clustering, signature generation. Retrieval approaches: inverted files, cluster-based retrieval, signature files, hypertext, and multimedia systems. Special hardware for IR. Web-based IR and information filtering. Prerequisite: CSE 606 or equivalent.

CSE 627 Machine Learning (3)
Concepts and algorithms of machine learning including version-spaces, decision trees, instance-based learning, networks, evolutionary computation, Bayesian learning and reinforcement learning. Prerequisite: CSE 606 or equivalent.

CSE 628 Advanced Simulation (3)
Advanced simulation topics such as heuristic optimization techniques for simulation and distributed simulation as well as classical techniques such as experimental design, variance reduction, and comparison of alternative designs. Students will embed some of these techniques in an object-oriented simulation program. The effectiveness of these techniques will be investigated in complex simulation models such as queuing networks. Prerequisite: CSE 471/571.

CSE 631 Ontologies for Semantic Web (3)
Principles, practice and current research underlying the use of ontologies for the Semantic Web. Key concepts including: ontology representation and reasoning, ontological engineering, software tools, ontology visualization, and applications. Prerequisite: CSE 486/586 or permission of instructor.

CSE 664 Advanced Algorithms (3)
A review of NP-Completeness and poly-time reductions; an introduction to randomized algorithms and the randomized complexity classes PP, RP, and BPP; an introduction to approximation algorithms for solving NP-Hard problems; polynomial-space algorithms and the classes PSPACE and the poly-time hierarchy; Poly-time approximation schemes and approximation algorithms via linear-program rounding.

CSE 690 Graduate Research (3)
Research problems in computer science, computer information systems, or operations research, decided upon in consultation with the instructor and student's graduate adviser. Requires a public presentation of completed work. For grade only. Prerequisite: permission of instructor, student's graduate adviser, and graduate director.

CSE 700 Research for Master's Thesis (1-10; maximum 10)
Study under graduate faculty supervision of a research problem related to computer science, computer information system, or operations research. Approval and public presentation of a thesis proposal is required within the first three hours of thesis research. Upon completion of research, a thesis is prepared and defended before the advisory committee for approval. Minimum of two semesters of thesis research toward fulfillment of the thesis research requirement. Maximum of six credit hours of CSE 690 and 700 may be applied toward fulfillment of the thesis research requirement for the Master of Computer Science. Offered pass/fail. Prerequisite: permission of student's graduate adviser.

CRIMINAL JUSTICE COURSES (CJS- Arts and Science; Department of Political Science)

CJS 101 Introduction to Criminal Justice Studies (3)
Offers an overview of America's criminal justice system, with an emphasis on the development, functions, and current issues/problems facing the current criminal justice system. Course specifically focuses on the history, roles, and present state of the police, courts, and corrections.

CJS 125 Law and the Courts (3)
Provides a critical examination of the American judicial system and legal processes. Focuses on the contextual meaning of law and justice to society and will encourage critical thinking from political, sociological, historical, and philosophical perspectives.

CJS 211 Law Enforcement (4)
Provides students with an in-depth analysis of America's system of law enforcement. Policing course which covers: eras of law enforcement, law enforcement styles and patrols, entering and working in the police subculture, police ethics/civil liability, and the future of American law enforcement.

CJS 220 Criminal Justice Field Experience (3)
Students will contract with an appropriate independent agency for 120 hours of internship work. Hands-on experience within the students' chosen component of the criminal justice system, personal reflection, and opportunity for career direction will occur. Prerequisite(s): CJS 101, 125 and 211.

CJS 231 Law and Individual Rights (4)
Investigates the development and evolution of constitutional protections for American civil rights and liberties. Provides a thorough examination of U.S. Supreme Court cases and supplemental readings, with attention to the legal, historical and political influences that have shaped constitutional liberties.

CJS 232 Criminal Defense and Adjudication (4)
Examines substantive criminal law, including: elements that comprise offenses and defenses in criminal law, the process of adjudication, and primary constitutional restrictions on criminal law.

CJS 256 Police Organization, Administration, and Management (4)
Examines the structures, processes, and behaviors specific to police administration including: politics behind governing a police department, leadership and communication issues specific to the law enforcement field, and legal aspects of police administration. Prerequisite: CJS 211.

CJS 271 Criminal Behavior (3)
Focuses on theories of criminal behavior and activity. Provides criminal justice students with a micro level, law enforcement approach to criminal behavior. Students will be expected to learn and apply criminological theory, criminal typologies, and appropriate agency responses.

CJS 272 Forensic Evidence (3)
Focuses on crime scene evidence collection and analysis. Provides students with the definition, scope, and utilization of forensic science within the criminal justice system. Students will be expected to learn and apply crime scene processing, differentiate and analyze crime scene evidence, and understand special services provided by forensic agencies.

CJS 276 Homeland Security and Critical Incident Management (3)
Focuses on the role of law enforcement within Homeland Security and critical incident response/management. Students are expected to critically analyze the conflict between civil liberties and civil defense within the context of Homeland Security, understand the sequence and importance of critical incident management, and learn how to effectively implement law enforcement response and prevention tactics. Cross-listed POL 276.

CJS 282 Seminar in Criminal Justice (3)
Course involves reading, research, and discussion of issues in the criminal justice system. Students will be provided readings on a topic of their choice, will learn how to present in a professional manner, and will engage in critical analysis and interaction with other learners. Pre-requisite(s): CJS 101, 125, 211, 231, 232 and 256.

DECISION SCIENCES COURSES (DSC-Business; Department of Decision Sciences and Management Information Systems)

DSC 203 Supplementary Business Statistics (1)
Review of elementary statistics. Regression analysis and statistical process control. For students needing additional coursework to complete the topics in DSC 205. Prerequisite: MTH 151, STA 261 or equivalents.

DSC 205 Business Statistics (4) MPT
Basic probability. Discrete and continuous distributions. Sampling theory, confidence intervals, and hypothesis testing. Analysis of process data. Simple and multiple regression analysis. Emphasis on computer implementation. Prerequisite: MTH 151 and a high school course in computers or equivalent. Credit not given for both DSC 205 and any other introductory statistics course (for example, STA 261, STA 368).

DSC 291 Applied Regression Analysis in Business (3) MPT
Multiple regression as related to analysis of business problems. Includes useful regression models, statistical inference (intervals and hypothesis tests) in regression, model building, regression assumptions, remedies for violations of assumptions, applications in experimental design, and time series analysis. Prerequisite: DSC 205 or equivalent.

DSC 321 Quantitative Analysis of Business Problems (3) MPT
Examination of business problems from a quantitative model building point of view. Selected models from management science, including linear and nonlinear programming and simulation. Methodologies combined with those from prerequisite courses. Prerequisite: DSC 205.

DSC 330 Professional Practice (0-1; maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/ESP/FIN/MGT/MIS/MKT 330.

DSC 331 Quantitative Methods of Decision Making (3)
Models for managerial decision making under conditions of risk or uncertainty with single or multiple goals. Prerequisite: ACC 222, DSC 205, ECO 201 or 202. Offered infrequently.

DSC 333 Nonparametric Statistics (3) MPT
Applied statistical techniques useful in estimating parameters of a business population whose underlying distribution is unknown. Chi-square, sign, rank, and runs tests included. Prerequisite: DSC 205 or equivalent. Cross-listed with STA.

DSC 365 Statistical Quality Control (3) MPT
Statistical procedures used in quality control. Control charts for measurement and attribute data. Process capability studies. Introduction to design of experiments for quality improvement including factorial and fractional factorials along with industrial applications. Cross-listed with STA. Prerequisite(s): DSC 205 or STA 301 or 363 or 368 or equivalent.

DSC 421/521 Computer Modeling in Business (3)
A course in computer modeling of business and economic processes. Deterministic and stochastic models of the firm and its components, statistical aspects of business models, Monte Carlo studies, computer languages. Prerequisite: (421) DSC 321; (521) DSC 616 or 618 or permission of instructor.

DSC 432/532 Survey Sampling in Business (3) MPT
Survey sampling with application to problems of business research. Simple random sampling, systematic sampling, stratified random sampling, ratio estimation, and cluster sampling. Prerequisite(s): DSC 291, STA 363 or STA 401 or permission of instructor. Cross-listed with STA.

DSC 444/544 Business Forecasting (3) MPT
Applied techniques useful in analyzing and forecasting business time series. Emphasis on Box/Jenkins methodology. Time series regression with autocorrelated errors, exponential smoothing, and classical decomposition are also discussed. Prerequisite: DSC 291 or equivalent.

DSC 447/547 Analysis of Multivariate Business Data (3)
Introduction to multivariate data analysis as applied to business problems in which many variables play an important role. Exploratory data, discriminant, classification, factor, and cluster analysis; multidimensional scaling, and other related techniques. Offered infrequently.

DSC 480/580 Topics in Decision Sciences (1-3; maximum 3)
Issues oriented seminar focused upon significant emerging topics in the decision sciences field. Prerequisite: determined by professor.

DSC 491 Introduction to Data Mining in Business (3) MPT
Analysis of large data sets related to business is the focus. Topics such as cluster analysis, market basket analysis, tree diagrams, logistic regression, neural nets, model evaluation and application

will be presented and implemented using current data mining software. Prerequisite: DSC 291.

DSC 601 Quantitative Business Analysis (1)
Introduces the MBA students to the use of spreadsheets for constructing and using mathematical models of business problems as an aid to the decision making process.

DSC 602 Graduate Survey in Statistics (2)
A survey of basic statistics for analysis of business problems; designed for students in the fulltime MBA program.

DSC 615 Statistical Methods for Managerial Decision Making (3)
Discussion of statistical reasoning for managers and statistical methodology most useful for solving business problems. Process control and capability. Simple and multiple regression analysis. Residual analysis and model building. Time series forecasting. Experimental design. For full-time MBA students only.

DSC 616 Quantitative Models for Business Decision Making (3)
Presents process of modeling and using quantitative models as an aid for solving business problems. Provides the foundation for employment of modeling and models in all functional areas of business. The pedagogy encourages integration of quantitative methods with content of functional areas of business. For full-time MBA students only.

DSC 618 Business Operations Research (3)
Study and critical evaluation of operations research techniques from a business administrative viewpoint. Prerequisite: DSC 602 or equivalent.

DSC 619 Statistical Modeling for Business Decision Making (3)
Applied presentation of statistical techniques employed in business decision making. Analysis and problem solving using computer based statistical programs. Prerequisite: DSC 602 or equivalent.

DSC 671 Statistical Process Analysis and Improvement for Managers (3)
Statistical methods for analyzing and improving business processes. Advanced control chart methods for eliminating assignable cause variation. Cusum and EWMA charts. Control procedures for autocorrelated process data. Experimental design methods for reducing common cause variation. One-way and two-way ANOVA. Fractional factorial designs. Prerequisite: DSC 615.

DSC 681 Special Studies in Decision Sciences (1-3)
Intensive reading or research in a selected field of advanced decision sciences. Prerequisite: graduate standing and permission of instructor.

DSC 700 Thesis (3-6; minimum 3, maximum 6)

DISABILITY STUDIES COURSES (DST-Arts and Science)

DST 169 Disability Identity (3) MPF
Study of the construction of disability identity through literature, memoir, and popular culture. Cross-listed with ENG 169. MPF IIB, Cul. CAS-B: Humanities.

DST 212 Deaf Culture: Global, National, Local Issues (3)
Provides a comprehensive orientation to the Deaf and hard-of-hearing communities in continents around the globe. Students will learn the basic vocabulary and grammar of American Sign Language. Consideration will also be given to sign systems in Europe and the U.S. The students will be introduced to the sociolinguistic aspects of educational, political and environmental impacts on Deaf culture, identity, and language. Cross-listed with SPA 212.

DST 247 Rhetoric of Disability Rights (3) MPF
Students identify the Disability Rights Movement, investigate movement rhetoric and theory, practice criticism of popular texts that influence ableism, and engage controversial issues debated by disability rights activists. Cross-listed with COM 247. MPF 111A. CASB.

DST 272 Introduction to Disability Studies (3) MPF
Explores the link between the social construction of disability and that of race, class, gender, ethnicity, and sexual orientation as they pertain to social justice in a multicultural and democratic society. Promotes critical analysis of dominant and nondominant perspectives on disability. Cross-listed with EDP/SOC.

DST 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)
Provides a critical analysis of the historical, sociological, cultural, media and educational images and representations of women with disabilities. Current research and theories from Disabilities Studies and Women's Studies will serve as the lenses for the exploration of disability as a social construct. The course will focus on exploration of oppressive social forces embedded in the re/presentations of and by women with disabilities which transform and complicate such images. Cross-listed with EDP/SOC/WMS 278.

DST 329 Disability Poetics and Narrative Theory (3)
Studies in poetic and narrative theory emerging from literature about disability, with readings from ancient Greece to Shakespeare and contemporary literature. Cross-listed with ENG. CAS-B: Humanities.

DST 335 Disability and Aging (3) MPT
This course examines the experiences of disability and aging from a life course perspective, with an emphasis on the social construction of both disability and aging and their interaction. Identifies and examines issues of disability definition and measurement; individual and societal responses to disability and aging; and the outcomes of these responses for individuals, families, communities and society. Cross-listed with GTY 335. Pre-requisite(s): GTY 154.

DST 375 (Dis)Ability Allies: To be or not to be? Developing Identify and Pride from Practice (3)
Explores what it means to be ally to/in/with the disability community in America. The course emphasizes identity formation and how that formation can inform the construction of the ally identity. Through deconstructing learned values, knowledge, and images of disability that mitigate ally behavior, students discover the micro and macro structures that support ally behavior. By exploring how social control and social change have worked in other civil rights movements, students understand the necessity of identifying and including allies in the disability movement for civil rights. Cross-listed with EDP/SOC/WMS 375. CAS-C: Social Science.

DST 378 Media Illusions: Creations of "The Disabled" Identity (3)
Provides a critical analysis of past and present media constructions of persons with disabilities. Through exploring theory and research from diverse disciplines (communication, sociology, gerontology, educational psychology and others), students explore how perceptions of persons with disability are formed and analyze how the media is implicated in creating, distorting, and reflecting stereotypical and fictionalized images of disability. The course analyzes how these images shape public perception and reproduce the unequal power and privilege relationships that maintain the status quo while providing resources and techniques for the provision of alternative images of disability in various media genres. Cross-listed with COM/EDP/SOC/WMS 378. CAS-C: Social Science.

DST 494 Disability in Global and Local Contexts (3)
Examines contemporary disability issues and policies and the lived experiences of persons with disabilities in international and local contexts, with emphasis on understanding disability within particular communities-both locally and in other countries-and on learning multiple research methods. Cross-listed with ENG/SPA/COM/SOC and EDP 489. Prerequisite(s): Permission of instructor.

ECONOMICS COURSES (ECO-Business)

Note: Principles of Microeconomics 201 and Principles of Macroeconomics 202 are a course sequence of basic economic principles and their applications aimed to develop an analytic framework for interpreting economic events, trends, institutions, and public policies. The two semesters are conceived as a year course; the recommended sequence is 201, 202.

ECO 131 Economic Perspectives on Inequality in America (3) MPF
Introduction to economic perspectives on inequality in the United States, particularly the relationship between inequality and population diversity. The role of the market and of public policy in generating, transmitting, and ameliorating inequality. Dimensions of inequality include earning inequality, poverty, and unequal access to education and health care. Dimensions of diversity include

race, ethnicity, gender, age, socioeconomic class, immigration status, and sexual orientation. IIC.

ECO 201 Principles of Microeconomics (3) MPF, MPT
Nature and scope of microeconomics, including the role of the market in resource allocation, the role of competition, market forces, the forces governing the distribution of income, and the role of foreign trade in economic welfare. IIC.

ECO 202 Principles of Macroeconomics (3) MPF, MPT
Analysis of the determinants of output, prices, employment, and interest rates. Includes long run behavior of the economy, business cycle theory, monetary system, stabilization policy, and international finance. IIC.

Advanced Economics Courses

Note: Prerequisite for advanced courses: ECO 201, 202 unless otherwise stated; for graduate credit: ECO 201, 202 or ECO 601 unless otherwise stated.

ECO 301 Money and Banking (3)
Nature of money and its role in the functioning of a modern monetary economy; the institutional framework of the U.S. monetary system; and aims, potentialities, and limitations of monetary policy. Prerequisite: 58 earned hours.

ECO 305 The Economics of Organization in a Global Economy (3)
The Economics of Organization in a Global Economy will use economic analysis to examine the nature of organizations operating within a global economy. The course begins with a detailed study of the role that markets and non-market organizations play in shaping the organization of economic activity. The crucial role of information in determining the form and function of modern organizations will take the course into such modern tools as game theory, the economics of information, and transaction cost economics. The course then proceeds to examine the global environment in which organizations operate and how organizations both impact and are impacted by that environment. Pre-requisites: ECO201.

ECO 311 Examining Economic Data and Models (3)
Introduction to the use of linear regression techniques for examining economic data and evaluating economic models. Topics may include hypothesis testing, dummy variables, forecasting, and limited dependent variable models. Sources of economic data are explored. Applications to topics in economics are stressed. Prerequisites: ECO 201, ECO 202, and DSC 205 or STA 261, STA 301, or STA 368.

ECO 315 Intermediate Microeconomic Theory (3) MPT
Analysis of the theory of consumer behavior and theory of the firm. Emphasis on logic of rational choice, model building, and economic efficiency. Other topics may include general equilibrium analysis, decision making under uncertainty, and applications of game theory in understanding strategic behavior in imperfect competition. Prerequisite: MTH 151, 153, or 155 (in addition to ECO 201 and 202).

ECO 317 Intermediate Macroeconomic Theory (3) MPT
National income, as a measure of economic activity, including examination of theories of consumption and investment spending, monetary demand and supply, and implications of alternative models for level and stability of output, employment and prices, and economic growth. Prerequisite(s): MTH 151, 153 or 155 (in addition to ECO 201 and 202).

ECO 320 Special Topics in Economics (2-3; maximum 9)
Examination of special topics in theoretical or applied economics not treated in the existing economics curriculum. Specific topics and hours to be determined by instructor.

ECO 321 Economic Institutions and the Competitive System (3) MPT
American economy in its institutional forms and economic theory, analyzed to comprehend the nature and problems of economic life and thought today. Special attention given to heritage of market capitalism as it has evolved into the post-Keynesian 'competitive' market system and the 'post-industrial' era.

ECO 325 Economic Analysis of Law (3) MPT
Survey of the use of microeconomics in the analysis of law by looking at selected issues in law and economics such as property rights, contracts, torts, crime, enforcement, litigation, and precedents. Emphasis on use of microeconomic analysis to understand implications of existing and proposed legal mechanisms.

ECO 327 Economics and the Stock Market (3)
Survey of recent applications of economic theory to the stock market. Interrelationships between the real and financial sectors of the economy. Market efficiency, anomalies, and exploitability. Economic and psychological theories of investor behavior. Offered infrequently.

ECO 330 Professional Practice (0-1; maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/ESP/FIN/MGT/MIS/MKT 330.

ECO 331 Public Sector Economics (3) MPT
Discussion of the rationale for government expenditures and taxation and how they affect resource allocation, efficiency, and equity in the distribution of income. Other topics may include the role of voters, special interests and government bureaucracy in determining government policy, other current tax and expenditure issues.

ECO 332 Health Economics (3) MPT
Investigation of the markets for health care and related sectors of the economy with attention to institutions and data for the U.S. health care sector. Emphasizes the presence of moral hazard and asymmetric information in various health care markets. Topics may include proposals for reform, malpractice, drug regulation, Medicare and Medicaid, problems of access to care for the uninsured, and cross country comparisons. Prerequisite: ECO 201.

ECO 337/338 Directed Research in European Studies (1-4, 1-4)
Reading and research on selected social science topics. Emphasis upon European language materials and data sources. Recommended to be taken concurrently with French or German 337, 338. Offered at European Center only. Cross-listed with GEO and SOC 337, 338.

ECO 341 Economic History of Modern Europe (3) MPT
Analysis of economic growth and structural change in Western Europe from 17th to 20th centuries. Includes agrarian change, rural industry, trade, finance, manufacturing technology, urban systems, and socioeconomic consequences of industrialization.

ECO 342 Comparative Economic Systems (3) MPT
Investigation into theoretical underpinnings of the "pure" systems of competitive capitalism, market socialism, and command socialism, with this analysis forming the background against which to assess the "real world" functioning of these systems of economic organization.

ECO 344 International Economic Relations (3) MPT
Comparative advantage as basis for gains from specialization and trade examined in some detail. Supply and demand analysis used to study the effects of barriers to trade (tariffs, quotas, etc.). Study of monetary aspects of international economic relations, including: alternative forms of international monetary organization, balance of payments, exchange rates, and mechanisms of balance of payments adjustment.

ECO 347 Economic Development (3) MPT
Analysis of current problems of developing countries in Asia, Africa, and Latin America. Emphasis on the role of economic theory in devising policies to achieve improvements in the level and distribution of economic welfare in these countries.

ECO 356 Poverty and Income Distribution (3) MPT
Application of economic analysis to poverty, income inequality, and factor shares. Discussion of determinants of earnings, including education, ability, and discrimination. Analysis of efficiency and costs of programs to reduce poverty, such as minimum wages, cash transfers, and in-kind transfers. Offered infrequently.

ECO 361 Labor Economics (3) MPT
Survey of the field of labor with emphasis on supply and derived demand for labor. Includes analysis of labor force participation, hours of work, wage determination and market structure, trade unions, and an examination of how government programs influence the labor market (which may include social transfer programs, social security and unemployment insurance). Other labor market issues that may be considered include discrimination, the structure of compensation and the consequences of various labor laws.

ECO 373 Economic Growth (3)
Investigates the sources of economic growth within a country and the factors that affect relative growth across countries. The course

addresses issues of income convergence and the role of policy in determining the long-run rate of growth.

ECO 385 Government and Business (3) MPT
Public policy in the field of government regulation of business. Methods of social control, constitutional background, problems of competition, moderating competition, regulatory commissions, direct controls, and problems of public ownership.

ECO 402 Economic and Social Decision Making (3)
Intensive study of social and interdependent decision making. Topics include decision framing and mental accounting, social exchange theory, social dilemmas (public goods problems, resource dilemmas), coordination, and market entry problems. Cross-listed with PSY 422/522.

ECO 405 Managerial Economics (3) MPC
Uses microeconomic models to apply concepts from the FSB core areas to solve problems and make decisions that managers of firms may face daily. Class time is allocated to the development of economic models that integrate the core areas, problem solving to apply the models in typical business settings, and the analysis of cases. Gives students opportunity to present as a team an analysis of cases using skills and concepts from the core courses. Prerequisite(s): available only to students with senior standing who have completed the common core of business courses; students who have not completed all of these courses must have permission of the instructor to enroll.

ECO 414 Mathematical Microeconomics (3)
Investigates topics central to microeconomic theory from a modern mathematical perspective. Emphasis on equilibrium models with some game theoretic approaches. Prerequisite: MTH 151 and ECO 315 or permission of instructor.

ECO 416/516 Topics in Microeconomics (2-3; maximum 3)
New developments and specialized topics in microeconomic theory are selected by instructor to be studied in depth. Prerequisite: ECO 315 or 615. Offered infrequently.

ECO 417 Topics in Macroeconomics (3)
New developments and specialized topics in macroeconomic theory and/or policy as selected by instructor for study in depth. Prerequisite: ECO 317.

ECO 418/518 Monetary Theory and Policy (3) MPT
Study of the behavior of financial institutions and their respective roles in transmission of monetary policy. Elements of monetary theory including quantity theory of money and its restatements, theory of interest, and inflation. Prerequisite: ECO 317.

ECO 419 Business Cycles (3) MPT
Analysis of the causes and effects of economic fluctuations; topics include economic indicators, economic theories of business cycles, and a survey of macroeconomic patterns in the United States. Prerequisite: ECO 317. Offered infrequently.

ECO 420 Seminar on Economic Problems (1-3; maximum 9)
Selected topics in economics. Prerequisite: permission of instructor. Offered infrequently.

ECO 423/523 History of Economic Analysis (3)
Development of economic analysis as it evolved over the years since 1750. Schools of thought covered are preclassical and classical; socialists and Marx, Neoclassical; and heterodoxy-historist, institutional and imperfectly competitive. Prerequisite: ECO 315 or permission of instructor.

ECO 427 The Great Depression Revisited (3) MPC
The Great Depression of the 1930s was a traumatic period in our history, still widely discussed and analyzed by economists, and its specter has influenced our leaders and their policies to this day. Vigorous debate continues over the cause(s) of its unprecedented severity, and therefore, what its lessons are. A wide range of competing theories have been proposed, each involving different assumptions based upon opposing ideological foundations, about the way our macroeconomic system functions. In this team-taught course, students read original literature that offers opposing views of the causes. Competing theories are applied in a computer simulation program, which allows students to capture the relationships implied by the institutional framework of the period and the economic literature in order to judge the degree to which opposing views can be supported. Prerequisite: ECO 317 and senior standing or permission of instructor.

ECO 434/534 Environmental Economics (3) MPT
Economic analysis of environmental quality. Strategies for collective environmental action. Benefit-cost analysis. Economic growth and environmental quality.

ECO 435/535 Urban and Regional Economics (3)
Analysis of spatial distribution of firms and individuals in regions and urban areas. Includes economic structure and growth of regions, regional input-output models, urban transportation, housing, poverty, fiscal problems of cities, and migration. Offered infrequently.

ECO 441/541 International Trade and Commercial Policy (3)
Examination of underlying causes of international trade, determinants of trade, effects of trade on income, relationship between trade and international factor movements, and theory and practice of restrictions on trade. Prerequisite: ECO 315 or 603.

ECO 442/542 International Monetary Relations (3)
Monetary aspects of international economic relations. Alternative forms of international monetary organization, balance of payments, exchange rates, and mechanism of balance of payments adjustment. Prerequisite: ECO 317 or 301 or permission of instructor.

ECO 451/551 Economic History (3)
Primarily American economic history as studied from the point of view of economic theory and quantitative methods. Qualitative determinants of long-run economic growth and structural change investigated. Prerequisite: ECO 315 and 317, or permission of instructor. Offered infrequently.

ECO 461/561 Industrial Organization and Public Policy (3)
Effects of structure, conduct, and performance of imperfectly competitive firms upon social welfare. Includes social costs of imperfect competition, determinants of market structure, mergers, barriers to entry, advertising, and research and development. Prerequisite: ECO 315 or 603. Offered infrequently.

ECO 462 Economics of Compensation (3) MPT
Survey of the economics of human resources. Topics may include rationale for and effects of alternative forms of compensation and contracting; theory and measurement of discrimination against minorities and women; and causes and consequences of unionism. Prerequisite: ECO 315 or 361.

ECO 465 Game Theory with Economic Applications (3)
Topics from the field of game theory applied to numerous economic problems. Equilibrium concepts are derived to determine the outcome of economic agents pursuing individual self-interest in a ¿non-cooperative¿ environment. Specific tools included: multi-person decision trees, expected utility theory, Bayes Theorem, and several classes of games. Economic applications may include: wage bargaining, strategic trade policy, adverse selection and credit rationing, strikes, cartel enforcement, insurance, patents, and product variety. Prerequisite: ECO 315.

ECO 480/482 Independent Reading (3, 3)
Seminar leading to a qualifying written report for graduation with departmental honors. Prerequisite: approval of honors coordinator (see current class schedule).
Note: The following courses are open only to full-time M.B.A. students: ECO 616, 635.

ECO 600 Seminar: Special Topics in Economics (1-3; maximum 9)
Offered infrequently.

ECO 601 Graduate Survey in Economics (5)
Survey of the principles of economics for students in the M.B.A. program who have not included economics in their undergraduate curricula. Credit not applicable to minimum hours required for M.B.A. degree.

ECO 602 MBA Economics Module (3)
Introduces the full time MBA student to basic concepts in micro and macroeconomics, such as demand, costs, production, market structure, pricing, macroeconomic data, Federal Reserve policy and business cycles among others. Managerial applications will be introduced with the help of game theory.

ECO 603 Microeconomic Theory (3)
Examination of theoretical tools of microeconomics. The logic of micro phenomena is dealt with in partial and general equilibrium frameworks emphasizing general principles of marginalist-maximizing behavior. Enrollment limited to students in MBA program.

ECO 615 Advanced Microeconomic Theory (3)
Exposition of the general principles and analytical tools of microeconomic theory. Includes theory of consumer choice, production and cost, pricing in various market structures, distribution theory, general equilibrium analysis, and welfare economics. Prerequisite: ECO 315 or 603.

ECO 616 Microeconomic Analysis for Managerial Decisions (3)
Focuses on microeconomic analysis of consumers, firms, and market organization. Topics may include analysis of antitrust and regulatory issues.

ECO 617 Advanced Macroeconomic Theory (3)
Development of an aggregative model of output, employment, interest rates, and prices. Analysis of the effect of government policy on these variables. Implications of alternative specifications of the model are also examined. Prerequisite: ECO 317 or equivalent.

ECO 640 Topics in Microeconomics (3)
Advanced selected topics in theoretical and applied microeconomics. Prerequisite: ECO 615 or permission of instructor.

ECO 650 Topics in Macroeconomics (3)
Advanced selected topics in theoretical and applied macroeconomics. Prerequisite: ECO 617 or permission of instructor.

ECO 661 Quantitative Methods for Economists (3)
Development of mathematical and statistical techniques essential for understanding economic theory and performing economic research. Includes calculus of several variables; linear algebra; classical, nonlinear, and convex programming; and comparative statics. Supporting examples and applications are from various subfields of economics. Prerequisite: MTH 151 or equivalent.

ECO 663 Econometrics (3)
Theoretical and applied regression analysis under ideal and non-ideal conditions. Includes simultaneous equation models and time series techniques. Prerequisite: STA 301 and STA 401 or equivalent.

ECO 671 Topics in Applied Econometrics (2)
Topics include simultaneous equations bias, omitted variable problems, and estimation with limited dependent variables. Prerequisite: ECO 663.

ECO 672 Applied Time Series Analysis (2)
Topics include autoregressive and moving average models, unit root topics, and co-integration. Prerequisite: ECO 663.

ECO 681/682 Special Problems in Economics (1-3, 1-3)
Intensive reading or research in selected fields of economics. Prerequisite: graduate standing and permission of instructor.

ECO 685 Economic Research Methods (3)
Consideration of alternative economic methodologies; selection and specification of critical hypotheses; model construction; sources of data; model verification, evaluation, and revision. Prerequisite: graduate standing in economics. Summer only.

ECO 690 Master's Research (1-12)
In-depth research paper written with supervision of at least two members of graduate faculty.

EDUCATION HEALTH AND SOCIETY COURSES (EHS- Education, Health and Society)

EHS 667 Behavior Statistics (3)
The basic concepts of descriptive and inferential statistics are discussed. This course stresses the logical interpretation of results.

EHS 668 Behavior Statistics II (3)
Advanced concepts of descriptive and inferential statistics are discussed. This course stresses the logical interpretation of results.

EDUCATIONAL LEADERSHIP COURSES (EDL-Education, Health and Society)

EDL 100 Career Development for the College Student (2)
This course is designed to take students through the process of clarifying career and/or academic goals. Students will do research assignments and activities designed to help them to learn about themselves and how to apply this information to career decision making.

EDL 110 The University and the Student (1)
Helps students understand how the university operates and how its resources can be used to develop their educational goals. Taught in seminar style; designed to help develop personal relationships among students and instructor. For freshmen only. Credit/no-credit only.

EDL 125 The Teacher Academy Portfolio (3)
The Teacher Academy is offered to Talawanda High School Seniors interested in exploring teaching as a career. Students build upon their fall semester coursework in the Academy, using their field experiences in the schools spring semester to develop a reflective portfolio for public display.

EDL 141 Mentoring Diverse Students (2)
This course is the required training seminar for the Office of Diversity Affairs Connection Coach Peer Mentor Program. Only students accepted into the Connection Coach program through the Office of Diversity Affairs are permitted registration into this course.

This course illuminates the connection between student development theory and peer mentoring and peer coaching. It is intended that through the study of student development theory and cultural competency standards, as well as exercises around identity development, peer mentors will become more self-reflective. Furthering this understanding of self will result in a better-equipped mentor.

EDL 204 Sociocultural Studies in Education (3) MPF, MPT
Introduction to the field of social foundation of education using humanities and cultural studies approaches to investigate education in a diverse and democratic nation. IIB.

EDL 206 The Nature of Group Leadership (2)
A course for first or second year students interested in exploring multiple approaches to leadership, group leadership skills, and building capacity for socially responsible leadership. The course involves engaged learning through community action work, skill building, reading, writing, case analysis, and Diaglogue. Encouraged for students in the CHANGE Living/Learning Community.

EDL 280 Undergraduate Research: Special Topics (1)
Using the discovery learning model and inquiry-based learning, this course is designed to push students beyond their desire to gain information from external authorities. This course will be offered to students who are engaged in undergraduate research. This is a special topics course that may include experience and discuss library research techniques; research ethics and human subjects; organizational strategies for college researchers; literature reviews, research annotations and abstracts; leadership and communication skills; quantitative and qualitative research techniques; statistical software; research careers and professional development; learning plans, personal mission statements and goal setting; proposal writing and poster development and presentation.

EDL 282 Cultural Studies, Power, and Education (3) MPT
Introduces the basic concepts used in cultural studies by studying the locations and uses of power in the education of the American public.

EDL 301 Student Development in Residence Halls (1)
Practical study of theories and techniques used in creating and maintaining learning environments that foster student growth and development in college residence halls. Includes student development theories, community development techniques, personal and environmental assessment, and strategies for influencing group living and behavior. Prerequisite: current resident assistant or permission of instructor.

EDL 302 Career Entry Skills and Post-College Planning (2)
Designed to assist students in making the transition from college to the world-of-work, service, self-employment, and/or graduate or professional school. Gain awareness of self and how skills, interests, and values impact career satisfaction and success, clarify career options and/or post-college opportunities, develop necessary job search correspondence and interview techniques and prepare for the transition from student life to professional life.

EDL 310 Career Counseling (2)
Practical study of career development and counseling; includes theories, techniques, and interventions. Use of career assessment inventories, computerized guidance programs, and written resources required. Consideration of student development theory leading to practice of basic counseling skills emphasized. Prerequisite: selected as career assistant in Student Counseling Service.

EDL 318 Teacher Leadership and School Organization (3)
This course is designed to challenge and shape students' conceptions of educational organizations and cultures; their professional development as teachers and/or educational staff members; as well as the acts of teaching, curriculum development, teaming and leadership. The course encourages the development of personal and professional theoretical frameworks and practical tools for enhancing awareness of and action in educational roles as decision-maker, curriculum-creator, inquirer, community member/builder, democratic citizen, team member, teacher and leader.

EDL 334 Youth Subcultures, Popular Culture, and the Non-Formal Education (3) MPT
Using contemporary social and educational theory, this course covers recent development in understanding youth cultures including work from England, the United States, and other countries. Focuses on youth subcultures and popular culture in the United States.

EDL 401 Cultural Studies and the Complexity of Empowerment (3) MPC
Through field experience and related readings in the field of cultural studies, students consider political and ethical considerations involved in helping relationships. Community service is a central component. Journals, class discussions, and readings integrate experience with theoretical understandings of power as it relates to race, class, gender, and other social categories. Students design, create, and present a project focusing on a particular problem that relates to issues encountered in the field placement and readings. Prerequisite: EDL 282 or permission of instructor.

EDL 450/550 Special Problems (1-3; maximum 9)
Individual research projects of varying length and complexity in school organization and education administration. Prerequisite: graduate standing or permission of department chair.

EDL 600 Independent Reading (1-3; maximum 9)
Planned reading in a field of educational leadership with guidance of a department member. Prerequisite: graduate standing and permission of department chair.

EDL 601 Educational Leadership Theory (3)
Study of theory and practice of educational leadership. Instructional strategies include case study, simulations, and tutorials. Integrates theory with issues of field-based practice. First in a series of four required courses. Prerequisite: graduate standing and permission of instructor.

EDL 602 The Principalship and Change (3)
Advanced study of the theory and practice of educational leadership and change. Instructional strategies include field-based problem-solving, case studies, simulations, and lectures. Second in a series of four required educational leadership courses. Prerequisite: successful completion of EDL 601 or permission of instructor.

EDL 603 Organizational Change (3)
Advanced course in educational leadership that is field-based. Students are actively involved with practitioners. Mentor relationships are established between students and field-based education leaders. Instructional strategies are tutorials and field experience problem-solving. Prerequisite: Successful completion of EDL 602 or permission of instructor.

EDL 607 School Law (3)
General study of public education law with particular emphasis on school law in Ohio. Major attention given to landmark cases and their effects upon public education.

EDL 609 Politics In Education (3)
Provides broad understanding of the political nature of educational governance and opportunities to explore specific political dynamics of the Ohio context.

EDL 614 Family-Community-School Partnerships (3)
Analysis of school-linked and community-based partnerships aimed at enhancing the well-being of children, youth, families and schools. Family-centered, culturally-responsive practice principles and empowerment strategies are emphasized. Cross-listed with FSW.

EDL 618 Teacher Leadership (3)
This course centers on the development of personal and professional theoretical frameworks and practical tools to help school support personnel become school leaders.

EDL 620 Research Projects (2-4)
Conference course. Individual research to satisfy a credit-hour research study for graduate credit. Offered infrequently.

EDL 621 Foundations of Multi-Cultural Education (3)
Using interdisciplinary approach, course investigates what multicultural education is and why and how it has become an integral part of public school education.

EDL 623 Philosophy of Education (3)
Graduate seminar exploring philosophical positions regarding education, focusing particularly on ethics and moral education in a democratic society.

EDL 625 Social Foundations of Education (3)
Relationship between education and social trends and intellectual developments that have influenced our civilization. Prerequisite(s): graduate standing in education or permission of instructor.

EDL 626 Developmental and Organizational Analyses of Women as Educational Leaders (3)
Examines concept of role expectations as they relate to women in leadership positions in education and those explicit and implicit measures associated with role adjustment and success. Prerequisite(s): graduate standing. Offered infrequently.

EDL 629 History of Education in America (3)
Origin and development of educational thought and institutions in the United States. Prerequisite(s): graduate standing or permission of instructor. Offered infrequently.

EDL 630 Applied Studies in Educational Administration (1-3; maximum 9 toward any degree; maximum 15)
Practicum focusing on contemporary administrative and organizational issues in schools, including data analysis, effective professional communication, and special education policies and procedures. Prerequisite(s): permission of instructor.

EDL 639 Curriculum Theory and Program Development (3)
General principles and practices of curriculum development and change; organizational patterns for developing curriculum and implementing curricular change. Prerequisite(s): graduate standing.

EDL 640 Applied Studies in Curriculum Improvement (3; maximum 10 toward any degree; maximum 18)
Practicum providing professional leadership for teachers, principals, and supervisors in school districts for study of curriculum problems. Designed to meet in-service needs; involves evaluation and improvement of the total curriculum approach. Emphasis upon modern theories of curriculum development as they apply to in-service growth and program improvement. Prerequisite(s): permission of instructor.

EDL 645 Supervision of Teaching (3)
Principles, methods, techniques, and problems of leadership in improving programs in elementary and secondary schools. Prerequisite(s): graduate standing; elementary, middle, or secondary curriculum course; or permission of instructor.

EDL 646 Curriculum Development for Instruction (3)
Curriculum organization procedures, evaluation and theory in preparation of educational leaders. A course blending theory and field experiences.

EDL 647 Curriculum and Cultural Studies (3)
Students will be exposed to cultural studies' perspectives of education, including critical media literacy and the role of popular culture in American education. Prerequisite(s): EDL 639.

EDL 648 Introduction to Research in Educational Leadership (3)
Students in this class learn contemporary educational research methods and develop skills to plan and complete a systematic action research inquiry into educational practice. The class

introduces students to research design, review of relevant literature, implementation, and evaluation.

EDL 649 Action Research for Educators (3)
Engages educators in action research as a way to study and improve, through informed decision-making, the dynamics of one's own practice. Culminates with a major action research project. Prerequisite(s): EDL 639, EDL 646, EDL 647 and EDL 648.

EDL 654 Foundations of Educational Research in Higher Education (3)
Introduction to the diverse theoretical foundations of education inquiry and exploration of the diverse approaches used in empirical educational research to enhance practice in student affairs/higher education contexts. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 656 Supervised Practice in Student Affairs (1-4)
Supervised practice in student affairs and higher education contexts. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 660 Seminar in Student Affairs/Higher Education (1-3)
Focuses on specialized topics in student affairs in higher education. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 661 Quantitative Research in Higher Education (3)
Introduction to quantitative research in student affairs/higher education. Explores implications for disciplined inquiry in higher education (e.g., research, assessment, and evaluation). Prerequisite(s): EDL 654 and enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 666 Student Cultures in the College Environment (3)
Overview of studies conducted on the formation and development of college student cultures. Particular emphasis upon understanding student cultures and their relationship to student affairs practice. Prerequisite: EDL 676 and enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 676 Introduction to Student Affairs (3)
Focuses on the historical, philosophical and theoretical foundations of student affairs. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 677 Student Development Theory I (3)
Study of basic theoretical perspectives underlying college student development, assessment of development, and application of theory to student affairs practice. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 678 Student Development Theory II (3)
In-depth study and critique of selected student and adult development theories, assessment of students' development of those theories, and application to student affairs practice. Prerequisite(s): EDL 677 and enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 679 Higher Education in the United States (3)
Past and present issues and events that shaped the purpose, scope, and diversification of higher education in the United States. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 681 Student Affairs Administration (3)
Experiential approach to the study of administration in student affairs organizations. Case studies, workshops, and small group assignments used to develop skills in leadership, staff evaluation, supervision, and planning and management of change. Prerequisite(s): Enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 683 Qualitative Research in Higher Education (3)
Introduction to the field of qualitative (i.e., interpretive) research in student affairs and higher education and explores implications for disciplined inquiry in education (e.g., research, assessment, and evaluation). Prerequisite(s): EDL 654 and enrolled in M.S. or Ph.D in SAHE or permission of instructor.

EDL 700 Thesis (1-10; 6 required, maximum 10)
Available for M.A. program in educational leadership. Conference course with departmental adviser. Prerequisite: plan of work approved by adviser and department chair.

EDL 701 Theory and Philosophy of Educational Administration (3)
Philosophical bases and theoretical constructs in educational administration, examining relationships between theory and different organizational patterns and administrative practices. Prerequisite(s): EDL graduate program admission or permission of the instructor.

EDL 706 Educational Leadership and Organizational Development (3)
Study of concepts, literature, and research in leadership and its relationship to the development and maintenance of the organization. Prerequisite(s): EDL graduate program admission or permission of the instructor.

EDL 710 Internship in Educational Leadership (3)
Planned program of leadership responsibilities in an educational institution or agency with major emphasis on participation in practical applications of roles associated with school administration. Enrollment only after contact with the internship director.

EDL 711 Internship in Curriculum Planning and Supervision (1-3)
Planned program of experiences in curriculum development with emphasis on practical application of roles. Prerequisite(s): EDL 639 and EDL 645. Offered each semester and during the first scheduled summer term. Enrollment may be made only after contact with internship director.

EDL 721 Pupil Personnel Services (3)
Organization and analysis of pupil services offered to a school district. Current issues, especially legal and ethical, are examined.

EDL 723 Public School Finance (3)
Local, state, and federal systems of financial support for education. Addresses basic revenue and allocation issues from a national and an Ohio perspective.

EDL 725 School Staff Personnel Administration (3)
Basic course in school personnel sequence; emphasis on licensed staff; recruitment, supervision, evaluation, staff development, collective bargaining, and employer-employee relationships.

EDL 727 School Business Affairs and Physical Resources (3)
Basic principles and procedures of business management as they relate to educational institutions and agencies, including budgeting, purchasing, maintenance, management of school facilities, educational specifications, enrollment projections, capacity and utilization, and auxiliary services.

EDL 729 Board-Superintendent-Staff Relationships (3)
Case study and simulation approach to the identification and analysis of interrelationships, conflicts, and effects of employee organizations and pressure groups on educational decision making and policy formulation.

EDL 730 School Surveys Practicum (3)
Action research with field orientation to in-service activities of class members; survey research methods applied to practical problems. Required for students minoring in educational research; may be included in plan of work for post-master's degrees. Schedule of activities arranged. Prerequisite: permission of instructor or graduate standing in educational leadership. Offered infrequently.

EDL 731 Learning Partnerships & Transformational Learning (3)
Introduction to learning as personal transformation for social change and social justice. Interdisciplinary perspectives on learning in higher education: role of college student development, diversity, and culture in learning; role of higher education organizations and structures in learning; historical perspective on higher education learning; global implications for college learning. Prerequisite: SAHE major or permission of instructor.

EDL 741 Perspectives on College Learners' Experience (3; maximum 6)
Exploration of college learners' experience from multiple disciplinary perspectives including history, comparative education, anthropology, and developmental psychology. Each seminar offering will include two of these perspectives. Repeatable up to 6 credits. Prerequisite: SAHE major or permission of instructor.

EDL 745 Perspectives on Higher Education Learning Contexts (3; maximum 9)
Exploration of college learning contexts from multiple disciplinary perspectives including history, social foundations, comparative education, anthropology, organizational theory, and developmental psychology. Each seminar offering will include two of these perspectives. Repeatable up to 9 credits. Prerequisite: SAHE major or permission of instructor.

EDL 750 Advanced Independent Reading (1-3; maximum 9)
Independent readings appropriate for advanced graduate students. Cannot earn more than nine hours credit toward minimum requirements for any one degree with combination of EDL 600 and EDL 750. Prerequisite(s): post-master's standing.

EDL 751 Social & Political Engagement in Higher Education (3)
Explore philosophical theories and discourses to address moral and political questions regarding the ultimate aims of post-secondary education, focusing primarily on the United States 2- and 4-year college and university system. Opportunity to integrate and synthesize understanding of learning, learners, and learning contexts into a professional philosophy of education. Prerequisite: EDL 731 and SAHE major or permission of instructor.

EDL 761 Introduction to Doctoral Study in Educational Leadership (3)
An orientation to doctoral study in educational leadership, emphasizing goal setting, research skills, and studying in a diverse community. Prerequisite(s): admission to EDL doctoral program.

EDL 771 Educational Policy Analysis (3)
Provides broad understanding of educational policy considerations of formulation and implementation of decisions. Conceptual and methodological conclusions about the complex nature of educational governance and organizational analysis are examined.

EDL 772/773 Advanced Research Design (3)
Introduction to Quantitative Research in education. Students identify a research problem and apply analytic and design skills necessary to develop a dissertation proposal.

EDL 775 Theoretical Foundations of Educational Inquiry (3)
Seminar to explore major theoretical foundations used in educational research. Examines different educational researchers conceive of the concepts of knowledge and social reality and how those concepts affect educational research. Prerequisite: EDL 772.

EDL 776 Research/Inquiry Practicum in Student Affairs/Higher Education (3; max 6)
Conduct supervised research with faculty. Students will gain hands-on experience in all aspects of research process including: framing research questions, choosing methodology and methods appropriate to the research question, Institutional Review Board approval, data collection, data analysis and interpretation, and scholarly writing. Prerequisite: EDL 654; SAHE major or permission of instructor.

EDL 780 Advanced Seminar in Educational Administration (1-5; maximum 15)
Various topics of current interest. Prerequisite(s): permission of instructor.

EDL 796 Practicum in Curriculum and Supervision (3)
A semester of field laboratory in a public school system to apply supervisory and curriculum leadership skills. For practicing and prospective supervisors and curriculum leaders at doctoral level, focusing on solving practical problems involving group leadership skills and principles of curriculum development. Seminar sessions follow practical application experience. Prerequisite(s): EDL 639 and EDL 645, or permission of instructor.

EDL 850 Doctoral Dissertation (1-16 required; maximum 60 depending on department requirements)
Prerequisite(s): doctoral admission by department and permission of adviser.

EDUCATIONAL PSYCHOLOGY COURSES (EDP-Education, Health and Society)

EDP 101 Critical Issues in the Psychology of the Learner (3) MPF
Critical investigation of issues, theories, and principles related to the nature of the learner and learning process, including such topics as psychological methodology, perception, cognitive processing, personality, and social dynamics, within the context of historical, social diversity, and cross-cultural perspectives. Credit not granted to students who have earned credit in PSY 111. IIC. CAS-C.

EDP 201 Human Development and Learning in Social and Educational Contexts (3) MPF
In-depth examination of theoretical issues and principles of human development and learning, including developmental changes, motivational and learning processes, exceptionalities and other individual differences, and dynamics of social groups. The ways human development and learning can be fostered within diverse social and educational contexts and the interactive influences of contextual differences on direction and nature of these processes are a major focus for systematic inquiry. **Note:** For Miami Plan credit, register for 201P. Majors and pre-majors register for section appropriate to your licensure area. IIC. CAS-C.

EDP 209 Development, Learning & Diversity (3) MPF
A student-centered multicultural exploration of existing and mythical differences perceived within and between U.S. cultural groups that are significant for human development and education such as language, intelligence, cognition, aptitude, motivation, personality, values, and attitudes. IIIA.

EDP 220 Field Experience in Special Education (1)
Structured experiences for students to visit special education settings and inclusive settings serving individuals with a variety of exceptionalities, including early childhood, middle childhood, and adolescence. Restricted to special education pre-majors. Pre or co-requisite: EDP 256.

EDP 221 Technology in Education (1)
This course is designed to meet many of the NCATE/ISTE standards for Teachers. Course content is relevant only to those seeking licensure as P-12 teachers. Co-Requisite: EDP 222.

EDP 222 Technology in Education Lab (2)
Lab course designed to meet many of the NCATE/ISTE standards for Teachers. Course content relevant only to those seeking licensure as P-12 teachers. Co-Requisite: EDP 221.

EDP 225 Games and Learning (3)
Surveys and assess the role of gaming within educational research. Topics covered include: games and literacy, designing games for schools, and the learning implications of gaming culture. Cross-listed with IMS 225.

EDP 240 Technology Integration Basics for Teachers (1)
Series of one-credit courses to develop appropriate basic technology skills in the context of teacher uses and applications. Provides a foundation for on-going development of technology skills and skills in integrating technology into teaching. Check course schedule for each semester's offerings.

EDP 256 Psychology of the Exceptional Learner (3) MPT
Critical analysis of human beings considered exceptional (outside the norm) in learning and behavior. Topics include inter- and intra-individual differences comprising exceptionalities, issues surrounding identification and classification of individuals, society's responses to exceptional individuals, and societal challenges to develop the human potential of all persons.

EDP 272 Introduction to Disability Studies (3) MPF
Explores the link between the social construction of disability and that of race, class, gender, ethnicity, and sexual orientation as they pertain to social justice in a multicultural and democratic society. Promotes critical analysis of dominant and non-dominant perspectives on disability. IIIA.

EDP 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)
Provides a critical analysis of the historical, sociological, cultural, media and educational images and representations of women with disabilities. Current research and theories from Disabilities Studies and Women's Studies will serve as the lenses for the exploration of disability as a social construct. The course will focus on exploration of oppressive social forces embedded in the re/presentations of and by women with disabilities which transform and complicate such images. Cross-listed with DST/SOC/WMS 278.

EDP 301 Assessment and Evaluation in Educational Settings (3)
Application of measurement principles in the assessment of individual differences and learning in educational environments. Includes: formative, summative and diagnostic testing, instructional objectives and classroom tests, judging complex performance, and social and political issues with administration and interpretation of evaluation instruments. Prerequisite: EDP 101 or 201 and junior standing.

EDP 375 (Dis)Ability Allies: To be or not to be? Developing Identify and Pride from Practice (3)
Explores what it means to be ally to/in/with the disability community in America. The course emphasizes identity formation and how that formation can inform the construction of the ally identity. Through deconstructing learned values, knowledge, and images of disability that mitigate ally behavior, students discover the micro and macro structures that support ally behavior. By exploring how social control and social change have worked in other civil rights movements, students understand the necessity of identifying and including allies in the disability movement for civil rights. Cross-listed with DST/SOC/WMS 375.

EDP 378 Media Illusions: Creations of "The Disabled" Identity (3)
Provides a critical analysis of past and present media constructions of persons with disabilities. Through exploring theory and research from diverse disciplines (communication, sociology, gerontology, educational psychology and others), students explore how perceptions of persons with disability are formed and analyze how the media is implicated in creating, distorting, and reflecting stereotypical and fictionalized images of disability. The course analyzes how these images shape public perception and reproduce the unequal power and privilege relationships that maintain the status quo while providing resources and techniques for the provision of alternative images of disability in various media genres. Cross-listed with DST/COM/SOC/WMS 378.

EDP 402/502 Individuals With Special Gifts and/or Talents: Social, Educational, and Legal Issues (3) MPT
Introduction to historical background, characteristics, and psychology of gifted and talented individuals. Methods for identifying and evaluating this exceptionality examined.

EDP 419E Supervised Teaching in Programs for Early Childhood Intervention Specialist Licensure (15)
Includes regularly scheduled seminars with university supervisor. Frequent conferences held with cooperating teacher. Prerequisite: all EDP and required EDT methods classes.

EDP 419F Supervised Teaching in Programs for Mild/Moderate Intervention Specialist Licensure (15)
Includes regularly scheduled seminars with university supervisor. Frequent conferences held with cooperating teacher. Prerequisite: all EDP and required EDT methods classes.

EDP 419G Supervised Teaching in Programs for Moderate/Intensive Intervention Specialist Licensure (15)
Includes regularly scheduled seminars with university supervisor. Frequent conferences held with cooperating teacher. Prerequisite: all EDP and required EDT methods classes.

EDP 419H Supervised Teaching in Programs for Gifted Intervention Specialist Licensure (15)
Includes regularly scheduled seminars with university supervisor. Frequent conferences held with cooperating teacher. Prerequisite: all EDP and required EDT methods classes.

EDP 430/530 Assessment and Educational Planning for Early Childhood Special Education: Birth-3 (2)
Introduction to assessment processes appropriate for infants and toddlers who are at biological or environmental risk for developmental delay and/or have established risk (identified handicapping condition). Includes information on child find and early screening procedures and on transdisciplinary diagnostic assessment methods that use observational, psychometric, and interview techniques. Experience in using assessment methods, developing individualized family services plans using assessment data, and evaluating children's progress. Prerequisite: EDP 201, 256.

EDP 431/531 Assessment and Educational Planning for Early Childhood Special Education: Ages 3-5 (2)
Introduction to assessment processes appropriate for young children from 3-5 who are at biological or environmental risk for developmental delay and/or who have established handicapping conditions. Includes information on child find and early screening procedures and transdisciplinary diagnostic assessment methods that use observational, psychometric, and interview techniques. Experience in using assessment methods, developing individual educational plans using assessment data, and evaluating children's progress.

EDP 432/532 Assessment and Educational Planning for Children: Ages 3-8 (3)
Discusses development and use of formal and informal assessment instruments and procedures, including observational, authentic, performance-based, classroom test, and standardized methods to plan curriculum and teaching practices with attention to interaction of individual differences with learning environments for young children who are developing typically, have disabilities, or are at biological or environment risk for developmental delay. Emphasizes interdisciplinary, transdisciplinary, and multifactored approaches to assessment, developing individualized educational plans, and planning curriculum objectives based on assessment information. Early childhood undergraduates must take concurrently with junior field block. Prerequisite: EDP 201.

EDP 440/540 Practicum in Integrating Technology into Instruction (1)
Learn to integrate technology into curriculum and instruction. Explore approaches to learning that best use technology as powerful tools for learning. As a culminating experience, plan, peer teach, and evaluate an instructional project using technologies to support and enhance identified learning outcomes. Prerequisite: one credit hour of EDP 240 or CSE equivalent; or EDP 543, and at least junior standing. (Required for Ohio teaching license: at least three hours of CSE 101, EDP 240, or EDP 443; and one hour of EDP 440/540). Co-requisite: professional methods course, if possible.

EDP 443/543 Audiovisual Instruction: Methods, Media, and Technology (3)
Develops media skills that aid communication. Stresses selection, use, and preparation of educational media in instructional planning. Includes laboratories in basic production processes and equipment operation. Because of greater content and additional projects, this course may be substituted for technology requirement.

EDP 444/544 Teaching Social and Affective Skills to Children and Youth with Exceptionalities (3)
Integration of assessment, instructional strategies, and orientation as it relates to social skills, affective behavior, and self-esteem. Stresses skills necessary to get along with others in inclusionary social settings. Methods for maintaining positive social mental health and self-esteem also discussed.

EDP 450/550 Special Problems (1-4)
Course in varying special topics areas.

EDP 454/554 Mathematics Curriculum & Adaptations for Children with Mild/Moderate Disabilities (3)
Provides instruction on mathematics curriculum, methods, and materials for adapting instruction for individuals with mild/moderate exceptionalities in various educational settings, K-12. Emphasizes developmentally, culturally, and individually appropriate adaptations in mathematics with a goal toward giving students access to and success with general educational standards in the curriculum. Co-requisite(s): EDP 494 and EDP 459 and EDP 496. Prerequisite(s): EDP 256 and EDP 491.

EDP 455/555 Team Approaches in Educational and Human Service Fields (2)
Focuses on structure and function of team models in education and related disciplines and methods of working collaboratively with professionals and families to further the development and learning of children and youth with primary emphases on team approaches used with young children and with children and youth who have disabilities or who are at risk for developmental delays. Provides opportunities for demonstration and practice of skills needed for effective interdisciplinary and transdisciplinary teamwork. Includes observation and participation with actual team processes in field settings.

EDP 457/557 Individuals with Mental Retardation: Social, Educational, and Legal Issues (3) MPT
Provides basic knowledge of mental retardation with an emphasis on individuals who display developmental as well as multiple handicaps. A review of current educational interventions and a critical analysis of the most relevant past and present educational, social, and legal issues in this area. Prerequisite: EDP 256.

EDP 458/558 Curriculum Methods for At-Risk and Multihandicapped Infants and Children (2)
Focuses on curricular and instructional strategies for supporting infants, young children, and youth who have moderate/ intensive needs in inclusive settings. Emphasizes planning and implementing developmentally, culturally, and individually appropriate practices and methods for making specific adaptations and accommodations in inclusive settings. Prerequisite: EDP 457/557. Co-requisite: EDP 459G/559G.

EDP 459/559 Practicum in Special Education (3)
Provides guided field experiences in instructing children with mild/moderate disabilities. Focus is on application of theory and research in curriculum development, educational technology, applied behavior analysis, assessment, and the development of instructional skills. Prerequisite: EDP 256. Co-requisite: EDP 495.

EDP 459F/559F Practicum in Special Education: Mild/Moderate (1)
Provides guided field experience in instructing children with mild/moderate disabilities. Focus is on the application of theory and research in curriculum development, educational technology, applied behavior analysis, and the development of instructional skills. Prerequisite: EDP 493 or 457/557 or 492/592. Co-requisite: EDP 495/595.

EDP 459G/559G Practicum in Special Education: Moderate/Intensive (1)
Provides guided field experience in instructing children with moderate/intensive needs. Focus is on the application of theory and

research in curriculum development, educational technology, applied behavior analysis, and the development of instructional skills. Prerequisite: EDP 457/557. Co-requisite: EDP 458/558.

EDP 459H/559H Practicum in Special Education: Gifted (1)
Provides guided field experience in instructing children with special talents and/or giftedness. Focus is on the application of theory and research in curriculum development, educational technology, applied behavior analysis, and the development of instructional skills. Prerequisite: EDP 402. Co-requisite: EDP 495/595.

EDP 460 Action Research/Problem-Based Seminar in Exceptional Education/Developmental Differences (3) MPC
Provides opportunity to develop, implement, and evaluate an action research or action service project related to identification, psychology, education, and/or treatment of individuals whose development is exceptional. Provides intensive seminar; instructor and peers share the research/problem-solving process and prepare written and oral reports that describe the project and document the student's accomplishments. Prerequisite: senior standing. Offered infrequently.

EDP 471/571 Literacy Seminar: Clinical (3; maximum 6) MPC
Problem-based seminar designed to provide opportunities for students to learn, practice, and evaluate instructional approaches to teaching literacy skills (reading, writing, and spelling) to school-age children with written language disabilities. Students receive intensive training in literacy and work in tutorial settings. Seminar discussions focus on issues of literacy skills, and approaches for working with these children. Prerequisites: EDP 256 and either EDP 494 or EDP 303.

EDP 472/572 Literacy Seminar: Practicum (3; maximum 6)
Explores reading methods and strategies outside of the standard for learners with excptionalities; explores technology as a means to accessible literacy. Prerequisite(s): EDP 256 and either EDP 494 or EDP 303.

EDP 476/576 Functional and Transitional Living Skills Curriculum Methods for Individuals with Disabilities (2)
Focuses on integration of assessment, curriculum methods, and instructional strategies with the goal of life success both during childhood/adolescence and adulthood. Functional curriculum for individuals with disabilities that stresses life success and transition from school to adulthood in the areas of employment and independent living.

EDP 478/578 Consultation and Collaboration in Special Education (3)
Examines impact of exceptionality on families using a family systems approach. Emphasizes home-school relationships, resource assistance, and collaboration between professionals and parents. Emphasizes communication and collaboration skills.

EDP 481/581 Adolescent Development in Diverse Families (3) MPT
Provides a broad interdisciplinary examination of the field of adolescent development from contextual and cross-cultural perspectives. Focus includes sensitivity to racial, ethnic, and cultural diversity while studying persons 10 to 20 years of age within family systems. Cross-listed with FSW.

EDP 482/582 Teaching Gifted Students (3)
Introductory course to explore teaching and learning strategies and materials for instruction of gifted children. Prerequisite: junior standing. Offered infrequently.

EDP 483/583 Serious and Educational Game Design and Simulations (3)
This course offers students the opportunity to explore the use of games and simulated environments for teaching and learning. The three main topics investigated in this course are: (a) the integration of popular games for teaching and learning, (b) serious and educational games, and (c) the integration of game design elements for teaching and learning. In addition, this course aids students in understanding how learning theories can inform the design of serious and educational games for instructional design. Prerequisites: Junior/Senior or Graduate Standing.

EDP 489 Disability in Global and Local Contexts (3) MPC
Examines contemporary disability issues and policies and the lived experiences of persons with disabilities in international and local contexts, with emphasis on understanding disability within particular communities-both locally and in other countries- and on learning multiple research methods. Cross-listed with ENG/SPE/DST/SOC/COM 494. Prerequisite(s): Permission of instructor.

EDP 491/591 Teaching Students with Mild and Moderate Disabilities (3)
Education of children, youth, and young adults with mild/moderate disabilities provides an historical overview of Learning Disabilities, Mild Cognitive Disabilities and Behavior Disorders ,a knowledge base and introduces skills necessary for the teacher in contemporary educational environments to plan for the education of students with mild/moderated disabilities.

EDP 492/592 Individuals with Behavior and/or Emotional Disturbance: Social, Educational, and Legal Issues (3) MPT
Focuses on etiology, psychology, and behavioral characteristics of individuals identified as having severe behavioral and/or emotional disturbances. Students examine a variety of theoretical bases for assessment and practice. Manifestations of, needs, and general principles of interventions for selected behavioral and emotional disturbances explored. Students analyze the relative effectiveness of a variety of treatment settings and modalities, including psychopharmacological treatment. Emergent professional issues related to the promotion of mental health and prevention of emotional and behavioral disorders described. Prerequisite: EDP 256.

EDP 493/593 Individuals with Specific Learning Disabilities: Social, Educational, and Legal Issues (3) MPT
Emphasis on current research, historical background, etiologies, and characteristics of individuals with specific learning disabilities. Models of physiological, sociological, ecological, and behavioral approaches to understanding and addressing the needs of these individuals and the contexts influencing policies and practices are critically examined. Prerequisite: EDP 256.

EDP 494/594 Assessment, Evaluation, and Educational Planning for Learners with Exceptionalities (3)
Construction and use of formal, informal, and authentic assessment related to adapting content and teaching strategies in reading, spelling, writing, oral communication, mathematics, and other areas for children and youth with exceptionalities (including individuals with mild/moderate and moderate/intensive needs; gifted).

EDP 495/595 Inclusion & Adaptations for Mild/Moderate and Gifted Needs: Multi-Age (3)
Provides instruction on adapting curriculum, methods, and materials for individuals with mild/moderate exceptionalities and/or giftedness in inclusive settings, K-12. Emphasizes developmentally, culturally, and individually appropriate adaptations in reading, math, social studies, science, and language arts. Co-requisite: EDP 459F/559F, 459G/559G, or 459H/559H.

EDP 495E/595E Inclusion and Adaptations for Mild/Moderate and Gifted Needs: Early Childhood (3)
Provides instruction on adapting curriculum, methods, and materials for individuals with mild/moderate exceptionalities and/or giftedness in inclusive settings. Emphasizes adaptations in reading, math, social studies, science, and language arts as developmentally and culturally appropriate for early childhood (ages 3 to 8). Co-requisite: EDP 459E/559E.

EDP 496/596 Behavioral Interventions: Theory, Principles, and Techniques (3)
Emphasizes theoretical foundations of the behavioral model with supporting research. Presents a variety of proactive techniques for increasing appropriate behavior and for prevention and reduction of problematic behaviors. Emphasizes positive, proactive treatment approaches using the least restrictive treatment model for individual and group interventions. Addresses applications for individuals with exceptionalities mild/moderate, moderate/intensive, and gifted. Co-requisite: specialist methods block (EDP 495/595).

EDP 600 Independent Reading (1-5; maximum 8 toward any one degree)
Planned reading in any field related to educational psychology with faculty guidance. Prerequisite: regular standing in graduate school, eight hours in education including four hours graduate credit, and approval of plan by department chair.

EDP 601 Advanced Educational Psychology (3)
Prepares student to critically evaluate existing educational practice and to innovate sound practices in light of theoretical and empirical findings of educational psychology. Prerequisite: eight hours of education including educational psychology.

EDP 603 Theories of Human Learning (3)
Examines major theoretical perspectives concerning the process of how human beings learn. Historical, as well as contemporary views of the biological, behavioral and cognitive bases of human learning

are presented. Considers how cultures (ethnic, gender, and systemic) influence the process and mode of learning. Involves direct application of theoretical approaches to classroom instruction. Critical analysis of these theories and current research are emphasized to facilitate students' understanding of the complex process of learning.

EDP 604 Role and Function of the School Psychologist (3)
Survey of current practices in the field of school psychology and examination of emerging models. Attention to school psychological service in the organization of schools, relationships with other pupil personnel workers, ethics, state standards, and various other related issues. Prerequisite: admission to school psychology program or permission of instructor.

EDP 605E Supervised Field Experience: Early Childhood Intervention Specialist (5-10)
Full-time supervised field experience in student's area of specialization. Experience provided at early, middle, and/or adolescent levels within current program models and standards. Prerequisite: admission to graduate program in special education and completion of all course work in the licensure area.

EDP 605F Supervised Field Experience: Mild/Moderate Intervention Specialist (5-10)
Full-time supervised field experience in student's area of specialization. Experience provided at early, middle, and/or adolescent levels within current program models and standards. Prerequisite: admission to graduate program in special education and completion of all course work in the licensure area.

EDP 605G Supervised Field Experience: Moderate/Intensive Intervention Specialist (5-10)
Full-time supervised field experience in student's area of specialization. Experience provided at early, middle, and/or adolescent levels within current program models and standards. Prerequisite: admission to graduate program in special education and completion of all course work in the licensure area.

EDP 605H Supervised Field Experience: Gifted Intervention Specialist (5-10)
Full-time supervised field experience in student's area of specialization. Experience provided at early, middle, and/or adolescent levels within current program models and standards. Prerequisite: admission to graduate program in special education and completion of all course work in the licensure area.

EDP 606 Counseling the Gifted (2)
Counseling approaches for the gifted student. Includes study of special counseling needs of gifted, their families, and support groups.

EDP 607 Educational Measurement and Evaluation (3)
Principles of measurement and evaluation applied to educational contexts. Includes instructional objectives, construction of teacher-made tests, assessing complex performance, determining grades, standardized testing, measuring individual differences, and using test data for decision-making.

EDP 611/612 Psychoeducational Assessment and Interventions I, II (5, 5)
Provides foundation in a variety of assessment areas and methodologies that lead to development, implementation, and evaluation of interventions. The school psychologist is viewed as a scientist practitioner using a problem-solving orientation in working with students experiencing behavioral and/or academic problems. Emphasis on analyses of assessment information with the goal of developing successful interventions. Prerequisite: admission to school psychology program.

EDP 620 Research Project (1-3)
Individual research to satisfy research project requirement for master's degree. Prerequisite: EDP 651, 667, and permission of department chair.

EDP 621 Classroom Group Behavior (3)
Analysis and solution of problem behaviors associated with groups in the classroom. Includes dynamics of school groups, cohesiveness, conformity, deviance, leadership, communication, attitudes and attitude change, group influences on motivation and achievement, and social problem solving.

EDP 631 Introduction to Instructional Design and Technology (3)
This introductory course provides an overview of Instructional Design and Technology (IDT) and an overview of the Master's program and paths student might take in their program. Students will learn about internships, thesis projects, and the research thesis. Each IDT course will be identified and explained. Some software will be introduced.

EDP 632 Instructional Design Theory and Models (3)
This course provides an opportunity for students to analyze, synthesize, and evaluate instructional design models based on learning theories and principles, while taking into account various situations and differences of learners. Students will acquire the knowledge, skills, and abilities necessary to provide leadership in the area of instructional design.

EDP 633 Evaluation and Assessment for Instructional Design (3)
Evaluation and Assessment provides students with theories and practice related to needs assessment, formative and summative evaluation. At the end of the semester students should be able to assess and evaluate instructional media.

EDP 634 Grant Writing in Instructional Technology (3)
Students will have an opportunity to find grant funding sources, write a grant, and learn how to submit an actual grant proposal to an agency or foundation for consideration. The class will investigate current issues and topics related to research and grant writing in instructional media.

EDP 635 Theories of Human Development (3)
Involves broad perspective of human development with primary focus upon theories as well as historically significant and contemporary research. Theoretical and research applications considered within the context of educational settings and in other areas of helping professions.

EDP 637 Distance Learning (3)
This course teaches current distance education concepts and current distance education methods and practices for encouraging reflective decision-making. In addition, this course aids students in the development of distance education concepts: theory, administration, programs, methods and curriculum development.

EDP 638 Computer Networks for Education and Training (3)
This course is targeted for the K-12 environment in which technology coordinators and technologically savvy teachers may be called upon to advise school districts about basic network infrastructure. The course provides enough expertise to design network infrastructures that will facilitate school learning in ways acceptable to student learning needs.

EDP 639 Issues and Trends in Instructional Design and Technology (3)
The intent of the course is to acquaint instructional technologists, teachers and administrators with critical challenges posed as a result of the increasing infusion of technology into the school and training environments. Students will exchange ideas about issues and trends with others through reports and leading discussions.

EDP 640 Seminar in Applied Human Development (3)
Consideration of specialized topic in depth from current literature in developmental theory and practice. Provides integration of practice-level intervention with theoretical conceptions. Includes observational and methodological components. Summer only.

EDP 641 Principles of Visual Literacy (3)
This course is designed to provide participants with a sense of how visual images can be employed in the instructional design process. Digital photography, Photoshop, and other imaging software are vehicles for studying the use of visual images in training and education.

EDP 642 Video Production for Education & Training (3)
This course focuses on developing an understanding of film and video media and the relationship of this media/medium to learning. While the emphasis will be on educational application, this course will also look at how video can be a tool for research and to enhance teaching practice.

EDP 643 Interactive Design (3)
This course focuses on developing an understanding of theory and production of interactive design primarily for teaching and learning. While the emphasis will be on educational and training application, this course will also look at how interactive media can be used in non-traditional educational environments.

EDP 644 Foundations in 3-D Design and Technology (3)
This course focuses on developing an understanding of three-dimensional design and animation. While the emphasis will be on modeling, lighting, texturing and animation, work created during this course will serve as a tool for comprehending the underlying processes of 3-D design and animation.

EDP 645 Curriculum and Technology (3)
This class is designed to support P-12 educators in addressing the mutual impact of technology and curriculum and integrating technology to enhance teaching and learning. The focus is to produce teacher-created, learner-centered materials for effective technology integration. Class participants will work both independently and collaboratively to develop curriculum and to design a project that integrates technology for effective teaching or learning.

EDP 650 Seminar in Special Education (3)
In-depth study of specific topics in education of exceptional children and youth. Maximum hours toward graduate degree in special education are 16. Topics will be announced. Prerequisite: permission of instructor.

EDP 651 Educational Research (3)
Introduction to and critical study of research practices and reporting processes.

EDP 652 Educational Research Practicum (3)
Practicum in research. Prerequisite: EDP 651.

EDP 654 Counseling & Mental Health Practicum (4)
Supervised counseling experience. Prerequisite: EDP 672 and permission of instructor.

EDP 655 Theory and Problems in Educational Measurement (3)
General concepts of reliability and validity and their implications in educational measurement are discussed. Interpretations and misinterpretations are presented with regard to standardized testing as well as seminar approaches to current issues and problems in educational measurement. Prerequisite: EDP 667.

EDP 656 Education of Individuals with Exceptionalities (3)
Advanced analysis of each exceptionality from an educational point of view. Topics include inclusion, inter- and intra-individual differences comprising exceptionalities, issues surrounding identification, classification of individuals, society's responses to exceptional individuals, and societal changes to develop the human potential of all persons.

EDP 657 Educational Curricula and Strategies for Exceptional Individuals (3)
Emphasis on educational curricula and strategies for mildly exceptional individuals. Theories of information processing, language, reading, writing, spelling, quantitative skills, and social learning examined. Implications for curricular planning and selection of instructional materials considered.

EDP 658 Advanced Evaluation with Evidence-Based Interventions (3)
Oriented toward the development of competencies in diagnostic-prescriptive teaching including selection, administration, interpretation, and recommendations based on assessment information. Focuses on common educational tests administered to children and youth with exceptionalities. Special attention to preschool populations and issues surrounding test fairness. Summer only.

EDP 660 Practicum in School Psychology Practice (3)
Supervised practice using a variety of diagnostic/consultative procedures to discover nature and underlying causes of school difficulties and familiarization with current school psychology practice. Prerequisite: at least 10 hours credit in study of individual psychological tests and approval of instructor.

EDP 662 Personality Theories, Measures, and Techniques (3)
Discussion of normal and abnormal personality with emphasis on personality structure and dynamics of school aged children. Introduction to certain personality measures/techniques and implications for their use are examined. Prerequisite: permission of instructor. Summer only.

EDP 666 Educational Community Psychology: Consulting and Interviewing (3)
Application of community psychology to the school setting. Utilization of community and school resources in the resolution of problems involving children and adolescents. Methods, techniques, and skills in professional interviewing, consultation, and in-service mental health practices. Prerequisite: admission to the school psychology program and EDP 604.

EDP 667 Behavioral Statistics I (3)
Basic concepts of descriptive and inferential statistics. Stresses logical interpretation of results.

EDP 669 Qualitative Research in Educational Psychology (3)
Offers a case study approach (as opposed to ethnography or action research) to qualitative research consistent with educational psychology research methods. Prerequisite: graduate standing.

EDP 672 Counseling Theories & Mental Health Intervention (3)
Developing understanding of the nature of the counseling relationship. Prerequisite: graduate standing.

EDP 675 Introduction to Group Counseling (3)
Didactic and experiential introduction to group counseling. Working knowledge of the process and function of counseling groups. Establishing counseling groups, formation and developmental stages, group leadership, and preparation for groups. Prerequisite: EDP 672, graduate standing, and permission of instructor.

EDP 690 Seminar in Educational Psychology (1-3)
Varying topics in educational psychology. Prerequisite: EDP 601 or permission of instructor.

EDP 695 Supervised Public School Experience for School Psychology Students (1)
Thirty clock hours of on-site observation/participation per credit hour in public schools at a variety of grade levels, including various cultural/ethnic settings and special education classes. Prerequisite: permission of instructor.

EDP 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)
Required for M.A. program. Prerequisite: permission of instructor.

EDP 795/796 Internship for Educational Specialist Degree in School Psychology (10, 10)
Full-time experience with supervision of university faculty and qualified school psychologists in selected school districts. Prerequisite: completion of all regular courses in the educational specialist curriculum and permission of department chair.

EDP 800 Specialist Degree (1-10)

ELECTRICAL AND COMPUTER ENGINEERING COURSES (ECE-Engineering and Applied Science)

ECE 205 Electric Circuit Analysis I (3)
Study of electric circuits and networks. Includes resistive circuits and first-order transients. Emphasizes the basic principles and their application to circuit analysis using calculus and linear algebra. Prerequisite: PHY 182. Concurrent course: MTH 249 or MTH 251 or MTH 257H. 2 Lec 1 Lab.

ECE 278 Computer Architecture (3)
Principles of Von Neumann computer architecture. Data representation and computer arithmetic. Memory hierarchy. CPU structure and instruction sets. Assembly language programming to better understand and illustrate computer architecture concepts. Performance considerations and alternative computer architectures. Prerequisite: CSE 271 or equivalent. Cross-listed with CSE 278.

ECE 287 Digital Systems Design (4)
Topics include switching algebra and switching functions, logic design of combinational and sequential circuits using TTL, combinational logic design with MSI and LSI, busing, flip-flops, registers, counters, programmable logic devices, memory devices, register-level design, and microcomputer system organization. Students must show competency in the computer-aided design (CAD) and laboratory implementation of digital systems. 3 Lec. 2 Lab.

ECE 303 Computer-Aided Experimentation (4)
Advanced topics in electric circuit analysis are combined with an in-depth study of theory and application of instrumentation and experimentation; power analysis, transformer principles, frequency response and filters, second order systems, Laplace transform, and signal conditioning circuits are covered as well as components, and concepts of computer-machine interface systems; design of computer-controlled experimentation for real-time measurement, monitoring, and control of automated-industrial processes. Prerequisite: ECE 205, MME 211, STA 368 or STA 301. 3 Lec. 1 Lab. Cross-listed with MME 303.

ECE 304 Electronics (3)
Analysis and design of electronic circuits and subsystems; study of diodes, transistors, and operational amplifier characteristics; amplification, frequency response and feedback in small signal amplifiers; applications of electronic devices and circuits. Prerequisite: ECE 305 or ECE/MME 303. 2 Lec. 1 Lab.

ECE 305 Electric Circuit Analysis II (3)
In depth study of electric circuits and networks. Includes sinusoid and complex number manipulations, AC circuit analysis, AC power analysis, poly-phase and magnetically coupled circuits, electric machines, frequency response and filters, Laplace transform, and S-domain circuit analysis. Prerequisites: ECE 205 or PHY 292/294. Concurrent course: MTH 245 or MTH 347. 2 Lec. 1 Lab.

ECE 306 Signals and Systems (3)
Introductory course covering the principles of signals and systems. The course combines lectures, Matlab simulation laboratory exercises, and design projects to expose students to the theories and concepts of both continuous-time and discrete time forms of signals and systems, as well as applications of the theories and concepts in communication systems, control systems, and signal processing. Prerequisites: ECE 205 or PHY 292/294. Concurrent courses: MTH 245 or MTH 347, ECE 305 or ECE/MME 303.

ECE 320 Professional Practice (0)
Students participating in the ECE co-op program register for this course during semesters when they are away from Oxford on work assignment.

ECE 325 Applied Electromagnetics (3)
Theories and applications of electromagnetic fields and waves; Including electrostatics, magnetostatics, Maxwell's Equations, plane wave propagation and reflection, transmission lines, and antennas. Prerequisites: MTH 245 or MTH 347 and ECE 305 or ECE/MME 303.

ECE 345 Random Signal Processing (3)
Introduces probability and statistics, including applications relevant to electrical and computer engineering. Includes extensive coverage of random variable s and introduces random processes. Prerequisites(s): MTH 249 or MTH 251, MTH 222 or MTH 231.

ECE 387 Embedded Systems Design (4)
Fundamentals of computer systems design. Interfacing and basics of embedded computers (microprocessors). Laboratory projects will require students to successfully design, implement, debug, and document computer solutions requiring a mix of hardware and software. Models and methodologies for designing systems containing hardware and software. Models and methodologies for designing systems containing both hardware and software components, or codesign, will be introduced. Substantial design projects will be required of each student. Prerequisite: ECE 287, CSE 153 or CSE 274. 3 Lec. 1 Lab.

ECE 414/514 Introduction to VLSI Design (3)
Fundamentals of modern VLSI IC design. Introduces three main aspects of CMOS IC engineering: device operation, circuit design and circuit layout, as well as three main aspects of VLSI system engineering: system-level simulation, interconnect analysis and basics of high-volume manufacturability. Provides hand-on experience with modern IC design software. Prerequisite: ECE 287 and ECE 304.

ECE 425/525 Digital Signal Processing (3)
This course investigates the relation between continuous-time and discrete-time signals and processing of discrete-time signals. Topics include sampling theory, signal representation, quantization noise, transformation and manipulation of digital signals, digital filter structure and design. Prerequisite: ECE 306. Co-requisite: ECE 345 or STA 368 or STA 301, or permission of instructor.

ECE 426/526 Biomedical Signal Analysis (3)
Physiological origin, characterization, modeling, and analysis of biomedical signals, including EEG, MEG and ECG signals. Noise and artifact reduction; nonparametric and model-based spectral estimation; joint time-frequency analysis.
Prerequisite(s): ECE 306, and either STA 301/STA 368 or ECE 345.

ECE 427/527 Radar Signal Processing (3)
Principles, theories and techniques of radar signal processing. Including: elements of radar systems; radar equation; sampling and quantization of pulse radar signals; radar waveforms; doppler processing; target detections; and concepts of synthetic aperture imaging and beamforming. Prerequisite(s): ECE 306, and either STA 301/STA 368 or ECE 345.

ECE 428/528 Real-Time Digital Signal Processing (3)
Study of real-time digital signal processing techniques. Students will learn how to design and implement real time digital signal processing algorithms with an industry-standard digital signal processing (DSP) microprocessor. Several structured laboratory exercises, such as spectrum analysis and digital filtering, followed by an extensive final project will be given. Prerequisite(s): ECE 425.

ECE 429/529 Digital Image Processing (3)
Study of digital image processing techniques, digital image fundamentals, digital image spatial filtering, digital image frequency filtering, image restoration, inverse filtering, Wiener filtering, and color image processing fundamentals.
Prerequisite(s): ECE 425.

ECE 430/530 Electromagnetics in wireless sensing and communications (3)
Introduces electromagnetic aspects of modern wireless sensing and communications. Covers fundamentals of Electromagnetic (EM) wave propagation in various media, antenna design and wireless system analysis. Hands-on experience with computational modeling and contemporary EM software is provided. Concurrent course(s): STA 368 or STA 301 or ECE 345. Prerequisite(s): ECE 325.

ECE 436 Control of Dynamic Systems (3)
An in-depth study of the theory, design, and analysis of feedback control of dynamic systems. Integrate the problem-solving techniques and concepts of electric circuits and computer-aided experimentation into the design and construction of programmable-logic based control systems and its application in modern manufacturing systems. Design methodologies applied in lab exercises and short-term design projects. Prerequisite: ECE/MME 303 or ECE 305. 2 Lec. 1 Lab. Cross-listed with MME 436.

ECE 448/449 Senior Design Project (2, 1-2) MPC
Student teams, with varied academic backgrounds, conduct major open-ended research/design projects. Elements of the design process are considered as well as real-world constraints, such as economic and societal factors, marketability, ergonomics, safety, aesthetics, and ethics. 448: feasibility studies performed; 449: implementation, testing, and production of design. Non-majors can register for 3-4 credits; (448) 2 credits, (449) 1-2 credits. Prerequisite: senior standing in student's major. Cross-listed with CSE 448/449 and MME 448/449.

ECE 453/553 Communication Systems (3)
This course introduces students to basic communication system principles and practice. Topics include modulation, demodulation and multiplexing techniques. System design and performance analysis will also be covered. Co-requisite: ECE 304. Prerequisite: ECE 306, ECE 345 or STA 301 or STA 368 or permission of the instructor.

ECE 461/561 Network Performance Analysis (3)
Modeling and performance analysis of computer and communication networks including delay and occupancy models in networks, architectures, transmission media, multiple access, switching, and protocols. Emphasis is on lower layer network performance. Prerequisites: ECE 345 or STA 368 or STA 301; or permission of instructor.

ECE 470/570 Special Topics (3)
Advanced special topics in electrical and computer engineering. Prerequisite: Permission of instructor.

ECE 491 Power Systems Engineering (3)
Study of electric power generation, utility load flow, fault analysis, system stability, surge protection, and the interconnection of the electrical grid system.
Prerequisite(s): ECE/MME 303 or ECE 305.

ECE 610 Graduate Seminars (1-3)
Weekly presentations on current research topics in multi-disciplinary areas of electrical and computer engineering, computational science and engineering, and their applications in other disciplines by graduate students, faculty, and visiting scientists and researchers. Research methods, processes, and presentation skills are emphasized. Approved for credit/no-credit grading only. May be repeated.

ENGINEERING AND APPLIED SCIENCE COURSES (EAS-Engineering and Applied Science)

EAS 101 Computing, Engineering & Society (1)
This course introduces students to the computing and engineering professions and their role in society. Students will explore the unique features of different engineering and computing disciplines as well as the disciplines' common bonds, such as problem solving, math and science, teamwork, and communication. Students will examine ethical and societal issues related to the disciplines and their impact on society and the world. In addition, the students will be engaged in an active forum for dissemination and discussion of ideas, topics, and issues related to their learning at Miami, the School, and the community.

EAS 102 Problem Solving and Design (3)
This course introduces an approach to problem solving for engineering students. The students will learn systematic approaches to problem solving. Topics covered include: problem identification, requirement analysis, research on existing and alternative solutions, and quantitative analysis of solutions, synthesis and evaluation of data, prototyping, and testing. Students will also develop their oral and written communication skills as well as team work skills.

ENGINEERING MANAGEMENT COURSES (EGM-Interdepartmental)

EGM 311 Project Management (3) MPT
Focuses on the fundamental aspects of managing complex projects, the central role of project management in organizations, the project life cycle and techniques for project planning, scheduling and controlling using situations from technical disciplines. Cross-listed with MGT 311. Prerequisite: Junior standing. STA 368, DSC 205 or equivalent.

EGM 433/533 Process Quality Analysis (3)
Study and application of statistical quality concepts with emphasis on the industrial environment. Quality philosophies and current concepts, quality management tools, control charts, acceptance sampling, and measurement. Quality planning and assurance programs. Prerequisite: STA 368, MME 231 or MGT 302, or undergraduate engineering degree, or permission of instructor.

ENGINEERING TECHNOLOGY COURSES (ENT-Engineering and Applied Science)

ENT 135 Computer-Aided Drafting (3)
Study of drafting as the graphic language of industry and application of computer-aided technology to two and three-dimensional engineering drawings. Microcomputers are used. 1 Lec. 2 Lab.

ENT 137 Introduction to Engineering Technology (1)
An introductory course for students entering Engineering Technology. This course covers broad elementary engineering concepts to include a definition of engineering technology, the distinction between the various areas of focus in engineering technology, introduction to engineering "terminology," and a survey of current issues (problems, research efforts, recent developments, etc.) in the engineering field. Prerequisite: high school algebra.

ENT 151 Engineering Materials (3)
Study of basic engineering materials; metals, plastics, ceramics, and composites. Structure, properties, and applications emphasized. Prerequisite: two years of high school algebra. 2 Lec. 1 Lab. (Mechanical technology)

ENT 152 Computer-Aided Manufacturing I (3)
Introduction to manufacturing processes and the use of the computer as a tool in those processes. Students introduced to computer numerical control programming, statistical process and control, and topics related to automated factory. Prerequisite: two years of high school algebra. Co-requisite: MTH 125. 2 Lec. 1 Lab. (Mechanical technology)

ENT 192 Circuit Analysis I (3)
Detailed study of analog a-c and d-c electric circuits and related bilateral devices. Conventional and computer simulation circuit analysis techniques are utilized. Prerequisite: MTH 102. 2 Lec. 1 Lab. (Electrical technology)

ENT 193 Circuit Analysis II (3)
Detailed study of the analysis of a-c and d-c electric networks, including resistive, reactive, and combinations thereof. Analysis techniques include conventional and computerized modeling methodology. Prerequisite: ENT 192, MTH 125. 2 Lec. 1 Lab. (Electrical technology)

ENT 196 Electronics (3)
Detailed study of analog electronic circuits and devices. Emphasis placed on operating parameters of linear (analog) circuits; techniques of circuit analysis applied as an integral part of the course. Use of computerized data analysis encouraged. Prerequisite: ENT 192. 2 Lec. 1 Lab. (Electrical technology)

ENT 202 Special Problems (.5-3)
Intensive concentration of a problem or set of problems in an approved area of study in technology to be determined in consultation with instructor. May be used as an elective for ENT associate's degree programs. Prerequisite: sophomore standing and departmental approval. Offered infrequently.

ENT 220 Professional Practice (0-2)
Students participating in the engineering technology co-op program register for this course during semesters when they are on work assignment. This enables students to remain in good standing with the University Registrar. Cross-listed with CIT and BTE 220. Prerequisite: Permission of departmental internship coordinator.

ENT 235 Computer-Aided Design (3)
Computerized graphic design study of industrial related engineering problems with emphasis on three-dimensional data base. Laboratory portion uses microcomputers. Prerequisite: ENT 135, MTH 125. 2 Lec. 1 Lab. (Mechanical Technology)

ENT 252 Computer-Aided Manufacturing II (3)
Covers topics related to the automated factory including: computer numerical control and computer-assisted part programming, distributive numerical control (DNC), computer-assisted process planning, flexible manufacturing systems, and robotics. Prerequisite: ENT 152, CSE 153, 163, or equivalent recommended. 2 Lec. 1 Lab. (Mechanical technology)

ENT 271 Mechanics I: Statics (3)
Introduction to the application of the equations of equilibrium to the solution of two- and three-dimensional problems involving rigid body structures and machines. Concept of friction and mechanical work introduced. Prerequisite: MTH 125. Co-requisite: PHY 171 or equivalent recommended. (Mechanical technology)

ENT 272 Mechanics II: Strength of Materials (3)
Elastic relationships between external forces acting on deformable bodies and resulting stresses and deformations are studied. Industrial applications of these relationships to the solution of engineering design problems are emphasized. Prerequisite: ENT 271. 2 Lec. 1 Lab. (Mechanical technology)

ENT 278 Mechanics III: Analysis of Machine Components (3)
Introduction to the use of statics and strength of materials to the analysis of individual machine components. Application of these principles to overall machine analysis presented. Prerequisite: ENT 272. 2 Lec. 1 Lab. (Mechanical technology)

ENT 291 Industrial Electronics (3)
A study of the basic components and systems used in industrial electronics including operational amplifiers, linear integrated circuits, brushless and stepper DC motors, control devices, optoelectronics, pulse modulation, sequential process control and digital logic. Prerequisite: ENT 196. 2 Lec. 1 Lab. (Electrical technology)

ENT 293 Digital Switching (3)
Principles and applications of digital systems. Emphasis placed on the study of combinational and sequential logic from a systems approach. Actual ICs are used as well as digital timing diagrams and waveforms. Co-requisite: MTH 125. 2 Lec. 1 Lab. (Electrical technology)

ENT 294 Local Area Networks (3)
This course provides an introduction to Networking fundamentals, OSI model, LAN and WAN Networking standards, TCP/IP, Routing and other protocols. The knowledge and skills obtained in this course will prepare the student for the Network + Certification Exam. (Electrical technology).

ENT 295 Microprocessor Technology I (3)
Introductory study of architecture, operation, and application of microprocessors for commercial and industrial use. Emphasis on understanding internal architecture, segmentation, arithmetic instructions, and the role I/O ports, memory, and machine language play in putting the microprocessor to work. Prerequisite: CSE 153. 2 Lec. 1 Lab. (Electrical technology)

ENT 296 Programmable Logic Controllers (3)
Study of the principles and application of Programmable Logic Controllers including ladder logic, program control, data manipulation, math instructions, sequencers, shift registers, networking, PLC-mechanism interfacing and human-machine interfacing. Prerequisite: ENT 292. 2 Lec. 1 Lab.

ENT 297 Microprocessor Technology II (3)
Advanced study of microprocessor application for commercial and industrial use. Emphasis on microcomputer architecture, interface to personal computers and peripheral devices such as printers, modems, D to A and A to D converters. Prerequisite: ENT 293, 295. 2 Lec. 1 Lab. Offered infrequently. (Electrical technology)

ENT 298 Data Communications (3)
Introduction to data communications, computer networks, and media. Includes transmission basics, digital representations, data link concepts, and other networking issues. Networking data telecommunications project assigned as a significant part of the course requirement. Prerequisite: CSE 153 or 174.

ENT 301 Dynamics (3)
The basic concepts of force, mass, and acceleration; work and energy; and impulse and momentum are introduced and applied to problems involving particles and rigid bodies. Topics include displacement, velocity, and acceleration of a particle; relations between forces acting on a particle or rigid body; and the changes in motion produced. Prerequisite: ENT 271 and MTH 151. 2 Lec. 1 Lab.

ENT 310 Fluid Mechanics (3)
The application of fluid statics and fluid dynamics to the solution of fundamental engineering fluid problems. The one dimensional energy and momentum equations are introduced and applied to the solution of fluid flow problems. Prerequisite: ENT 271 and MTH 151. 2 Lec. 1 Lab.

ENT 311 Process Control Interface Design (3)
Introduction to data acquisition and control with a graphical user interface (GUI). Topics include parallel, serial, and network access. Data transfer technology such as Object Linking and Embedding and Dynamic Data Exchange also covered. Prerequisite: CSE 153, ENT 192 or equivalent and completion of an engineering technology associate's degree or permission of instructor. 2 Lec. 1 Lab.

ENT 312 Thermodynamics and Heat Power (3)
Fundamental concepts of energy transformation and transport are introduced. The First and Second Laws of thermodynamics are applied to process and cycle analysis. Heat conduction, convection, and radiation modes are introduced and applied to simple heat balance problems. Prerequisite: PHY 172, MTH 151, and completion of an engineering technology associate's degree or permission of instructor.

ENT 314 Mechanisms for Machine Design (3)
Rigid body kinematics is applied to the analysis and design of mechanisms used in machines. The course includes motion and force transference from power source, motion characteristics of real-world machinery, and analysis and design concepts to facilitate optimization of the machine arrangement. Prerequisite: ENT 301.

ENT 316 Project Management (3)
A course for upper-level students in engineering technology. This course covers background, techniques, and case studies in project management particularly focused on engineering technology applications. The student will develop a fundamental understanding of the concepts for managing both small and large projects. Discussion, evaluation, and presentation skills will be enhanced. Some of the specific topics to be covered include: Gantt charts, PERT charts, project life-cycle, budgeting, cost analysis, break-even analysis, conflict resolution, organization tools, project planning, statistical process control, and other selected quality improvement tools. Microsoft Project® and Microsoft Excel® will be used as software tools throughout the course. Prerequisite: ECO 201 or 202 or permission of instructor. Co-requisite: STA 301, 368, or equivalent.

ENT 333 Computational Methods for Engineering Technology (4)
An in-depth study of engineering analysis techniques with emphasis on mathematical analysis of mechanical and electrical subsystems. Detailed study of a variety of situations using techniques based on state-variable analysis and state transition matrix; convolution and circuit response in the time domain; system function and response in the frequency domain; and time shift and periodic functions. Co-requisite: MTH 251. 3 Lec. 1 Lab.

ENT 355 Introduction to Finite Element Analysis (3)
An application of the basic concepts of finite element modeling and analysis to various types of engineering technology problems including structural and machine component analysis, conduction and convection heat-transfer analysis, and fluid mechanics analysis. Selected analytical aspects of finite element analysis are introduced throughout the course without becoming too theoretical. ANSYS computer software is an integral part of the course and is used within the laboratory portion. Prerequisite: ENT 333. 2 Lec. 1 Lab.

ENT 401 Computerized Instrumentation (3)
Overview of the requirements for the design of servo-mechanisms including stability, transfer functions, loop dynamics, and digital signal processing. Covers digital and analog signal conditioning, transducers, and controllers. Prerequisite: ENT 311 and MTH 151. 2 Lec. 1 Lab.

ENT 402 Industrial Automation Lab (3)
This course uses lab based experiences to investigate common electrical and mechanical instrumentation including hydraulic and pneumatic equipment, programmable logic controllers (PLC), microcontrollers, and industrial SQL databases. Pre-requisite: ENT311

ENT 404 Experimentation Techniques (3)
Coverage of experimentation techniques pertaining to mechanical engineering technology measurement methods and performance testing. Emphasis is on basic principles involved in measurement techniques. Topics range from mechanical systems to air pollution measurement techniques. Prerequisite: ENT 333. 2 Lec. 1 Lab.

ENT 407 Modern Manufacturing Systems (3)
Coverage of topics related to the manufacturing environment including metal deflection and tolerance, robotics, programmable controller applications, and manufacturing cells. Prerequisite(s): ENT 151, ENT 296 and ENT 272.

ENT 412 Industrial Applications of Neural Networks and Fuzzy Logic (3)
Covers fundamentals and industrial applications of neural networks and fuzzy logic. Emphasizes studies in process control and manufacturing systems. Prerequisite: CSE 153, STA 368, and MTH 251. 2 Lec. 1 Lab.

ENT 415 Heat Transfer with Applications (3)
Concepts of the three modes of heat transfer, conduction, convection, and radiation, discussed separately and in combination. Each mode of heat transfer is presented by relating fundamental principles and computational methods to practical, real-world thermal systems and applications. Practical application projects from such industries as aerospace, automotive, and chemical processing are assigned to reinforce these principles. Prerequisite: ENT 312.

ENT 416 Topics in Mechanical Vibrations (3)
This course provides a study of mechanical vibrations topics with emphasis on mathematical analysis methods that may be applied to the solution of industrial engineering technology problems. Computer analysis software and experimental methods are introduced within the laboratory portion of the course. Prerequisite: ENT 301, ENT 333. 2 Lec. 1 Lab.

ENT 418 Electromechanical Control Systems (3)
Covers advanced control topics including state variable models, higher order system response, transient response, and stability analysis. Prerequisite: MTH 251, ENT 301, and ENT 401.

ENT 497/498 Senior Design Project (2, 2) MPC
Student teams conduct major open-ended research and design projects. Elements of the design process including establishment of objectives, synthesis, analysis, and evaluation are integral parts. Real-world constraints such as economical and societal factors, marketability, ergonomics, safety, aesthetics, and ethics are also integral parts. 497: feasibility studies performed; 498: implementation, testing, and production of design. Includes guest

lecturers, team presentations, team building sessions, team meetings, and guided discussions relating to design. Continuous interaction with faculty and outside professionals. Prerequisite: ENT 316 and senior standing in engineering technology or permission of instructor.

ENGLISH COURSES (ENG-Arts and Science) (includes Linguistics)

ENG 104/105 Writing Studio (1, 1; maximum 2)
A laboratory that supports students in their writing across the curriculum. Small group interaction provides intensified engagement with essentials of college writing such as invention, peer response, revision, critical thinking, research, documentation, editing and delivery. Students reflect upon specific guidelines, goals, and contexts of writing assignments they encounter in courses in which they are enrolled across the curriculum.

ENG 106 Orientation to American Language and Educational Culture (3)
Prepares international students to engage fully in the Miami experience. Allows non-native English speakers to "warmup" their language skills, particularly in an academic context but also in a variety of everyday situations. Introduces foreign students to the American system of education.

ENG 108 English for International Students (5)
For students who need further work in English before enrolling in college composition. May be used as an elective, but not to meet the Miami Plan or the College of Arts and Science requirements.

NOTE: Only 10 credit hours will count toward graduation from the writing sequence: ENG 108 (5 hours), ENG 109 (4 hours) and ENG 112 (3 hours). Students will have 2 hours excluded from the total hours needed for graduation.

ENG 109 English for International Students (4) MPF
Adaptation of ENG 111 for nonnative speakers; satisfies in part the Miami Plan requirement of six hours of composition and literature. I.

ENG 111 College Composition (3) MPF
Study and practice of effective explanatory, expressive, and persuasive writing. I.

ENG 112 Composition and Literature (3) MPF
Study and practice of effective explanatory, expressive, and persuasive writing in the context of an introduction to critical study of literature. Prerequisite: ENG 111. I.

ENG 113 Advanced College Composition (3) MPF
For students who, on the basis of Advanced Placement exam or high proficiency scores, have earned three credit hours of the composition and literature requirement. It shares the basic objectives of ENG 111, 112: to improve writing skills and to enhance ability to read and understand literature. I.

ENG 119 English for International Graduate Students (3)
This course is for international graduate students at Miami University who are assigned to the course based on their TOEFL scores and the English Department placement exams. The course serves as an American academic orientation with a reading and writing focus and helps graduate students develop advanced skills in academic writing and research, with opportunities to focus on the resources and expectations of their graduate majors Assignments in research and in English grammar complement the aims of the writing assignments; all course work is intended to increase student awareness and mastery of the organizational and grammatical patterns of a successful academic writing. As much as the course is reading and writing-oriented, the course also provides students opportunities to practice their spoken and listening skills through class discussions, peer reviews, and presentations.

ENG 121 Comedy or Tragedy (3) MPF
Exploration of one of the two fundamental narrative genres, comedy or tragedy. How is it that comedy and tragedy remain the most topical and contemporary of forms, even as they continue to work with universal archetypes and situations? Surveys highlights of the western tradition of theatre, from the classical plays of Sophocles, Aristophanes, Shakespeare, Molière, Chekhov, and Shaw to films from the early 20th century and contemporary television. IIB, H. CAS-B-LIT.

ENG 122 Popular Literature (3) MPF
Exploration in detail of one genre of popular literature. Possible subjects include detective fiction, science fiction, western, and romance novel. Special attention given to why a culture invests in popular genres. IIB. CAS-B-LIT.

ENG 123 Introduction to Poetry (3) MPF
Exploration of the wide range of literature and oral performance called poetry. Study of critical terms used to discuss and write about poetic conventions, forms, and sub-genres. IIB. CAS-B-LIT.

ENG 124 Introduction to Fiction (3) MPF
Study of basic characteristics (narrative design, character, point of view, style, and tone) and essential forms (short-short story, story, novella, and novel) of the genre of literary fiction. IIB. CAS-B-LIT.

ENG 125 Introduction to Drama (3) MPF
Critical analysis of dramatic literature from the ancient Greeks to modern performance art, using dramatic structure and theory to read play texts as productions of their cultural contexts. IIB, H. CAS-B-LIT.

ENG 131/132/133 Life and Thought in English Literature (3, 3, 3) (131) MPF
Selected major texts and issues in English literature and culture from the beginning to 1660, including The Civil War and Paradise Lost, with attention to historical context reflected in religious, philosophical, political, and social perspectives and issues such as gender, class, ethnicity, and canon formation; (MPT 132) British literature from 1660 to 1901, with attention to issues of class, race, and gender in the context of accelerating economic, social, environmental, political, and religious change; to developments in education, psychology, philosophy, science, and technology; and to relations with other literatures and arts; (MPT 133) selected British fiction, nonfiction, poetry, and drama from 1901 to present with special attention to the impact on literary imagination of two global conflicts and loss of Empire. IIB, H. CAS-B-LIT.

ENG 134 Introduction to Shakespeare (3) MPF
Introduction to Shakespeare's works. Gives students who are new to collegiate-level literary studies an overview of the range of Shakespeare's works and the variety of approaches to those works. Prerequisite or Co-requisite: college composition. IIB. CAS-B-LIT.

ENG 141/142/143 Life and Thought in American Literature (3, 3, 3) (142, 143 are MPT) MPF
Introduction to multiplicity of voices in American culture as expressed in literary texts written in and about America: (141) from colonial period through 1865; (MPT 142) 1865 - 1945 (MPT 143) 1945 to present. IIB, H. CAS-B-LIT.

ENG 144 Major American Authors (3) MPF
Introduction to American literature and culture through the study of a small group of important writers. Selected authors represent a range of traditions and may include writers as diverse as Bradstreet, Franklin, Dickinson, Douglass, Whitman, Melville, Wharton, Twain, Cather, Baldwin, Faulkner, and Morrison. IIB. CAS-B-LIT.

ENG 161 Literature and Politics (3) MPF
Study of literary representations of political events, examining both how literary works dramatize social and political concerns and how literature shapes political perceptions. IIB. CAS-B-LIT.

ENG 162 Literature and Identity (3) MPF
Study of literary constructions of individual and collective identity. Focuses on depictions of racial and ethnic types, gender, sexuality, social class, and regional or geographical differences. IIB, Cul. CAS-B-LIT.

ENG 163 Literature and Travel (3) MPF
Study of travel literature from a range of periods and genres. Includes the relation of individual and national identity, imperialism and cultural relativity, the invention of geography, and the politics of tourism. IIB, H. CAS-B-LIT.

ENG 165 Literature and Sexuality (3) MPF
Study of literary representations of sexuality with a focus on the impact of gender and sexuality on the development of identity. IIB, H. CAS-B-LIT.

ENG 169 Disability Identity (3) MPF
Study of the construction of disability identity through literature, memoir, and popular culture. Cross-listed with DST 169. IIB, Cul.

ENG 171 Humanities and Technology (3) MPF, MPT
Introduction to methods of thinking used in humanities disciplines (literature, history, philosophy, classics, etc.), computer technologies, and their relationship. Practical skills (web page making; research on the Internet) and analytical skills (how to tell good information from bad) combined with theories about the Information Society. IIB, CAS-B. Cross-listed with IMS 171.

ENG 179 Introduction to Jewish Studies (1)
Introduction to Jewish studies as a subject of academic study, basic concepts in Jewish studies and multidisciplinary approaches to Jewish studies. Cross-listed with ART, GEO, GER, HBW, HST, POL, PSY, REL.

Advanced English Courses

Note: ENG 111, 112 or 113 is the general prerequisite for all advanced courses. ENG 298 is the prerequisite for literature majors for all 300- and 400- level courses. All 300-level courses are open to sophomores as well as juniors and seniors. All 400-level courses in literature, except 480, are open to juniors as well as seniors. 500- and 600-level courses are open to qualified seniors with departmental permission. 700-level courses are open only to graduate students.

ENG 201 Language Awareness (3) MPF
Introduces various ways of looking at language: sociological, psychological, and formal. Students study how language plays a role in every human activity, from gender and racial stereotyping to the development of automata. May be taken three times, with different topics. Cross-listed with COM 201. IIC.

ENG 202 Varieties of English: Dialect Diversity and Language Change (3) MPF
This interactive course focuses on varieties of English within the context of diverse cultures in the United States. Primary topics include: linguistic diversity, language change, gender differences in language use, language (use) and social class, attitudes toward language as well as examination of specific varieties of English such as African American English, Appalachian English, Native American English, Vietnamese American English, English spoken by persons of Latin American descent, Hawaiian Pidgin English, Gullah, Louisiana Creole, and others. IIB, Cul.

ENG 214 Russian Reception of Classical Culture (3)
Introduces students to the study of the modern reception of antiquity, focusing mainly on the way Russian literature received, responded to, and resisted the Greco-Roman legacy. Emphasis on classical myths and literary figures of antiquity that were the most influential for the Russian poetic imagination. Readings include Lomonosov, Pushkin, Boris Pasternak, Tsvetaeva and Brodsky. All readings in English. Cross-listed with CLS/RUS214.

ENG 215 Technical Writing (3)
For associate's degree students in technical, applied science, and pre-engineering courses. Practice in varieties of technical correspondence and communication with emphasis on writing clear, concise, and accurate informal and formal reports. Offered only on Hamilton and Middletown campuses.

ENG 220 Literature and Film (3; maximum 6) MPT
Study of the relationship between film and genres of literature, focusing on a comparison of techniques of rhetoric, fiction, and drama and those of film. Primary consideration given to film adaptations of works of fiction and drama. Extensive screenings of films. May be repeated once when topic changes. Cross-listed with FST 220. CAS-B-LIT.

ENG 221 Shakespeare and Film (3) MPT
Study of selected plays of Shakespeare that have been filmed. Students read plays and view one or more versions of each play. Cross-listed with FST 221. CAS-B- LIT.

ENG 223 Ancient and Modern Rhetorical Strategies for Writers (3)
Principles and practices of classical, modern, and visual rhetorics. Designed for students who want more intensive practice in developing arguments in academic, public, and professional contexts. Prerequisite(s): ENG 111, 112 or 113 or permission of instructor.

ENG 224 Digital Writing and Rhetoric: Composing Words, Images and Sounds (3) MPT
Students will analyze and produce digital multimodal compositions that integrate words, images, and sounds. No prior web or digital writing experience required. Cross-listed IMS 224.Students will analyze and produce digital multimodal compositions that integrate words, images, and sounds. No prior web or digital writing experience required. Cross-listed IMS 224.

ENG 225 Advanced Composition (3)
Practice in various types of expository and narrative writing.

ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)
Techniques and principles of creative writing with special application to the short story and to poetry.

ENG 230 Studies in Themes and Genres (3; maximum 6)
Study of traditional literature, mainly English and American, organized according to themes and genres rather than by chronology. May be repeated once when topic changes. Does not count toward the English major. CAS-B-LIT. Offered infrequently.

ENG 231 The Short Story (3)
Study of the short story as a literary genre with its own unique conventions. Examples from both early and present-day masters. CAS-B-LIT.

ENG 232 American Women Writers (3) MPT
Survey of American Women's writing from Anne Bradstreet to the present. Cross-listed with WMS 232. CAS-B-LIT.

ENG 233 British Women Writers (3) MPT
Works by British women, from the 19th century to the present. Cross-listed with WMS 233. CAS-B-LIT.

ENG 235 Classics of Film (3)
Study of film classics from the silent era to the present. Particular attention is given to the evolution of narrative conventions in films such as Birth of a Nation, Potemkin, The Last Laugh, M, Citizen Kane, Rome: Open City, Rules of the Game, Hiroshima Mon Amour, and others. Weekly screenings. Does not count toward the English major. Cross-listed with FST 235. Offered infrequently.

ENG 236 Alternative Traditions in Film (3) MPT
Study of major films and cinematic trends in world cinema. Emphasis on film in which the classical conventions of narrative are questioned or disrupted. Study motives and methods of film makers whose concern is not primarily the telling of a story, or for whom the conventional entertainment narrative is an object of radical investigation. Cross-listed with FST 236.

ENG 237 Gay and Lesbian Literature (3)
Introduction to gay and lesbian literature of the late 19th and 20th centuries. Introduction to Queer Theory. Attention to historical context in political, philosophical, social, and religious perspectives, as well as issues regarding identity, orientation, gender, race, and class. CAS-B-LIT.

ENG 238 Narrative and Digital Technology (3)
Applies to digital games those notions about narrative structure and character development that have evolved in literature. Students will explore digital art as literary critics, asking whether games are "art" and analyzing how post-modern literary/digital art participates in globalization. Students compose narratives in writing as well as 3-D graphics. Cross-listed with IMS 238.

ENG 246 Native American Literature (3) MPF
Survey of published Native American fiction, poetry, memoir, drama, and non-fiction from the mid-19th century to the present. Explores cultural contexts and emphasizes an interdisciplinary approach that includes historical, sociological, and anthropological as well as literary perspectives. Cross-listed with AMS 246. IIB, Cul. CAS-B-LIT.

ENG 247 Appalachian Literature (3) MPF
Survey of published Appalachian fiction, poetry, drama, and non-fiction from the mid-nineteenth century to the present. Addresses migration experiences, identity, landscape, and regionalism. Emphasizes an interdisciplinary approach to the study of literature, drawing on history, sociology, ecology, and current trends in American literary studies. Cross-listed with AMS. IIB, Cul. CAS-B-LIT.

ENG 248 Asian American Literature (3) MPF
Survey of Asian American writing (including the novel, poetry, drama, nonfiction, etc.) from the early 20th century to the present. Addresses immigration experiences, growing up in America, and writing as cultural expression. Course uses an interdisciplinary approach to the study of literature, drawing on history, sociology, ethnic studies, and current trends in American literary studies. Cross-listed with AMS 248. IIB, Cul. CAS-B-LIT.

ENG 251/252 Life and Thought in European Literature (3, 3) MPF
Selected masterpieces of European literature: (251) from the beginning to 1800; (252) from 1800 to the present. IIB, H. CAS-B-LIT.

ENG 251L/252L European Literature (4, 4)
(251: 18th century; 252: 19th century and after). Introduction to critical and cultural study of Europe as presented in literary texts. Texts will be used as springboards to an understanding of the sweeping social changes of the periods and the ensuing responses. The course will examine textual presentation of the art, history, and philosophy of the period, as well as of the concurrent evolution of society. Offered at the European Center only. **Note:** Credit for

graduation will not be given for more than one of ENG 251 and 251L, nor more than one of ENG 252 and 252L. IIB, H. CAS-B-LIT.

ENG 253 Jewish Identity and Russian Literature (3)
This course examines how images of Jews in mainstream literature helped form conceptions (and misconceptions) of Jewish identity in modern Russian culture. Taught in English. Cross-listed with RUS 253. CAS-B-LIT.

ENG 254 Latino/a Literature and the Americas (3) MPF
Study of fiction, poetry, and non-fiction by Chicano/a, Cuban-American, Puerto Rican, and Central American writers, with an emphasis on the various cultural and historical contexts that influence and are represented in the writings. Specific study of writing in transnational communities situated in more than one part of the Americas. Cross-listed with LAS 254. IIB, Cul. CAS-B-LIT.

ENG 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3) MPF, MPT
Examines works by Pushkin, Lermontov, Gogol, Turgenev, and Dostoevsky and a number of critical essays representative of a variety of viewpoints. Uses an interdisciplinary approach that takes into account social, historical, political, religious, as well as literary factors. Cross-listed with RUS 255. IIB. CAS-B-LIT.

ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) MPT
Treatment of selected works of Russian literature (realism, modernism, post-modernism) with attention to Tolstoy, Chekhov, Bunin, Sologub Bulgakov, Babel, Solzhenitsyn, and Nabokov. Cross-listed with RUS 256. CAS-B-LIT.

ENG 257 Scriptwriting: Electronic Media (3)
Writing for radio, television, and new media, with emphasis on scriptwriting for feature film and narrative for television; treatment of documentary subjects; introduction to native form in new media. Cross-listed with COM 257.

ENG 258 Copywriting: Electronic Media (3)
Writing for radio, television, and new media with emphasis on commercial, non-commercial and promotional copywriting, announcements. Cross-listed with COM 258.

ENG 259 The Modern World Novel (3)
Intensive study of selected 'world novelists' of the 20th century from Joyce through the present. CAS-B-LIT.

ENG 261 Modern Drama (3)
Introduction to major dramatists of the modern era, from birth of modernism to performance art. Exploration of plays as written texts and performances. CAS-B-LIT.

ENG 262 Children's Literature (3)
Broad study of children's books, with emphasis on acquiring skill to evaluate children's literature. Practice in the literary analysis of prose and poetry with emphasis on the impact of good literature for children. CAS-B-LIT.

ENG 262M Children's Literature for Middle Childhood (3)
Study of literature for grades 4-9 with emphasis on literary analysis and interpretation. Literary themes and social issues pertinent to this age group will be considered, as will the selection and evaluation of literature for upper- elementary and middle school grades. **Notes:** open only to Middle Childhood Language Arts majors who have completed the college composition requirement. Credit for graduation will not be given for more than one of ENG 262 and 262M. CAS-B-LIT.

ENG 265 European Jewish Cinema (3)
Survey of European films by Jewish filmmakers, or films dealing with Jewish themes, from 1920s to the present. Films with English subtitles. Readings and discussions in English.

ENG 267 Russian Literature in English Translation: From Pasternak to the Present (3) MPT
Treatment of major trends in the development of Russian literature since 1953. Examines works by Pasternak, Solzhenitsyn, Rasputin, Trifonov, and others. Cross-listed with RUS 257. CAS-B-LIT. Offered infrequently.

ENG 271 Cultures and Literature of the American South (3) MPF
Focuses on the culture and literature of the South as a region unique within the United States. Studies the complex ways Southern authors present their world views through fiction - and the ways political passions are manifested in a tumultuous society such as the American South in the era prior to, during, and after the Civil Rights Movement. Musical forms of expression such as the blues will also be studied. Cross-listed with AMS 271. IIB, Cul, H. CAS-B-LIT.

ENG 281 The English Novel (3)
Canonical British fiction from the 18th century through the present. CAS-B-LIT.

ENG 282 American Fiction (3)
Introduction to the variety and key elements of American fiction from the late 18th century to the present. CAS-B-LIT.

ENG 283 Modern Poetry (3) MPT
Major modern poetry in English, from the late 19th century to the present. CAS-B-LIT.

ENG 284 English Drama, 1660-1800 (3)
Development of various types of dramas and theater history of the long 18th century, from the reopening of theaters in 1660 to the flourishing of Romanticism about 1800. CAS-B-LIT. Offered infrequently.

ENG 293 Contemporary American Fiction (3) MPT
Study of new trends and movements in American fiction of the last 10 to 15 years, focusing upon such issues as vision of society, experiments in narrative form and content, mode of humor, treatment of reality, and changing images of the self. CAS-B-LIT.

ENG 298 Introduction to Literary and Cultural Studies (3)
Introductory skill-based course to be taken within one semester after declaring literature major. Covers critical and interpretive terms and basic concepts of literary genre; develops skills of close reading, interpretation, and critical analysis; provides instructions in techniques of research and citation; and introduces various critical methods and approaches. CAS-B-LIT.

ENG 301 History of the English Language (4) MPT
Linguistic and cultural history of British and American English, and other varieties of English around the world.

ENG 302 Structure of Modern English (4) MPT
Linguistic structure of American English with specific reference to application in teaching.

ENG 303 Introduction to Linguistics (4) MPF
Scope of linguistics: fundamental concepts and methods of linguistic science in its descriptive and historical aspects. Cross-listed with ATH and GER 309, SPN 303. V. CAS-E.

ENG 304 Backgrounds to Composition Theory and Research (3) MPT
Theoretical foundation of composition theory and research, emphasizing structure of writing, composing process, contemporary rhetoric, and linguistic based theories of composition.

ENG 311 Contemporary Fiction (3)
In-depth study of contemporary fiction for creative writing majors. Works studied come from both the United States and abroad, with emphasis on works published within the last 25 years, usually within the last decade.

ENG 312 Contemporary Poetry (3)
In-depth study of contemporary poetry, written both in the United States and other countries, with emphasis on works published during the last 25 years, usually within the past decade.

ENG 313 Introduction to Technical Writing (3) MPT
Introduction to the principles of technical writing. Attention to defining purpose, analyzing audience, developing document structure, creating visual design, drafting and revising communications. Practice in varieties of technical communication.

ENG 314 Playwriting (4)
See entry under Department of Theatre.

ENG 315 Business Writing (3)
Study of writing techniques used in business environments and practice in applying them.

ENG 320 Intermediate Creative Writing: Fiction (3; maximum 6)
Techniques and principles of narrative writing with special application to the short story. May be taken twice, but not with same instructor. Prerequisite: ENG 226.

ENG 321 The Literary Marketplace (3)
Provides creative writing students with an introduction to the literary marketplace. Designed for students interested in careers as editors or reviewers, or for anyone interested in how books are produced, marketed, reviewed, and remaindered.

ENG 323 Creative Non-Fiction (3)
Intermediate workshop in creative non-fiction. Reading and analysis of published creative non-fiction books and essays, as well as critiquing and class discussion of student writing in this genre.

ENG 327 Medieval Literature (3) MPT
Study of English literature from Beowulf to the poetry of Dunbar, especially in translation. CAS-B-LIT.

ENG 328 The Renaissance: Nondramatic Literature of the 16th Century (3)
British 16th century non-dramatic literature: More, Spenser, Sidney, Shakespeare, and others. CAS-B-LIT.

ENG 329 Disability Poetics and Narrative Theory (3)
Studies in poetic and narrative theory emerging from literature about disability, with readings from ancient Greece to Shakespeare and contemporary literature. Cross-listed with DST.

ENG 330 Intermediate Creative Writing: Poetry (3; maximum 6)
Intermediate course in theory and practice of poetry writing with seminar study of relevant contemporary materials and criticism of student work in class and conference. Assigned exercises in techniques and forms. An average of 10 to 15 poems due each semester. May be taken twice, but not with same instructor. Prerequisite: ENG 226.

ENG 331 17th-Century Poetry and Prose (3)
British prose and poetry of the earlier 17th century. CAS-B-LIT.

ENG 334 English Literature of the Restoration (1660-1714) (3)
British prose and poetry of the later 17th and early 18th centuries, 1660-1714. CAS-B-LIT.

ENG 335 English Literature of the 18th Century (3)
British prose and poetry of the 18th century. CAS-B-LIT.

ENG 336 African American Writing, 1746-1877 (3) MPT
Survey of the beginnings of African American literature to the end of Reconstruction. Among the various writers discussed are Phillis Wheatley, Frederick Douglas, Frances E.W. Harper, William Wells Brown, Linda Brent, and Harriet Wilson. Particular attention is given to the origins of poetry, fiction, slave narratives, and drama as well as to the relative importance of speeches, political tracts, newspaper writing, and folk forms of literature. Cross-listed with BWS 336. CAS-B-LIT. Offered infrequently.

ENG 337 African American Writing, 1878-1945 (3) MPT
Survey of African American writing from after the Reconstruction era to World War II, with special attention to the emergence and history of the New Negro Renaissance. Among the writers studied are Paul Laurence Dunbar, Charles W. Chesnutt, W.E.B. DuBois, Langston Hughes, Zora Neale Hurston, Sterling A. Brown, Alain Locke, Margaret Walker, and Richard Wright. Cross-listed with BWS 337. CAS-B-LIT.

ENG 338 African American Writing, 1946-Present (3) MPT
Survey of African American writing since World War II, with special attention to literary and cultural contributions of such writers as James Baldwin, Ralph Ellison, Gwendolyn Brooks, Amiri Baraka, Paule Marshall, Toni Morrison, and Alice Walker. Cross-listed with BWS 338. CAS-B-LIT.

ENG 339 Writers of the Early Romantic Period (3) MPT
British literature during the time of the American and French Revolutions and the Napoleonic Wars. CAS-B-LIT.

ENG 342 Writers of the Later Romantic Period (3) MPT
British literature from the Regency to the accession of Queen Victoria. CAS-B-LIT.

ENG 343 English Literature of the Early Victorian Period, 1830-1860 (3) MPT
British prose and poetry from 1830 to 1860. CAS-B-LIT.

ENG 344 English Literature of the Later Victorian Period, 1860-1901 (3) MPT
English prose and poetry of the later Victorian period, from 1860 to Victoria's death in 1901. CAS-B-LIT.

ENG 345 British Modernism, 1890-1945 (3) MPT
Study of British culture and literature at the end of the Empire; readings include Joseph Conrad, James Joyce, Virginia Woolf, and their contemporaries. CAS-B-LIT.

ENG 347 Postwar/Postcolonial British Literature, 1945-Present (3)
Study of British culture and literature in the years when the United Kingdom was relinquishing its colonial possessions and relocating itself in changed global politics; readings by such writers as Julian Barnes, Samuel Beckett, Graham Greene, Jean Rhys, Fay Weldon, and their contemporaries. CAS-B-LIT.

ENG 348 Ethnic American Literatures (3)
Intensive introduction to theories of race, ethnicity, and identity through the study of American literature by ethnic minorities. Cross-listed with AMS 348. CAS-B-LIT.

ENG 349 Colonial and Early National American Literature (3)
Intensive study of issues animating American culture from the period of discovery to the early 19th century, as articulated in selected texts from a variety of literary forms. CAS-B-LIT.

ENG 350 Topics in Film (3)
In-depth and concentrated studies in film. Focuses on specific topics in film such as national film traditions (American, Japanese, French, etc.), genres (science fiction, western, detective, etc.), and themes (film and society, women in film, political conspiracy, etc.). May be repeated once when topic changes. Cross-listed with FST 350 and WMS 350.

ENG 352 American Literature, 1810-1865 (3)
Intensive study of issues animating American culture between 1810 and the end of the Civil War, as articulated in selected texts from a variety of literary forms. CAS-B-LIT.

ENG 353 American Literature, 1865-1914 (3)
Intensive study of issues animating American culture from the Civil War to World War I, as articulated in selected texts from a variety of literary forms. CAS-B-LIT.

ENG 354 American Literature, 1914-1945 (3) MPT
Intensive study of issues animating American culture between 1914 and 1945, as articulated in selected texts from a variety of literary forms and traditions. CAS-B-LIT.

ENG 355 American Literature, 1945-Present (3) MPT
Intensive study of issues animating American culture from 1945 to the present as articulated in selected texts from a variety of literary forms and traditions. CAS-B-LIT.

ENG 356 Contemporary Jewish Fiction in Europe (3)
Fiction and autobiography from the 1970s to the present by Jewish authors of diverse European backgrounds. Emphasis on national identity and changing relationships to the Holocaust. Readings and discussions in English. Cross-listed with FRE/GER 356.

ENG 360 Interdisciplinary Special Topics (1-4; maximum 8)
Study of a selected topic examined from the perspective of two or more disciplines. Does not count toward the English major. CAS-B-LIT.

ENG 364 From Marco Polo to Machiavelli (3) MPT
Examination of Classical and Asian influences in Italian culture from the Middle Ages through the Renaissance. Works of Marco Polo, Dante, Petrarca, Boccaccio, the Italian Humanists, and Renaissance artists and writers, such Leonardo da Vinci, Michelangelo, Ariosto, Castiglione, and Machiavelli, including women poets, such as Vittoria Colonna, Gaspara Stampa, and Veronica Franco, are read and discussed against the historical background of Mediterranean trade and culture from the 13th through the 16th century, when the Italian peninsula was a crossroads between Europe, Africa, and Asia. Taught in English. Cross-listed with ITL 364. Offered every two years. CAS-B-LIT.

ENG 368 Feminist Literary Theory and Practice (3) MPT
Introduction to feminist literary theory; deals with how feminism has shaped reading and interpretive practices, and develops some practical strategies for literary study. Cross-listed with WMS 368. CAS-B-LIT.

ENG 369 Colonial & Postcolonial Literature (3)
Intensive introduction to theories of colonial and postcolonial identity through the study of South Asian Literature and Culture from India, Pakistan, and Sri Lanka. Readings include R. K. Narayan, Salman Rushdie, Shyam Selvadurai, Sara Suleri, Anita Desai, Arundhati Roy and their contemporaries. Cross-listed with AAA 369. CAS-B-LIT.

ENG 370 Introduction to Literary and Cultural Theory (3; maximum 6)
Surveys significant movements in recent critical theory, such as formalism, structuralism and poststructuralism, psychoanalysis, Marxism and historicism, feminism, race and ethnic studies, gay and lesbian studies, and cultural studies. Attention also given to applying particular methods to one or to several literary texts. May be repeated once for credit when content changes. CAS-B-LIT.

ENG 372/373 Shakespeare's Principal Plays (3, 3)
(372) Critical study of plays from the early period; (373) critical study of plays from the late period. CAS-B-LIT.

ENG 381 African Lusophone Literature (3)
A focus on questions of gender, race, class and stereotypes in the African Lusophone countries. Taught in English. Prerequisite: Any literature course. Cross-listed with POR/BWS/FST.

ENG 383 By or About (Afro-) Brazilian Women (3)
Addresses questions about gender, race, class and stereotype of women's bodies in 20th-century Brazil. Cross-listed with BWS/POR/WMS 383.

ENG 390 Studies in American Regionalism (3; maximum 6) MPT
Literature of the West: imaginative treatments of the American frontier and the post frontier West, Cooper to the present; major Southern American writers from Byrd to the present. Cross-listed with AMS 390. CAS-B-LIT. Offered infrequently.

ENG 401 Dante's Divine Comedy (3) MPT
Intensive examination of Dante's major work, The Divine Comedy, read in a bilingual edition. Lectures and discussion in English. No prerequisites. Offered every two years. Cross-listed with ITL 401. CAS-B-LIT.

ENG 405/505 Advanced Linguistics (3) MPC
Advanced study of contemporary linguistic theories on syntax, semantics, and/or phonology. Though largely situated within a generative-transformational framework it also explores other contemporary approaches to linguistic theories, especially as a context for the development of generative-transformational theory. Students learn how to discern patterns within language data, to form hypotheses about the underlying structures of language, and to choose from among competing hypotheses. Prerequisite: ENG 303 or equivalent. Offered alternate years.

ENG 406 Discourse Analysis: Speech Acts in Context (3) MPC
Students work on projects to discover how linguists observe, collect, and analyze language data. Students learn to apply linguistics methodologies to problems about how language shapes our perceptions, how language mediates between people and institutions, or how to develop formal systems that enable computers to parse human sentences. Projects often touch upon concerns of other disciplines. Offered alternate years.

ENG 411/511 Visual Rhetoric for Technical and Scientific Communicators (3)
Provides an introduction to the theory and techniques of visual rhetoric used by technical and scientific communicators. Covers elements of layout, design, and typography, giving students practice with short and longer print texts and non-print media. Prerequisite: ENG 215 or 313 and junior standing.

ENG 412/512 Editing for Technical and Scientific Communicators (3)
Examines principles and practices of editors of technical and scientific publications. Preparing communications for publication emphasized. Students edit their own and other students' work, and that of outside clients. Prerequisite: ENG 215 or 313.

ENG 413/513 Writing Reports and Proposals (3)
Intensive study of the principles and processes involved with preparing technical and scientific reports and proposals. Prerequisite: ENG 215 or 313 and junior standing.

ENG 414/514 Designing and Testing User Documents for Technical and Scientific Communicators (3)
Advanced study of theories and practices involved with the production of user documents in both print and other media. Prerequisite: ENG 215 or 313.

ENG 415 Practicum in Technical and Scientific Communication (3) MPC
Practicum in project management specifically designed to provide professional writing majors with practical experience related to technical or scientific communication practices. This final course for the undergraduate major in technical and scientific communication is designed to teach communicator/client relationships, problem-solving skills and professionalism in conduct and product. Students are expected, with close supervision and feedback, to take a significant amount of responsibility for planning and designing their senior projects. Prerequisite: senior standing and ENG 215, 313, 411/511, 412/512, 413/513, and 414/514 or permission of BATSC Executive Committee.

ENG 420 Advanced Creative Writing: Fiction Workshop (3; maximum 6)
Study and practice in various forms of creative and imaginative writing with emphasis upon the problems and the craft of fiction. Analysis of examples from contemporary literature accompanies class criticism and discussion. Prerequisite: ENG 320 and permission of instructor.

ENG 422 Creative Writing: Screenwriting (3)
Advanced workshop in feature film screenwriting. Analysis of examples of contemporary screenplays, with emphasis on the craft of writing screenplays. Class discussion and sharing of student-written screenplays. Cross-listed with COM 421.

ENG 430/530 Advanced Creative Writing: Poetry Workshop (430: 3, maximum 6; 530: 3, maximum 9)
Practice in writing poetry with emphasis on development of style. Advanced course in the theory and practice of poetry writing with seminar study of relevant contemporary materials and criticism of student work in class and conference. Prerequisite: ENG 330 and permission of instructor.

ENG 435/535 Queer Theory (3)
Analysis of how gender and sexuality have informed our understandings of cultural texts and contexts. Emphasizes how discourses of gender and sexuality function within a variety of historical, cultural, and/or aesthetic traditions. Cross-listed with WMS 435/535.

ENG 437 Black Feminist Theory (3)
Examines critical and theoretical issues in black feminism from slavery to the present. One of the central goals of the course is to interrogate race, gender, class, and sexuality in the context of black women's thoughts and experiences. The class will read, discuss and analyze a wide variety of texts including critical essays, films, selected fiction, print and visual media. Cross-listed with BWS/WMS.

ENG 440 Major English and American Writers (3; maximum 6) MPT
Intensive study of individual major writers in the British and American literary traditions. May be repeated once for credit when content changes. CAS-B-LIT.

ENG 450 Studies in Genre (3; maximum 6)
Focused study of issues related to one or more literary genres. Consult the English department course supplement for additional information. May be repeated once for credit when content changes. CAS-B-LIT.

ENG 460/560 Issues in Creative Writing (3) MPC
Integrates reading and writing of poetry and fiction at the highest levels. The issue or problem organizing the course is applicable to both fiction writers and poets; readings in both poetry and fiction illustrate, problematize and/or offer solutions to the issue under discussion. Students read and think as writers and respond to the issue or problem in both an analytic and creative manner. Specific requirements vary according to instructor and topic. Prerequisite: ENG 226 and at least two of the required upper-level writing courses; four of the five literature courses; one of the other two theory and practice courses; at least one foreign language or literature in translation course; senior standing.

ENG 468 Gender and Genre (3) MPT
Includes a variety of areas within the disciplines of English and American literary and linguistic studies. Subject material varies with instructor's area of expertise, but focus is on the relation between gender and genre in the reading and/or writing process. Cross-listed with WMS 468. Offered infrequently.

ENG 470 Studies in Literary Theory (3; maximum 6)
Intensive examination of one or more schools, methods, or significant writers of literary and cultural theory, such as structuralism, poststructuralism, Marxism, and feminism. May be repeated once for credit when content changes. CAS-B-LIT.

ENG 410A Black Feminist Theory (3)
Examines black feminist theory from a variety of perspectives. Samples diversity of texts by theorists in the U.S. and the African Diaspora. Readings include both well known and lesser known thinkers/scholars as well as classic texts and newly published works. Cross-listed with WMS and BWS 410A.

ENG 480 English Honors (3)
Students interested in earning honors in English must confer with associate chair.

ENG 481/581 Writing Center Consulting (3)
In this intensive course, students study existing scholarship on the theories and practices of writing center work as well as practice various approaches to one-on-one and small-group consultations for multiple and diverse student writers. Prerequisite: permission of instructor.

ENG 490 Special Topics in Literary Study (3; maximum 6)
Intensive study of some aspect of contemporary literary study, including such topics as American regional writing, literature of war, or writing by women of color. May be repeated once for credit when content changes. CAS-B LIT.

ENG 491/591 Art & Craft of Poetry: An Intensive Workshop (1)
One-week intensive workshop in the art and craft of poetry taught by a distinguished visiting poet open to members of the graduate program in creative writing as well as select undergraduates who have received permission from the director of creative writing.

ENG 492/592 Art & Craft of Fiction: An Intensive Workshop (1)
One-week intensive workshop in the art and craft of fiction taught by a distinguished visiting writer open to members of the graduate program in creative writing as well as selected undergraduates who have received permission from the director of creative writing.

ENG 494 Disability in Global and Local Contexts (3) MPC
Examines contemporary disability issues and policies and the lived experiences of persons with disabilities in international and local contexts, with emphasis on understanding disability within particular communities-both locally and in other countries-and on learning multiple research methods. Cross-listed with DST/SPE/COM/SOC and EDP 489. Prerequisite(s): Permission of instructor.

ENG 495 Capstone in Literature (3) MPC
Intensive study, including reading and independent research. Specific course requirements vary according to instructor and topic, but all Capstones include extensive reading, writing, and discussion. Students read and think as informed readers and respond to issues or problems in an analytic and creative manner. Capstones in literature are selected annually from proposals submitted by faculty. Prerequisite: Senior standing.

ENG 496 English Studies: Reflections on Literature & Language (3) MPC
The central goal of the course is to help pre-service teachers begin to construct, understand, and reflect upon the definitions, images, and lived realities of English teachers.

ENG 600 Special Topics in Literature (2-4; maximum 4)
Study of individual works and types of literature which fall outside traditional areas of study.

ENG 601 Introduction to Language and Linguistics (2-4)
Basic concepts of language and its use from both historical and contemporary perspectives, with special attention to occasions of use.

ENG 602 Introduction to Rhetoric (2)
Principles of expository and persuasive prose.

ENG 603 Literary Theories and Their Histories (4)
Study of the fundamental perspectives in literary criticism and their application to literary texts.

ENG 605 Issues in the Profession (2)
Colloquium designed to introduce beginning graduate students to the academic profession, and especially to contemporary debates about the status and variety of literary history. Prerequisite: admission to the graduate program.

ENG 606 Teaching of College Composition Practicum I (2)
Weekly guidance in the teaching of English 111, College Composition, for first-time instructors. Topics include developing writing and group activities, facilitating class discussion of reading, holding effective student-teacher conferences, writing syllabi, and benefitting from observation of one's teaching.

ENG 607 Teaching of College Composition Practicum II (2)
Weekly guidance in the teaching of English 112, Composition and Literature, for first-time instructors. Topics include developing writing and group activities, facilitating class discussion of reading, holding effective student-teacher conferences, writing syllabi, and benefitting from observation of one's teaching.

ENG 610 Topics in Literary and Cultural Studies (4; maximum 8)
Examination of aesthetic, historical, theoretical issues in literary/cultural studies. Detailed description of topics available from the Director of Graduate Studies.

ENG 612 Old English (4)
Introduction to the language, literature and culture of Anglo-Saxon England (roughly 500-1100 AD), with an emphasis on developing a reading knowledge of Old English. Includes study of Old English grammar and vocabulary, translation practice, and reading of riddling and elegiac poems from the Exeter Book and selections from Beowulf.

ENG 614 Medieval English Literature (4)
Literary and linguistic study of Middle English prose and poetry.

ENG 617 Chaucer, The Major Poems (4)
Intensive study of The Canterbury Tales and Troilus and Criseyde with emphasis on recent major critical studies, intellectual milieu, contemporaneous aesthetic, principal sources, and modern critical approaches.

ENG 620 Studies in Renaissance Literature (4; maximum 12 toward any degree)
Intensive study of selected Renaissance writers such as More, Sidney, Spenser, Marlowe, Jonson, Webster, Bacon, Donne, Milton, and Shakespeare; or of a particular theme such as the courtesy tradition; or of a poetic type such as the Renaissance sonnet or the Renaissance pastoral.

ENG 630 Studies in the Restoration and the 18th Century, 1660-1789 (4; maximum 12 toward any degree)
Intensive study of selected authors such as Dryden, Pope, Swift, Johnson, Fielding, Goldsmith, and Sheridan, or of a literary group, genre, or style.

ENG 640 Studies in 19th-Century English Literature (4; maximum 12 toward any degree)
Intensive study of selected 19th century authors such as Wordsworth, Coleridge, Byron, Keats, Thackeray, Dickens, George Eliot, Conrad, Arnold, Browning, and Tennyson, or of a literary group, a genre, or theme.

ENG 650 Graduate Fiction Workshop (4; maximum 16)
Study and practice in writing fiction, with attention to subtle aspects of character development, structure, story, point of view, figuration, tone, style, etc. Emphasis on group critiquing student work and on revising manuscripts, with the goal of producing a portfolio of professional quality contemporary fiction. Prerequisite: admission to the graduate creative writing program.

ENG 651 Graduate Poetry Workshop (4; maximum 16)
Study and practice in writing poetry with attention to the advanced, preprofessional poet's aesthetic, formal and conceptual concerns. Emphasis on group critiquing student work and on revising manuscripts, with the goal of producing a portfolio of professional quality contemporary poetry. Prerequisite: admission to the graduate creative writing program.

ENG 652 Issues in Creative Writing (4)
Analytical and practical approach to selected topics in creative writing. Focus changes each term. Criticism as well as creative compositions are produced. Prerequisite: admission to the graduate creative writing program.

ENG 660 Studies in 20th Century Literature (4; maximum 12 toward any degree)
Intensive study of selected 20th century writers such as Auden, Eliot, Huxley, Joyce, Lawrence, O'Casey, Shaw, Spender, Synge, Woolf, Yeats, or of a literary group, a genre, or a tradition.

ENG 670 Studies in American Literature, 1800-1865 (4; maximum 12 toward any degree)
Intensive study of selected pre-Civil War American writers such as Dickinson, Emerson, Hawthorne, Melville, Poe, Thoreau, and Whitman.

ENG 680 Studies in American Literature, 1865-1919 (4; maximum 12 toward any degree)
Intensive study of selected post-Civil War major American writers such as Stephen Crane, Dreiser, Howells, James, Robinson, and Twain. Offered infrequently.

ENG 690 Studies in Modern American Literature, 1919 to Present (4; maximum 12 toward any one degree)
Intensive study of selected modern major American writers such as Anderson, Hart, Crane, Dos Passos, Eliot, Faulkner, Fitzgerald, Frost, Hemingway, O'Neill, Pound, Steinbeck, and Stevens.

ENG 692 Introduction to Technical and Scientific Communication (4)
Addresses history, aims, assumptions, and methods of the profession of technical and scientific communication. Introduces problem-solving as a strategy for communicating and managing

information on technical and scientific subjects. Focuses on writing theory and practice.

ENG 693 Technical and Scientific Editing (2)
Roles, responsibilities, and practices of the editor of technical and scientific communications. Prerequisite: ENG 692 (or concurrent enrollment) or permission of instructor.

ENG 694 Technical and Scientific Writing (4)
Instruction and practice at writing effective technical and scientific communications. Prerequisite: ENG 692 (or concurrent enrollment) or permission of instructor.

ENG 695 Linguistics for Technical and Scientific Communicators (2)
Linguistic theory and analysis of written and oral language use in technical and scientific environments. Prerequisite: ENG 692 or permission of instructor.

ENG 696 Managing Technical and Scientific Communication Departments, Publications, and Policies (2)
Introduction to responsibilities of people who manage technical and scientific communication systems, including in-house communication departments, independent companies, organization-wide information policies, and professional journals and similar publications. Prerequisite: ENG 692 or permission of instructor.

ENG 697 Information Design for Technical and Scientific Communicators (4)
Teaches the principles of effective document design, the role of the technical communicator in the design process, and the application of professional design principles and production techniques to create effective print and non-print communications. Prerequisite: ENG 692 or permission

ENG 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

ENG 701 Internship in Technical and Scientific Communication (1-12; minimum 6, maximum 12)
While working full-time as a technical and scientific communicator, student applies knowledge gained in course work to practical experience in professional situations. Student works for a business, government, or nonprofit organization under guidance of an appropriate mentor. Prerequisites: COM 619; ENG 602, 692, 693, 694, and 697.

ENG 710 Intra-disciplinary Seminar in English Studies (4; maximum 8)
Advanced study of a topic, integrating approaches from the sub-disciplines of English, including composition/rhetoric, creative writing, and literary studies.

ENG 730 Studies in Composition Research and Pedagogy (4; maximum 12 toward any one degree)
Intensive study of one or more areas of composition research, theory, or pedagogy such as design, testing and evaluation, discourse theory, history of composition, invention, syntax, style, and composing process.

ENG 731 The Theory and Practice of Teaching Composition (4)
Examination and evaluation of current methods and strategies for teaching college writing with emphasis on classroom application of composition theory and research. Major topics include composing process, invention, argumentation, the sentence and the paragraph, testing and evaluation, recent research in composition, reading and writing, and composition and literature. Prerequisite: graduate standing. Summer only.

ENG 732 Histories and Theories of Composition (4)
Study in one or more of the histories, theories, and practices of composition from the 19th to the 21st centuries.

ENG 733 Studies in Rhetoric (4)
Historical, theoretical, and analytical approaches to uses of spoken and written discourse (political, legal, literary, scientific, philosophic, etc.).

ENG 734 Issues in Digital Composition Pedagogy (4; maximum 12)
Study in one or more of the histories, theories, and practices of composition from the 19th to the 21st centuries. Prerequisite: ENG 731 or equivalent.

ENG 735 Research Methods in Composition (4)
Introduction to methods of qualitative and quantitative research in the study of writing. Prerequisite: ENG 731 or equivalent.

ENG 736 Linguistics and Writing (4)
Study of language and other symbolic practices in historical and cultural contexts of exchange. Prerequisite: ENG 601 or equivalent. Offered infrequently.

ENG 740 Literary Criticism and Theory (4; maximum 12)
Intensive study of recent developments in literary theory and criticism. Prerequisite: ENG 603 or equivalent, or permission of instructor.

ENG 750 Histories and Methodologies in Literary and Cultural Studies (4; maximum 8)
Practicum centering on an area of contemporary theory/critical practice that students integrate with their interests. Required for literature doctoral students, who may take the course again when topic changes; suggested for Masters' students intending to pursue doctoral work. Detailed description of scheduled topics available from the Director for Graduate Studies. Prerequisite: ENG 603 or equivalent.

ENG 751 Special Problems (1-6; maximum 6 toward any degree)
Special research study in a topic not covered in a regular course, usually culminating in an essay of the kind found in literary journals. Application for this course must be made by the 14th week of the previous semester or by the end of the first week of new semester, and approved by departmental committee.

ENG 752 Independent Study in Technical and Scientific Communication (1-6; maximum 6).
Individual or team research on a topic related to technical and scientific communication. Prerequisite: graduate standing and approval by executive committee of technical and scientific communication program.

ENG 850 Research of Doctoral Dissertation (1-16; minimum 16, maximum 60 depending on departmental requirements)

ENTREPRENEURSHIP COURSES (ESP-Business)

ESP 151 Rewards of an Entrepreneurial Life (1)
This first year seminar is required for all participants in the Entrepreneurship Living Learning Community (ELLC). Through readings, discussions, teaching cases, guest speakers and field trips students will learn what it means to be an entrepreneur and how they can use entrepreneurship to pursue passions in business, their community and personal lives. Students will be exposed to both the rewards associated with entrepreneurship and the challenges such as work/life balance. Students will be given an opportunity to use the course content to develop and execute a community service project as part of their ELLC experience.

ESP 201 Introduction to Entrepreneurship (3)
Topics include requirements and challenges of successful entrepreneurship, characteristics of successful entrepreneurs, the life cycle stages of a business, careers and opportunities for entrepreneurship. Not open to business students above sophomore standing.

ESP 293 Entrepreneurship: Dilemmas and Debates (1)
Successful and unsuccessful entrepreneurs explore unique challenges, controversies, and choices encountered in starting and growing new ventures.

ESP 306 Financial Aspects of Entrepreneurial Ventures (3)
Focuses on financial issues and needs confronting start-up entrepreneurs and entrepreneurs attempting to grow their small businesses. Targeted to non-finance major; does not require extensive accounting or financial background. Exposure to tools, concepts, and approaches related to financial operations of start-up ventures with emphasis on the application of this material using a series of real-world cases. Includes determining how much money the entrepreneur needs, where to go for it, how to put together a financial picture of the venture, how to place a value on a venture.

ESP 311 Entrepreneurial Marketing (3)
Role of marketing in entrepreneurial ventures and role of entrepreneurial thinking in marketing practice. Examination of innovation in marketing, especially when operating under time, budget, and limited marketing information constraints.

ESP 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/DSC/ECO/FIN/MGT/MIS/MKT 330.

ESP 366 Imagination and Entrepreneurship (3) MPT
Application of creative thinking in addressing business opportunities and problems, especially within an entrepreneurial context. Systematic approach to creating, evaluating, refining and selling breakthrough ideas. Exposure to a number of techniques, concepts and methods useful in managing the creative process in individual and group contexts with emphasis on accountability for creative quality. Involvement interactive and experiential approaches.

ESP 461 Small/Emerging Enterprise Consulting (3) MPC
Students apply problem- solving methodology by consulting selected local small businesses that have requested management assistance. Each selected company demonstrates a wide range of problems crossing the fields of finance, marketing, accounting, production, human resources, information systems, computer systems, strategic and tactical planning, growth and downsizing, procurement, control of inventory, quality control, and forecasting. Students learn to integrate and apply their business knowledge in "real world" settings and test their analytical skills by confronting and solving complex business problems.

ESP 464 Social Entrepreneurship (3)
Examines the rewards, requirements and challenges associated with building and growing enterprises that are both self-sustaining and focused on a social mission. During the course, students will apply their knowledge through self-initiated or client based projects.

ESP 467 Entrepreneurship: New Ventures (3) MPC
Cross-disciplinary and integrative approach to the identification of unmet market opportunities and the creation of new ventures that capitalize on these opportunities. Case-oriented approach. Students create business plans for ventures based on original concept. Student teams compete in the Miami Business Plan Competition with finalists selected to compete in a national business plan competition. Prerequisite: Senior standing.

ESP 469 Entrepreneurship in Complex Organizations (3)
Focuses on the value and use of entrepreneurial thinking and behavior in corporate, non-profit and public organizations. Students will examine both the benefits and challenges of acting like an entrepreneur when they may not be the owner or CEO of the organization. These concepts are introduced through research, cases and conversations with successful intrapraneurs. Perquisites: Senior standing or permission of the instructor.

ESP 481 Technology, Products & Ventures (3)
An interdisciplinary perspective on the interfaces between new product development, innovation, and technology. Examines product development capability as an essential element of successful business strategy and a key component of an "entrepreneurial mindset." Students develop a working prototype for a new product and a comprehensive new product plan.

ESP 490 Special Topics in Entrepreneurship (1-3; maximum 3)
Issue oriented seminar for juniors or seniors focusing on a contemporary topic related to the rewards, requirements and challenges associated with entrepreneurship in different environments. Prerequisite: Permission of instructor.

ENVIRONMENTAL PROGRAM COURSES (ENV-Arts and Science)

ENV 175 First Year Seminar in Environmental Science (1)
Introduces students to the multidisciplinary nature of environmental science and the solution of environmental problems. Cross-listed with BOT, CHM, GEO, GLG, MBI, MTH, STA, and ZOO.

ENV 274 Introduction to Environmental Principles (3)
Introduction to identification and study of what is typically called "environment" from social science and natural science perspectives. Differing perceptions of environmental problems and resolution strategies. Case studies of environmental concerns, such as soil erosion, global warming, protection of biotic cultural resources, urban sprawl, and energy consumption. Prerequisite(s): ECO 201 and at least one course from each of the following three categories are either pre- or co-requisite: 1)BOT 131, BOT 171, or ZOO 121; 2) GEO 121, GLG 121, and GLG 115L; and 3)
ATH 175, GEO 101, or GEO 111.

ENV 275 Principles of Environmental Science (3)
Topics include contamination of earth systems and pollution mitigation; use, abuse, and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. Emphasis is on the multidisciplinary nature of environmental problems and their solutions. Prerequisites: at least one course from each of the following three categories is either pre- or co-requisite: 1) BOT/MBI/ZOO 115 or BOT 191 or ZOO 113; 2) CHM 111 or CHM 142/5; and 3) GLG 111 or 121 or 141 or GEO 121. Cross-listed with BOT, CHM, GEO, GLG, MBI, MTH, STA, and ZOO.

ENV 440/540 Contemporary Topics in Environmental Sciences (1-3; maximum 3)
An examination of historical and current world environmental conditions. Cross-listed with IES 440/540.

ENV 474 Environmental Practice (3)
Critical assessment of local, national, and global environmental issues. Perspectives on strategies for addressing and resolving environmental concerns. Reflection on application of environmental principles to actions outside the classroom. Prerequisite(s): ENV 274 and permission of instructor.

ENVIRONMENTAL SCIENCES COURSES, INSTITUTE OF (IES-Interdepartmental)

IES 244 Introduction to Environmental Engineering (3)
Introductory design concepts for the control of water pollution, air pollution, and solid waste will be covered. Environmental legislation will be discussed. Solutions to environmental problems will be investigated, considering technical, economical and ethical aspects of engineering. Cross-listed with PCE 244. Prerequisites: CHM 137 or CHM 141 or equivalent, MTH 151 or equivalent.

IES 411/511 Environmental Measurements (4)
Laboratory and field course in basic systems and techniques used to measure environmental parameters. Content varies, but has included: terrestrial ecology, air sampling, chemical analysis, waterflow, mapping, geographical information systems, and social systems.

IES 413/513 Environmental Policy Making and Administration (3)
Introduces students to problems and techniques of promulgating and implementing solutions to environmental problems, specifically various requirements of policy making and implementation in private and public institutions of society. Prerequisite: Upper-level undergraduate or graduate status.

IES 414/514 Latin American Environmental Affairs (3) MPT
Focus on the issues of human relationships with the land in Latin America and the Caribbean. Emphasis placed on understanding indigenous cultures, colonial ecological exchanges, and the environmental implications of national development policies, and international efforts for protection of the environment. Cross-listed with LAS.

IES 415/515 Coral Reef Ecology (5)
Examines the coral reef environment including its biology, geologic setting, chemical and physical characteristics, and its relation to fossil coral reefs and global climate change. This course is taught on-site in the Bahamas. Prerequisite: SCUBA certification required, previous tropical field course experience or permission of instructor. (415) CAS-D. Cross-listed with GLG 415/515 and LAS 417/517.

IES 416/516 Connections: Understanding Tropical Ecology and Natural History via Belize, Central America (5)
Intensive summer workshop exploring tropical ecology (terrestrial and marine) and human natural history in Belize, Central America. Emphasis is placed on habitat types and cultural use of different habitats. Environmental issues raised include the coexistence of human populations, agriculture, and natural habitats with normal diversity of native species. Cross-listed with GEO/LAS. Prerequisite(s): a college course in biology, environment concepts, or related topics.

IES 423/523 Tropical Marine Ecology (5)
Investigates aquatic systems (estuaries, mangroves, coral reefs, seagrass beds, lagoons, beaches, intertidal zones, taxonomy of vertebrates and invertebrates of coral reefs, lagoons and tidal flats) paleobiology and global climate change (paleo-reconstruction of

past lagoon environments, fossil coral reefs, and land use). Student research questions concerning biological and physical analyses of a select marine habitat are required. The course is taught on-site in the Florida Keys and the Bahamas. There are additional costs beyond tuition. Cross-listed with GEO/GLG/LAS.

IES 431/531 Principles and Applications of Environmental Science (3) MPT
Analysis of the relationship of human beings to the environment, specifically assessment of their impact on the environment as a whole. Attempts to outline the evolution and present status of many environmental problems, presents possible solutions, and attempts to predict our future relationship with nature. Prerequisite: upper-level undergraduate or graduate status.

IES 440/540 Contemporary Topics in Environmental Sciences (1-3; maximum 3)
An examination of historical and current world environmental conditions. Cross-listed with ENV 440/540.

IES 450/550 Environmental Law (3)
Introduction to the origins of environmental law; discussion of regulatory agencies; regulation of water pollution, hazardous substances, solid waste, land use, and air pollution. Prerequisite: upper-level undergraduate or graduate status.

IES 610 Professional Service Project (2)
Major environmental project of concern to a local government or nonprofit organization in southwest Ohio is assigned to a group of students working as a team. The team is expected to develop solutions to the problem during two semesters. Prerequisite: admission to IES.

IES 611 Environmental Problem Solving and Analysis (1)
Methodologies employed in solving environmental problems, with emphasis on process models, levels of measurement, dynamics of planned change, communication of innovations, public involvement, developing and analyzing alternatives, and approaches of various disciplines to data gathering and analysis. Prerequisite: admission to IES or permission of instructor.

IES 612 Environmental Analysis and Modeling (4)
Introduction for graduate students to various methods of data analysis, forecasting, and building and use of computer simulation and optimization models for analysis and solution of environmental problems. Prerequisite: basic course in statistics and admission to IES or permission of instructor.

IES 620 Topic Seminar (1)
Seminar on environmental topics of current importance such as risk assessment. Prerequisite: admission to IES or permission of instructor.

IES 660 Advanced Topic Seminar (1-4)
Discussion of relevant environmental problems under the direction of faculty competent and interested in the specific topics under consideration. Prerequisite: graduate standing.

IES 670 Environmental Practicum (1-12; minimum 6, maximum 12)
Provides advanced graduate student with opportunity to apply acquired knowledge to the solution of an environmental problem. Prerequisite: satisfactory completion of comprehensive examination.

IES 680 Environmental Internship (1-12; minimum 6, maximum 12)
Provides advanced graduate student with opportunity to apply acquired knowledge while working for approximately six months with an appropriate sponsoring organization actively involved in interdisciplinary environmental activities. Prerequisite: satisfactory completion of comprehensive examination.

IES 690 Special Problems in Environmental Science (1-4; maximum 6)
Independent or team research on a current environmental problem.

IES 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)
Prerequisite: satisfactory completion of comprehensive examination.

FAMILY STUDIES AND SOCIAL WORK COURSES (FSW-Education, Health and Society)

FSW 201 Introduction to Social Work (3)
Provides an introductory understanding of human needs, social values, ideologies and institutional structures that have shaped the evolution of social welfare values and responses in America. The development of social work as a profession closely parallels the development of the social welfare system as we know it today. Traces the development of social welfare needs and the response of the social work profession.

FSW 206 Social Welfare: Impact on Diverse Groups (4) MPF
Critical analysis of historical and current interactions of social welfare policies, programs, and services with diverse recipient populations. Attention given to contexts in which social welfare has been developed and provided. MPF IIC

FSW 207 Serving and Supporting Children, Youth, and Families I (4) MPT
Introductory analysis of relationships among the conditions, characteristics, and capacities of children, youth, and families (especially those labeled "at risk") and the institutional services and supports intended to improve their well-being. Emphasis placed upon question-finding in different contexts, especially the ways in which the knowledge we claim and the solutions we offer are dependent upon our analytical frames and language. Offered at regional campuses only. Cross-listed with KNH 207.

FSW 208 Serving and Supporting Children, Youth, and Families II (5) MPT
Focuses upon children, youth, and families experiencing needs, problems, and crises. Today's institutional services and supports are analyzed and evaluated both in class and in educational, health, and social service agencies. Students shadow helping professionals in these agencies during directed field experiences. Offered at regional campuses only. Cross-listed with KNH 208.

FSW 221 Human Sexuality (3)
Introduction to the study of human sexual behavior with particular attention paid to the issues of gender development; premarital, marital, and post-marital sexual patterns; birth control; sexual dysfunction; cross-cultural sexual patterns; and alternative sexual lifestyles. Cross-listed with SOC and WMS.

FSW 261 Diverse Family Systems Across the Life Cycle (3) MPF, MPT
Introduction to and survey of the diversity of family systems. Emphasizes the North American experience while drawing upon global understandings. Covers the nature of family systems and how these may vary by social class, ethnicity, urban-rural residence, and other aspects of sociocultural context. Stresses how family systems change across their life span, as well as how individuals experience different family systems in their life spans. IIC.

FSW 262 Current Controversies (4) MPT
This seminar explores divergent viewpoints on a variety of family issues. Students are expected to actively participate in discussions, debates, and other forums that are designed to help develop sustainable personal and professional stances concerning vital issues facing contemporary families and their members.

FSW 281 Child Development in Diverse Families (4) MPT
Study of physical, cognitive, and affective development of children from birth to 12 years; observation and application of principles in family, community, and educational settings. Prerequisite: three hours in a social science.

FSW 283 Introduction to Child Care Administration (3)
This course is intended for persons intending to work with young children and their families in a variety of child care settings and will focus on the development of knowledge and skills in understanding various aspects of child care administration and management. Offered at regional campuses only.

FSW 293 Field Placement-Infant/Toddler Setting (3)
Course designed for students who are assuming teaching responsibilities for an extended period of time under guided supervision in an infant/toddler program. Prerequisites: EDP 201 and EDT 246, EDT 272; and EDT 273 or 274. Co-requisite: FSW 382 must be taken prior to or concurrently with FSW 293. Offered at regional campuses only.

FSW 294 Field Placement-Preschool Setting (3)
course designed for students who are assuming teaching responsibilities for an extended period of time under guided supervision in an infant/toddler program. Prerequisites: EDP 201 and EDT 246, EDT 272; and EDT 273 or 274. Offered at regional campuses only.

FSW 295 Research and Evaluation in Family Studies and Social Work (4)
Techniques needed to understand and evaluate research within social work and family studies are explained. Quantitative and qualitative approaches to gathering and interpreting data are addressed. Prerequisite: STA 261 or permission of instructor.

FSW 306 Social Work Practice I (4)
Prepares students for generalist baccalaureate- level social work practice. Built on a foundation of liberal education courses and introductory-level social work courses in human behavior in the social environment and social welfare. Focuses on the knowledge and skills of the social work process. Specific attention given to microlevel systems, emphasizing the interactions of micro systems with mezzo- and macro-level systems. Prerequisite: ECO 201, FSW 201, SOC 151, PSY 111, and ZOO 161 (each completed with a grade of C or above), FSW 261, and social work major status.

FSW 309 Social Welfare Policy II (3)
Promotes knowledge of the nature and impact of policy decisions on the social welfare of diverse groups. Special attention given to disenfranchised, oppressed, and impoverished groups. Students acquire beginning skills in policy practice and value-driven advocacy. Prerequisite: FSW 206.

FSW 312 Human Behavior in the Social Environment (3)
Examines diverse human behavior through an integration of various theoretical perspectives using a social systems approach. A social systems approach provides a framework to view individuals in the context of the family, groups, organizations, communities, and institutions. Integrates knowledge and develops a foundation necessary for social work practice and social work field experience.

FSW 361 Couple Relationships: Diversity and Change (3)
Investigation of intimate couple relationships in their many diverse forms. Focuses on social and psychological factors influencing development and maintenance of such couple relationships as dating, cohabitation, and marriage. General principles are discussed as well as factors that are more specific to certain age groups, relationship types, or sociocultural settings. Prerequisite: three hours of social science. Cross-listed with WMS 361.

FSW 362 Family Poverty (3)
Examines definitions, theories, causes and consequences of family poverty in the U.S. Identifies the extent and degree of U.S. poverty and demographic characteristics of those who are poor or likely to become poor. Consideration given to programs that reduce poverty and/or its negative effects, including those practiced in the past, those now practiced, and those that offer promise for improving the economic and social status of those who are poor. Costs and benefits of welfare and welfare reform and strategies for preventing poverty among future generations also discussed and evaluated. Prerequisite: FSW 295 or SOC 262. Cross-listed with BWS 362 or permission of the instructor.

FSW 363 Sociology of Families (3)
Analysis of the impact of social change on family systems and patterns, structures, dynamics, and social policy, with emphasis on differences by social strata and culture. Cross-listed with SOC.

FSW 365 Family Life Sexuality Education Across Cultures (3) MPT
Addresses cultural issues related to sexuality education, sexual behavior, and sexual identity. Comprehensive overview of the biological and social aspects of human sexuality, specifically directed at training for family life educators. Differences in cultural background are examined and presented as powerful educational tools to be applied toward the improvement of communication about sexuality. Presents a variety of teaching strategies for different age groups, which will meet licensure requirements for family life educators.

FSW 381 Parent-Child Relations in Diverse Families (3) MPT
Introductory course examining parenting responsibilities and skills to explore knowledge concerning parenting, to examine structure of families as it relates to parenting, and to examine parental behaviors, styles, and relationships.

FSW 382 Infant and Toddler Caregiving and Supervision (3) MPT
For those who plan and provide care for infants and toddlers in families and in various types of child care settings. Concepts in care provided with activities to help students develop caregiving knowledge and skills. Offered at regional campuses only.

FSW 406 Social Work Practice II (4)
Prepares students for generalist baccalaureate- level social work practice. Built on a foundation of liberal education courses and introductory-level social work courses in human behavior in the social environment and social welfare. Focuses the knowledge and skills of the social work process with specific attention to groups and community. Prerequisite: FSW 306 and social work major status.

FSW 411 Social Work Senior Practicum (6)
Provides social work majors with the opportunity to integrate and apply liberal education foundation and generalist social work knowledge and skills gained in the classroom by practicing with various sized systems, including individuals, families, groups, agencies, communities, and institutions. Prerequisite: Social Work major status and permission of instructor.

FSW 412 Senior Seminar in Social Work I (2)
Offered fall semester during senior year; is the first of two seminars. Provides opportunity to continue the integration of liberal education requirements and social work courses with field experiences. Co-requisite: FSW 411.

FSW 413 Senior Seminar in Social Work II (2)
Offered spring semester during senior year. Provides opportunity to continue the integration of liberal education requirements and social work courses with field experiences. Focuses on experiences and knowledge regarding macro-level systems, however, students are expected to integrate and apply generalist social work knowledge and skills with multi-level, diverse systems. Co-requisite: FSW 411.

FSW 418/518 The Family Life Education Process (3)
In-depth examination of family life education process. Students gain understanding of educational principles to develop curricula for various family life education settings. Program design, delivery, and evaluation are covered. Prerequisite(s): FSW 295 or SOC 262.

FSW 450/550 Special Problems (1-4; 8 maximum toward any undergraduate degree; 550 and 600 combined: 4 maximum toward any graduate degree)
Various topics offered across semesters, professors, or sections. Prerequisite: upperclass or graduate standing in family studies and social work

FSW 451/551 Family Violence (3)
Analysis of research and theory on family violence, physical abuse of children, sexual abuse, neglect, premarital abuse, wife abuse, gay/lesbian battering, elder abuse, prevention and intervention. Basic framework is ecological/feminist, emphasizing an examination of family dynamics as well as broader historical, social, and patriarchal contexts. Cross-listed with SOC/WMS.

FSW 461/561 Marital distress and divorce: implications for family life professionals (3) MPT
Analyzes marriage, divorce, and remarriage in cultural and socioeconomic context. Antecedents of divorce, including contextual and social-psychological factors influencing levels of marital distress, are reviewed. Consequences (including remarriage) of marital instability for adults, children, and society are identified. Educational and programmatic implications discussed.

FSW 462/562 Family Policy and Law (3) MPC
Examines family policies related to U.S. families' well-being using an ecological framework. Considers the impact of family policies/laws at state and federal levels including: policy development, implementation, and evaluation; and roles of professionals in building/influencing family policy. Prerequisite(s): FSW 295 or SOC 262 or permission of the instructor.

FSW 464/564 Perspectives on Close Relationships (3)
Addresses different types of relationships, various processes that occur in these relationships, and some of the assumptions and concepts involved in close relationships. Draws upon knowledge from the domains of philosophy, social psychology, communication, family studies, sociology, psychology, and women's studies. The goal of this class is to help students better understand some of the factors affecting relationships and to appreciate the impact of some of the processes in their own lives.

FSW 465/565 Child Maltreatment (2)
This seminar focuses on the scope, problems, and issues related to child maltreatment in America. Emphasis placed on problem identification and program implementation for schools and other social service settings. Summer only, as a workshop. Offered infrequently.

FSW 466/566 Later Life Families (3) MPT
Examination of family kinship patterns during mid and later life. Topics include relations with romantic partners, adult children, siblings, and other kin, as well as widowhood grandparenthood, friendships, and policy issues impacting mid and later life families. Cross-listed with GTY.

FSW 475/575 Family Theories (3)
Analysis of selected theories of the family. Emphasis placed on conceptual knowledge, understanding of the importance of family theories and in-depth analysis of several theoretical frameworks,

such as family process, conflict, and symbolic interaction. Prerequisite: six hours of family relations courses and upperclass or graduate standing, or by permission of instructor.

FSW 481/581 Adolescent Development in Diverse Families (3) MPT
Provides a broad interdisciplinary examination of the field of adolescent development from contextual and cross-cultural perspectives. Focus includes sensitivity to racial, ethnic, and cultural diversity while studying persons 10 to 20 years of age within family systems. Cross-listed with EDP.

FSW 485/585 Social Work in a Diverse World (3)
Enhances understanding and sensitizes students to our increasingly diverse society. Provides content about differences and similarities, needs and beliefs of minority groups and their relations to the majority group.

FSW 490/590 Professional Issues in Family Science (3)
Seminar focusing on preparing family studies major, minor, and graduate students for life (work or continued education) in the field. Topics and skill development that are covered include: family studies as a profession (e.g., what do I do with my degree?); applying for a job (e.g., resumes, cover letters, interviewing skills, job searching); professional ethics; applying for graduate school (e.g., choosing graduate programs; statements of professional goals, etc); developing a professional portfolio; and an introduction to the grant writing process. Prerequisite(s): Senior or graduate standing.

FSW 491/591 Seminar in Family Studies and Social Work (1-4;maximum 4)
Various topics offered across semesters, professors or sections. Prerequisite: upperclass or graduate standing in family studies and social work.

FSW 492/592 Families in Global Context (4)
Course investigates the current state of affairs of families worldwide. Special attention is given to globalization, poverty, war, migration, immigration, and religion. Students are required to develop a term paper, detailed research proposal, or a manuscript on topic related to course suitable to be submitted for publication consideration. Prerequisite(s): FSW 295 or SOC 262 or permission of the instructor.

FSW 493/593 Qualitative Methods in Family Research (3)
This course is intended as an introduction to qualitative methodology for upper-level undergraduate and master's-level graduate students in family studies and related fields. The particular emphasis of this course is on fieldwork, or a set of techniques involving firsthand contact between the researcher and those who are the subjects of the research. This includes training in observation, in-depth interviewing, visual and textual analysis, and secondary analysis of qualitative data. Prerequisite(s): Advanced standing, 12 hours of FSW coursework, FSW 295 or SOC 262 or equivalent.

FSW 494/594 Internship with Families and Children (2-3; maximum 6)
Students participate in a professional work environment, prepare written reports and journals, and complete a project. Students build upon previous knowledge and experience by working within, and critically appraising, a professional setting related to families and/or children. Focus is on professional development and the critical appraisal of career options. Recommended that students enroll in the summer between junior and senior years. Number of clock hours in placement varies by credit hours; typically 90 hours for 2 graduate or 3 undergraduate credits. Students wishing to become Certified Family Life Educations must complete 125 clock hours and focus their internship experiences on the practice of family life education or prevention. Prerequisite: orientation and approval of instructor.

FSW 495/595 Advanced Survey of Family Science (3)
Examines recent literature/trends in key areas of Family Science, including mate selection, marital stability/quality, divorce, remarriage/stepfamilies, parent-child relationships, adolescents, family violence, family policy, same-sex couples/families, culturally diverse families, family economics/social class, work and family, household division of labor, aging and families. Prerequisite: FSW 261.

FSW 498 Critical Thinking About Family Relationships (4) MPC
Each semester this Capstone addresses critical family issues and students develop position papers grounded on multiple sources of information (e.g., scholarly literature, interview, personal values). The topic of the course is determined by the instructor and may vary from semester to semester.

FSW 600 Independent Reading (1-4; 4 maximum of FSW 550 and 600 combined)
Planned reading in any field in family studies with guidance of a department faculty member. Prerequisite: advanced standing, nine semester hours in family studies and social work, and approval of the plan by department chair.

FSW 614 Family-Community-School Partnerships (3)
Analysis of school-linked and community-based partnerships aimed at enhancing the well-being of children, youth, families and schools. Family-centered, culturally-responsive practice principles and empowerment strategies are emphasized. Cross-listed with EDL.

FSW 617 Education for Human Sexuality (3)
Reviews current information on biological and social aspects of human sexuality, specifically directed at graduate training for educators (i.e., school personnel, social service agencies, etc.). Differences in cultural background examined to provide an understanding of how cultural differences affect learning of meanings attached to behaviors involved in sexualities and how they impact pedagogy and class/group dynamics. Cross-listed with KNH. Offered infrequently.

FSW 620 Practicum in Family Life Education (2)
Students develop a topic within the family life education area and present a series of lectures or speeches, workshop, or extensive written materials. Participate in an oral presentation within an educational or community setting. Presentation grounded in contemporary research within family and child studies. Prerequisite: FSW 518 or permission of instructor. Offered infrequently.

FSW 660 Family Diversity in the United States (3)
The focus of this course is diversity. There is great diversity among families in the United States, not only structure (single-parent, stepfamilies), race/ethnicity (Asian-American, Hispanic), religion (Catholic, Muslin), and immigrant status (illegal, recent, native born), but also in social class, sexuality, sexual orientation, health/disabilities, number of children, parenting, care for dependent members, school readiness and many other functional, structure, and "categorical" ways. In this course each student will pick one topic to explore in depth, become an "expert" and share this knowledge with the rest of the class.

FSW 681 Parenting Theories and Applications (3)
In-depth exploration of theories about parenting and their practical applications for a variety of family settings. Focus includes sensitivity to racial, ethnic, and cultural diversity issues. Prerequisite: introductory parenting course, such as FSW 381.

FSW 685 Family Systems and Stress (4)
In-depth understanding of theory and research related to family systems and stress. Emphasizes the family as a system and how families identify, manage, and adapt to internal and external stressors. Discussion of family life education and other intervention techniques. Offered infrequently.

FSW 686 Men in Families (3)
Extensive study of the roles that men play in families. Various symbolic interactionism and phenomenological theoretical models are reviewed and used to build greater understanding of how men construct their family roles and give meaning to their social interactions. Offered infrequently.

FSW 691 Advanced Seminar in Family and Child Studies (1-4)
Advanced study of family and child studies in higher education and research methods of graduate students. Prerequisite: graduate standing. Offered infrequently.

FSW 695 Applied Research Techniques in Family and Child Studies (4)
Techniques for research in the areas of child and family studies. Family and child studies research examined from the perspective of the consumer or producer of research.

FSW 700A Thesis: Independent Research (1-3; 6 required, maximum 6 toward any one degree)
Prerequisite: approval of faculty member.

FILM STUDIES COURSES (FST-Arts and Science)

FST 146 Media Aesthetics (3)
Introduction to media aesthetics. Students develop awareness of artistic choices necessary for good television production. They are

introduced to design elements and techniques available for use in media production. Students discuss and participate in creative visual thinking. Prerequisite: major status or permission of instructor. Cross-listed with COM 146.

FST 201 Introduction to Film Criticism and History (3) MPF, MPT
Introduction to basic principles of cinematic form and to major movements and issues in the history of cinema. Primary emphasis given to principal methods of critical thinking in film studies, from close analysis of formal and stylistic elements in a single film to more global ways of understanding and interpreting films within their aesthetic, social, historical, and political contexts. Includes screenings of representative films, lectures, discussions, group activities, papers, and exams. IIB.

FST 204 Brazilian Culture Through Popular Music (3)
Through music, lyrics and rhythms this course raises questions about history, national identity, social, religious, and ethnic diversity in Brazil. Cross-listed with BWS/LAS/MUS/POR 204.

FST 205 American Film as Communication (3) MPT
Introduction to the study of communication via American motion pictures. Focuses on analysis of technical and narrative elements found in motion pictures. Screening of films provides backdrop for discussing visual impact of motion pictures as significant form of mass communication. Cross-listed with COM 205.

FST 206 Diversity and Culture in American Film (3) MPF
Analysis of the representation of diversity and culture as portrayed in American motion pictures. Cross-listed with COM 206 and IDS 206. IIB. Cul.

FST 220 Literature and Film (3; maximum 6) MPT
Study of the relationship between film and genres of literature, focusing on a comparison of techniques of rhetoric, fiction, and drama, and those of film. Primary consideration given to film adaptations of works of fiction and drama. Extensive screenings of film. May be repeated once when topic changes. Cross-listed with ENG 220. CAS-B-LIT.

FST 221 Shakespeare and Film (3) MPT
Study of selected plays of Shakespeare that have been filmed. Students read plays and view one or more versions of each play. Cross-listed with ENG 221. CAS-B-LIT.

FST 222 Italian American Culture (3) MPF
A survey and investigation of the history of Italian immigration in America, the development of Italian American communities across the land, and the contributions that Italian Americans have made to American society and culture. Taught in English. No prerequisites. Offered once a year. Cross-listed with AMS and ITL. IIB, H. CAS-B.

FST 235 Classics of Film (3)
Study of film classics from the silent era to the present. Particular attention is given to the evolution of narrative conventions in films such as Birth of a Nation, Potemkin, The Last Laugh, M, Citizen Kane, Rome: Open City, Hiroshima Mon Amour, and others. Weekly screenings. Cross-listed with ENG 235. Offered infrequently.

FST 236 Alternative Traditions in Film (3) MPT
Study of major films and cinematic trends in world cinema. Emphasis on film in which the classical conventions of narrative are questioned or disrupted. Study motives and methods of film makers whose concern is not primarily the telling of a story or for whom the conventional entertainment narrative is an object of radical investigation. Cross-listed with ENG 236.

FST 251 Gender & Third World Film (3)
Analysis of selected films from the perspectives of film technique and the political, economic and social context of filmmaking in Africa, Asia, the Middle East and Latin America. How film techniques are used to highlight cultural views of gender. Cross-listed with HST 251.

FST 255 Visual Representations of the Holocaust (3)
Studying the Holocaust is a profound responsibility yet also presents a tangle of critical and philosophical questions. The role of visual representations in the process of Holocaust memorialization has been particularly contested. In this course, we will approach the question of the visualization of the Holocaust through various media: photography, cinema, TV, graphic novel, painting, and architecture. Visual technologies afford an unparalleled means of sustaining memory but are also susceptible to voyeurism and commodification. We will explore the potentialities and limitations of these media and grapple with critical ethical, epistemological and esthetic questions they raise. Course readings and class discussions in English. Cross-listed with FRE/GER.

FST 252 Representation of History in Film and Video (3)
Attempts to familiarize students with ways that history is represented in film and video (as opposed to print). By comparing film to texts, analyzing narrative structure, and studying the techniques of film and video making, students learn how history is depicted in this medium. Introduces history of film by viewing and discussing works of several early directors who represented history. Films and directors selected for inclusion will vary from year to year. Cross-listed with HST 252. Prerequisite: FST 201 recommended (not required).

FST 261 German Cinema (3) MPT
Survey of the German cinema from its golden age in the 1920s to the present day. Representative films studied both as aesthetic works and as historical artifacts. Films with English subtitles. Readings, lectures, and discussions in English. Cross-listed with GER 261.

FST 262 Italian Cinema (3) MPT
Discussion and analysis of major movies and trends in Italian cinema. Topics may vary but attention is given to social and ideological implications of Italian cinema and the way movies produce a critique of cultural mores. Taught in English. No prerequisites. Offered once a year. Cross-listed with ITL 262. CAS-B-LIT.

FST 263 Soviet and Post-Soviet Russian Cinema (3) MPT
Critical survey of directors, genres, and movements in Soviet cinema. Screening of films from Eisenstein to current directors. Lectures, discussion, and readings in English. Cross-listed with RUS 263. CAS-B-LIT.

FST 264 Chinese Cinema and Culture (3)
Study of selected films. Introduces Chinese cinema and, through films, Chinese culture. Works are from mainland China, Taiwan, and Hong Kong, and subject matter is both historical and modern. Knowledge of Chinese is not required. Cross-listed with CHI 264.

FST 265 European Jewish Cinema (3)
Survey of films by Jewish filmmakers, or films dealing with Jewish themes, from the 1920s to the present. Films with English subtitles. Readings and discussions in English. Cross-listed with FRE/GER 265.

FST 266 Survey of Japanese Cinema (3)
This course examines representative Japanese films from the immediate post-war era to the new wave of Japanese anime (animated film). Offered in English. Cross-listed with JPN 266.

FST 267 National Cinemas: African Film (3)
Explores the cinematography of Black Africa. Topics may vary but the focus will be given to social and ideological implications of African cinema and the way films produce a critique of cultural mores. Cross-listed with BWS 267.

FST 272 Cultures and Identifies of Eastern Europe: An Introduction through Literature and Film (3)
An introduction to the cultures of Eastern Europe, from Poland to the former Yugoslavia, through representative twentieth-century literary works and films, with particular focus on the history of Eastern Europe's Jewish community and the tragedy of the Holocaust. Cross-listed with RUS 272. CAS-LIT-B.

FST 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3) MPF
Examines both the treatment of gay, lesbian, bisexual, and transgendered persons by the mass media and the voices of the gay, lesbian, bisexual, and transgendered persons as producers of media messages and as activists who influence media messages. The Kinsey Report, the Stonewall Riots, and the AIDS epidemic serve as major culture milestones for tracing the evolving portrayals of diverse sexualities. Cross-listed with COM 281.

FST 282 Sexualities and Film (3)
An exploration of film representations of diverse sexualities (e.g., gay, lesbian, bisexual, and transgendered) from the silent era to the present. Cross-listed with COM 282.

FST 302 War and European Cinema (3)
Explores how films have constructed ideas about war in 20th Century Europe. Examines films of the First World War, the Second World War, the Balkan War of the 1990s, and the Chechen War. Through readings, discussions, and viewings, students will gain a better understanding of how war is represented on the "big screen" and how wars of the 20th Century have been remembered and recast in film. Cross-listed with HST 302.

FST 350 Topics in Film (3)
In-depth and concentrated studies in film. Focuses on specific topics in film such as national film traditions (American, Japanese, French, etc.), genres (science fiction, western, detective, etc.), and themes (film and society, women in film, political conspiracy, etc.). May be repeated once when topic changes. Cross-listed with ENG 350.

FST 366 French Cinema In Translation (3) MPT
Critical survey of major directors, genres, and movements in French cinema. Particular attention devoted to development of film theory and criticism in France and their relation to film production. Screening of films by Renoir, Bresson, Bunuel, Godard, Truffaut, Varda, Resnais, Tavernier, and others. Taught in English; reading in English translation. Cross-listed with FRE 366. CAS-B-LIT.

FST 381 African Lusophone Literature (3)
A focus on questions of gender, race, class and stereotypes in the African Lusophone countries. Taught in English. Prerequisite: Any literature course. Cross-listed with ENG/BWS/POR.

FST 401 Seminar in Film Study (3)
Students critique series of seminal analyses of films as preparation for development of their own research projects. Prerequisite: FST 201 and nine credit hours of course work in courses cross-listed for the film studies minor.

FST 415 Cuba in Revolution: Its History, Politics, and Culture (4) MPC
A history of Cuba in the 20th Century with emphasis on Cuban relations with other Latin American countries, the U.S. and Soviet Union. Examines economic, social, political and cultural issues with attention to race, class and gender. Priority given to LAS minors. Cross-listed with LAS and BWS.

FST 460 Topics in French Cinema (3) MPT
In-depth and concentrated study of French cinema. Focus on specific topics such as film's relation to society, its relation to the other arts and artistic movements, and its productive role as an object of philosophical thought. Topics may also include the work of particular directors, historical periods, and comparative social and aesthetic studies. Taught in English. Cross-listed with FRE 460/560.

FINANCE COURSES (FIN-Business)

FIN 101 Personal Finance (3)
Making informed choices related to spending, saving, borrowing, and investing continues to be the foundation of long-term financial security. This course educates students in areas such as financial planning, budgeting, federal income taxes, savings, borrowing, investing, insurance, housing, and retirement planning.

FIN 301 Introduction to Business Finance (3)
Financial management of business enterprises with emphasis upon financial analysis, working capital management, short and long term financing, capital budgeting, cost of capital, and dividend policy. Prerequisite: ECO 201, 202 or equivalent, ACC 221, 222 or equivalent.

FIN 302 Intermediate Financial Management (3)
Theoretical development of financial decision making, working capital management, capital budgeting, capital structure, and dividend policy of the corporation. Prerequisite(s): DSC 205 and FIN 301. Concurrent registration with FIN 401.

FIN 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/DSC/ECO/ESP/MGT/MIS/MKT 330.

FIN 331 Real Estate Principles (3)
Principles course dealing with features of real estate, legal descriptions, brokerage industry and licensing, ownership interests, property tax, and closing transaction. Emphasis on applying finance principles to real estate with a focus on real restate financing and investing. Prerequisite: FIN 301.

FIN 351 Principles of Insurance (3)
Nature and function of insurance and risk bearing. Fundamentals of insurance contracts with a survey of fire, casualty, life, and health insurance areas. Prerequisite: FIN 301.

FIN 401/501 Principles of Investments and Security Markets (3)
Emphasis on investment methodology, investment risks, and security selection. Introduction to security analysis, security valuation, and portfolio management; for the individual investor. Prerequisite: DSC 205 and FIN 301 or equivalent. Concurrent registration with FIN 302.

FIN 402/502 Fixed-Income Portfolio Management (3)
Consideration of securities portfolio management objectives and techniques; investment risks, and diversification strategy. Detailed consideration of bond portfolio management, mathematics of bond yields, and interest rate environment. Individual and group participation required. Prerequisite: FIN 401 or 501.

FIN 403 Portfolio Management (3)
Theory and practice of modern portfolio management. Special consideration to asset pricing theories, nature and application of derivative securities, and investment strategies. Prerequisite: FIN 401.

FIN 404 Forward, Futures and Derivatives (3)
This course covers the fundamentals of option from pricing and hedging to their use in the management of financial risk. The course begins with a thorough theoretical development of futures, forwards, options and swaps, and ends with an analysis of structured products that have embedded derivative contracts. Discussion of issues of counter-party risk and the responsible use of derivatives is an integral part of the course. Prerequisite: FIN 301.

FIN 408/508 Commercial Bank Management (3)
Operations of financial institutions. Identification and analysis of problems of financial institutions within our changing environment. Consideration of competition and growth, profitability, capital, and regulation. Emphasis on commercial banking. Prerequisite: FIN 302 or 618 or 625 or permission of instructor.

FIN 417/517 International Business Finance (3)
An introduction to the macro and market environments in which multinational firms operate and the additional risks they confront in a multi-currency world. Emphasis is on the decision-making process with an international perspective. Prerequisite: FIN 301 or equivalent.

FIN 432/532 Real Property Valuation (3)
Theory and methodology relating to professional valuation of residential and income producing properties. Prerequisite: FIN 331. Offered Infrequently.

FIN 451/551 Risk Management and Insurance (3)
Risk management, including risk analysis and identification, handling techniques, contract evaluation, and current issues in property and liability areas. Prerequisite: FIN 301 and 351 or permission of instructor.

FIN 452/552 Life Insurance and Advanced Personal Financial Planning (3)
Covers the integration of life insurance within broader scope of an individual's personal financial planning activities and integration of social security benefits within personal financial planning. Use of a microcomputer and electronic spreadsheet software required. Traditional life insurance topics such as differences in policies, premium calculations, and legal relationships covered. Prerequisite: FIN 351 or permission of instructor.

FIN 461 Financial Analysis of Mergers, Buyouts, and Restructuring (3)
An examination of the valuation complexities in corporate restructuring and corporate change of control on a global basis. Topics include free cash flow estimation and forecasting, estimation of capital costs using alternative methods, adjustments for complex financial structures, debt capacity, entry and exit options, alternative mediums of exchange, purchase contingencies, acquisitions in developed and emerging economies, leveraged buyouts and asset restructuring. Pre-requisite(s): FIN 302.

FIN 463/563 Employee Benefits (3)
Provides description of pension, group life and health, individual retirement, and other benefit plans. Discusses importance of these plans to achieving business and societal goals. Cross-listed with MGT. Prerequisite: FIN 301 or permission of instructor.

FIN 475 Case Problems in Finance (3)
Advanced case analysis of short and long term financial management. Topics include working capital management, leasing, mergers and acquisitions, and international finance. Prerequisite: FIN 302.

FIN 481 Student Run Investment Fund (3)
An experiential learning opportunity that takes concepts learned earlier in the curriculum and applies them to an actual corporate setting and provides experience in managing a real-dollar portfolio based on appropriate trading and investment criteria. Prerequisite: FIN 401.

FIN 485 Integrative Concepts in Finance (3) MPC
This Capstone provides students opportunity to apply their broad base of knowledge from their Foundation courses and the Farmer Business School core in an integrative manner to the field of finance. Provides students ability to see financial decisions in the broader context of society, law, government, and the global environment at large. Students come from different academic backgrounds and form teams to analyze case problems and readings from these different perspectives. These teams are required to present and defend their recommendation keeping in mind the variegated interests of the firm's stakeholders: customers, stockholders, creditors, employees, suppliers, etc. Prerequisite: senior standing and School of Business core or permission of instructor. This course may not be used as a finance major elective.

FIN 625 Managerial Finance (3)
Introduces MBA student to essentials of the finance functions of the organization. Emphasis on analysis of financial statements and understanding of the time value of money. Only available to full-time MBA students.

FIN 628 Capital Acquisition (3)
The objective of this course is to further understand business finance and investment. From the corporate perspective, both investment decisions (capital budgeting) and financing decisions (capital structure) will be covered. All topic areas will include cases that focus on real-world application.

FIN 635 Investment Management (3)
Study of the theoretical and practical tool essential to the execution of a professional money manager's job. Prerequisite(s): FIN 625.

FIN 645 Futures and Options (3)
Study of the theoretical and practical tools essential to the execution of the Chief Risk Officer's job in organizations where financial risk management plays an important role in the financial performance of the firm. Prerequisite(s): FIN 625.

FIN 655 Analysis of Business Finance and Investments (3)
Furthers understanding of the finance functions for the MBA student. Course has three interrelated themes: 1) acquisition and management of long-term sources of finance, 2) acquisition and management of short-term assets and financing, and 3) utilization of the capital markets where financial assets issued by corporations are bought and sold.

FIN 675 Applied Advanced Corporate Finance (3)
This course covers the theoretical and practical tools essential to the execution of a Corporate Financial Officers' (CFO) job. Prerequisite(s): FIN 625.

FRENCH COURSES (FRE-Arts and Science; Department of French and Italian)

Note: Students who intend to continue studying the same foreign language as in high school are required to take the placement exam for that language before enrolling. See Placement Guides in the Academic Planning chapter. Once placed, a student may not skip a course in the sequence leading to FRE 202.

FRE 101/102 Introduction to the French Language and Culture (4, 4)
Emphasis on multiple skill acquisition, speaking, and writing, and how cultural difference affects experience of the world. Prerequisite: see Placement Guides in the Academic Planning chapter.

FRE 107L Practical French (4)
Develops basic language skills to function in a French language environment. Aimed at MUDEC students who do not intend to continue French or who have already completed their university language requirement. Students who intend to continue French must take placement test to determine level of next class.

FRE 131 Masterpieces of French Culture in Translation (3) MPF
Accessible introduction to French culture through the study of selected examples of significant works in literature and the arts (understood in a broad sense). Works are examined in their social, historical, and ideological contexts and cover the period from the Middle Ages to the mid-20th century. All readings in English translation. IIB, Cul, H. CAS-B-LIT.

FRE 141 Paris in Black, White and Color (3)
Paris is a fabulously mythical city, whose many dimensions are explored in this course, from 1789 up to the present. Topics include Parisian revolts (from the French Revolution to the counter-culture of the 1960s), American expatriates in France, the city's changing physical landscape, jazz- and blues-playing in Paris, Paris as the city of love, light and culture, and the colonial roots of today's ethnic diversity in Paris. A central focus is on how and why myths about Paris are created and perpetuated. Taught in English.

Advanced French Courses

FRE 201 Intermediate French (3)
Integrates intermediate-level language-skill development and study of cultural difference. Provides student to student interaction and addresses a broad range of cultural issues.

FRE 202 Critical Analysis of French Culture (3) MPF
Second-semester, intermediate French course addresses literary and cultural issues through the study of short stories, poetry, film, journalism, and advertising. Works represent several French-speaking countries. Because texts, discussion, and compositions are in French, students continue to develop speaking, listening, reading, and writing skills. IIB, Cul. CAS-A.

FRE 212 Secular Jewish Culture From the Enlightenment to Zionism (3)
Surveys key aspects of secular Jewish culture, identity, thought, society & politics from mid 17th to mid 20th century. Significant treatment of Jewish life in Western Europe (France & Germany) and Eastern Europe; shorter treatment of Jewish experience in US & Mandate Palestine. Readings in English. Cross-listed with GER/RUS 212 and HST 211. CAS-B-Other Humanities.

FRE 255 Visual Representations of the Holocaust (3)
Studying the Holocaust is a profound responsibility yet also presents a tangle of critical and philosophical questions. The role of visual representations in the process of Holocaust memorialization has been particularly contested. In this course, we will approach the question of the visualization of the Holocaust through various media: photography, cinema, TV, graphic novel, painting, and architecture. Visual technologies afford an unparalleled means of sustaining memory but are also susceptible to voyeurism and commodification. We will explore the potentialities and limitations of these media and grapple with critical ethical, epistemological and esthetic questions they raise. Course readings and class discussions in English. Cross-listed with FST/GER.

FRE 265 European Jewish Cinema (3)
Survey of European films by Jewish filmmakers or films dealing with Jewish themes, from 1920s to the present. Films with English subtitles. Readings and discussions in English. Cross-listed with GER/FST 265.
Note: Prerequisite to courses taught in French at 300 level is FRE 202, equivalent with permission of instructor, or four years of high school French. (See Placement Guides in this Bulletin.)

FRE 301 Culture and Interpretation (3)
Gateway to upper-level offerings in French. Organized around a theme developed by each professor (for example: modernity, desire, revolution, or voyages), this class initiates students into the work of original analysis and creative interpretation. The course will include works from a variety of media, voices, and historical moments, from films to comics, speeches to sonnets, Paris to Algiers, Versailles to the street. Students will explore the relationships between literature and culture while gaining exposure to a range of approaches to, and theories of, reading. Students will hone their ability to present their ideas in writing. Prerequisite: FRE 202. CAS-B-LIT.

FRE 302 Pre-Revolutionary Literature and Life (3)
What is the relation between literature and life? How does life shape literature, and how does literature shape life? From to the rowdy streets of Medieval Paris to the court of Versailles, from troubador love songs to the first modern novels, tThis introduction to French culture from the Middle Ages to the Revolution, explores literature as a live, engaged activity that provides a place to order, conceive, reimagine, and explore human and social experience. Course topics will change regularly, and can include issues such as ethics, space, bodies, medical discourses, legal discourses, trauma and witness, or insoluble problems. Alternatively, they may be organized around questions such as what is a subject? How are subjects related to

collectivities? Systematic development of writing and speaking skills. Prerequisite: FRE 301. CAS-B-LIT

FRE 303 Modern and Contemporary Literature and Life (3)
From the Revolution of 1789 to the current day, France has weathered an astonishing array of governments (five republics, two empires, monarchies, Vichy); expanded colonial projects and decolonized; and hotly debated issues such as public education, the role of women and minorities in society, and the tensions between universalism and individual human rights. This introduction to French and Francophone culture from the Revolution to the current moment explores literature as a live, engaged activity that provides a place to order, conceive, reimagine, and explore human and social experience. Course topics will change regularly, and can include issues such as colonialism, ethics, space, bodies, medical discourses, legal discourses, trauma and witness or insoluble problems. Alternatively, they may be organized around questions such as what is a subject? How are subjects related to collectivities? Systematic development of writing and speaking skills. Prerequisite: FRE 301. CAS-B-LIT

FRE 307L/308L Practical French (3, 3)
Taught at European Center to meet practical needs in reading, writing, and speaking for advanced students.

FRE 310 Texts in Context (3) MPT
Examines ways creative texts (significant literary, historical, graphic, or architectural systems) are linked to various cultural contexts. Explores the ways in which cultural productions are interconnected to specific historical contexts in which they are created. Focuses on interrelations between cultural productions and their historical, sociological, scientific, or philosophical ramifications. Explains how French cultural discourse has regulated meaning of French texts and how these texts have changed institutions of cultural discourse. Systematic development of writing and speaking skills. Prerequisite: FRE 301.

FRE 315L/316L Supervised Training for Apprentice Teachers (2, 2)
Taught at European Center. Supervised training to prepare students linguistically and methodologically to lead practice sessions of beginning and intermediate language students. Credit/no-credit registration only.

FRE 334 Colonies and Migrants in French-Language Comics (3)
Surveys French-language comics related to colonialism and immigration. Uses a cultural studies approach. Prerequisite: FRE 301.

FRE 339 Jews in Modern France: Between Image and Experience (3)
The experience of Jews in modern France, and the figuration of ¿Jews¿ in the French cultural imaginary, have been complex and equivocal. In 1791, revolutionary France became the first European country to extend the right of citizenship to Jews. Yet France has also known deep currents of antisemitism. This ambivalence survives into the contemporary moment. In post-war French discourse, Jews have frequently been championed as the bearers of a deterritorialized, decentered, identity-less identity par excellence and, more recently, have been the targets of violence and vilified in ways that both break with and recall traditional antisemitism. In this course, we will explore the experience and the representation of Jews in French society and culture from before the French Revolution of 1789 to the present day in historical documents, novels, political cartoons, philosophical essays, historical scholarship, and films. Course readings and class discussions in English. Cross-listed with HST.

FRE 341 Conversation and Current Events in France (3) MPT
Focuses on the development of speaking, writing, and presentation skills based on current social and political events in France. Viewing and discussions of SCOLA (International News Programming by Satellite) programming are an integral part of the course.

FRE 341W Conversation and Current Events in France (3) MPT
Offered only in the Summer Program in Dijon, France. Focuses on the development of speaking, writing, and presentation skills based on current social and political events in France. Viewing and discussions of SCOLA (International News Programming by Satellite) programming are an integral part of the course.

FRE 350 Topics in French Literature in Translation (3) MPT
Discussion of selected works that suggest particular thematic problems. For non-specialist with little or no background in French literary history. CAS-B-LIT.

FRE 356 Contemporary Jewish Fiction in Europe (3)
Fiction and autobiography from the 1970s to the present by Jewish authors of diverse European backgrounds. Emphasis on national identity and changing relationships to the Holocaust. Readings and discussions in English. Cross-listed with ENG/GER 356.

FRE 361 French Pronunciation (3)
Theoretical and practical study of French pronunciation. Corrective exercises, laboratory work.

FRE 366 French Cinema in Translation (3) MPT
Critical survey of major directors, genres, and movements in French cinema. Particular attention devoted to development of film theory and criticism in France and their relation to film production. Screening of films by Renoir, Bresson, Buñuel, Godard, Truffaut, Varda, Resnais, Tavernier, and others. Taught in English; reading in English translation. Cross-listed with FST 366. CAS-B-LIT.
Note: Prerequisite for the following courses is two courses from FRE 301, 302, 303, 310, or equivalent with permission of instructor.

FRE 404/504 The French Renaissance (3)
Study of major writers of prose and poetry in the French Renaissance, including Rabelais, Montaigne, Labé, Ronsard, and DuBellay. Offered infrequently.

FRE 410 Senior Seminar (3) MPC
Required of all French majors in their senior year and open to qualified non-majors, this is a seminar on a selected topic in French literature designed to allow students to reflect upon what they have learned in previous French courses in order to further strengthen their powers of critical thinking and synthesis. Prerequisite: senior standing; also, for majors: three 300-level courses and four 400-level courses (or four 300-level courses and three 400-level courses); for non-majors: three 300-level courses, three 400-level courses, and permission of instructor. Co-requisite for majors: FRE 415.

FRE 411/511 French Civilization (3) MPT
Historical evolution of French society, its art, architecture, institutions and philosophical outlook. Prerequisite: permission of instructor.

FRE 411D/511D Tutorial in French Civilization (6-9)
Offered only in Summer French Program in Dijon, France. Directed study of a selected topic concerning French culture with an emphasis on contemporary issues as they affect the Burgundy region. For students who have previously successfully completed FRE 411W/511W.

FRE 411W/511W French Civilization (3) MPT
Offered only in the Summer French Program in Dijon, France. Historical survey of various aspects of French culture with special emphasis on local Burgundian civilization. Prerequisite: FRE 202 or equivalent.

FRE 415 Advanced Composition (3)
Required of all French majors in their senior year, this course, which provides instruction in advanced French composition, is designed to complement FRE 410. Take concurrently with FRE 410.

FRE 416/516 Colonialism, Comics and Caricature in Algeria (3)
Studies relationships between popular visual-textual iconography, especially cartoons and comics, and French colonialism in Algeria. Uses a socio-historical approach to analyze material from 1830 to the present. Compares material by artists from France, Algeria, and other countries. Prerequisite(s): nine hours of 300-level French courses successfully completed to take course at undergraduate level (FRE 416), or approval of instructor. Graduate standing and approval of instructor to take course at graduate level (FRE 516).

FRE 423/523 Classical French Theatre of the 17th and 18th Centuries (3)
Analysis of major trends in comedy and tragedy in the French theatre of 17th and 18th centuries. Offered infrequently.

FRE 430/530 Topics in Early Modern French Literature (1-3; maximum 6)
Thematic explorations of early modern French literature of all genres. Focus on critical and research methods and writing. Prerequisite: FRE 301. CAS-B-LIT.

FRE 431/531 Studies in Contemporary French Thought in Translation (3) MPT
Examination of major recent currents of French thought, such as existentialism, structuralism, and poststructuralism, with emphasis on their relation to the study of literary texts. Course content will vary. Prerequisite: junior or senior standing or permission of instructor. In English. CAS-B-LIT. Offered infrequently.

FRE 442/542 French Novel and 'Conte' of the 17th and 18th Centuries (3)
Readings in the prose fiction of Madame de LaFayette, Prévost, Marivaux, Rousseau, Diderot, and Laclos. CAS-B-LIT. Offered infrequently.

FRE 443/543 French Literature and Society (3)
Introduction to the literature and society of Medieval France. Study of literary texts and works of art, and hands-on experience with medieval manuscripts and materials used to make them. Conducted in French.

FRE 444/544 Seminar in Medieval French Studies (3)
Focuses on current criticism in the area of medieval French studies. Topics vary. Readings in French and English. Old French readings accompanied by modern French translations. Conducted in French.

FRE 451/551 19th-Century Prose Fiction to 1850 (3)
Novels of Stendhal, Balzac, and Hugo; short narratives of Nodier, Gautier, and Mérimée. Offered infrequently.

FRE 452/552 The Romantic Movement in French Literature (3) MPT
The development of romanticism in poetry and drama of France in the first half of the 19th century. CAS-B-LIT. Offered infrequently.

FRE 453/553 French Poetry from Baudelaire to Valéry (3)
Aspects of modernism in the works of five major poets of 19th century and early 20th century: Baudelaire, Rimbaud, Verlaine, Mallarmé, Valéry. CAS-B-LIT. Offered infrequently.

FRE 454/554 The French Realist and Naturalist Novel: Flaubert to Zola (3)
Study of theme and literary form in major French realist and naturalist writers of the second half of the 19th century. CAS-B-LIT. Offered infrequently.

FRE 460/560 Topics in French Cinema (3) MPT
In-depth and concentrated study of French cinema. Focus on specific topics such as film's relation to society, its relation to the other arts and artistic movements, and its productive role as an object of philosophical thought. Topics may also include the work of particular directors, historical periods, and comparative social and aesthetic studies. Taught in English translation. Cross-listed with FST.

FRE 462/562 The 20th-Century Novel: Contemporary Explorations Beyond Existentialism (3)
Study of the novel's most recent attempts to redefine itself. Texts include works by Céline, Leiris, Beckett, Robbe-Grillet, Queneau, Sarraute. CAS-B-LIT. Offered infrequently.

FRE 480 Independent Reading for Departmental Honors (3)

FRE 600 Seminar in French Literature (1-4)
Intensive study of selected authors and critical perspectives. Recent offerings included:
600A Literature and Loss
600B Sociology of Culture
600F Early Modern Subjects

FRE 614 Introduction to French Literary Theory (3)
Required of all French graduate students. An Introduction to major movements and figures in French literary theory of the twentieth- and twenty-first centuries and to the practices of literary criticism.

FRE 617/618 Intensive Course for Graduate Students (3, 3)
A two-part course sequence that provides reading knowledge of French for graduate students in other disciplines. No speaking component in the courses. Vocabulary building-through reading, with emphasis on French grammar for recognition purposes. Readings of increasing difficulty with emphasis on idiomatic usage in student's disciplines.

FRE 680 Independent Study (1-6)
Independent work in French literature or language.

FRE 689 Teaching Assistant Orientation Seminar (1)
Required of new graduate assistants. Directly coordinated with organization of the beginning French course and deals with practical problems involved in this method of language instruction.

FRE 700 Research for Master's Thesis (1-10; usually 6)

GEOGRAPHY COURSES (GEO-Arts and Science)

GEO 101 Global Forces, Local Diversity (3) MPF, MPT
Application of human geography concepts to patterns and processes of economic, political, and cultural changes at global, regional and local scales. IIC, Cul.

GEO 111 World Regional Geography: Patterns and Issues (3) MPF
Introduction to world geography emphasizing regional approach and comparisons; combines analysis and synthesis of characteristics distinctive to each principal culture realm; focuses upon selected topical issues involving ethnic, political, economic, social, and environmental aspects. IIC, Cul.

GEO 121 Earth's Physical Environment (4) MPF, MPT
Study of the earth's physical environment, using systems approach to understand energy and material cycles, global circulation, and temporal dynamics. Focus on influence of physical processes on spatial patterns and on interrelationships of the atmosphere, soils, vegetation, and landforms. 3 Lec. 1 Lab. IVB, LAB. CAS-D/LAB.

GEO 133 Imagining Russia (2)
Survey of Russian history, society, politics, economy, literature, film and arts from a variety of intellectual perspectives. Classroom lectures plus out of class cultural presentations. Cross-listed with POL/RUS/ATH/HST 133.

GEO 175 First Year Seminar in Environmental Science (1)
Introduces students to the multidisciplinary nature of environmental science and the solution of environmental problems. Cross-listed with BOT, CHM, ENV, GLG, MBI, MTH, STA, and ZOO

GEO 179 Introduction to Jewish Studies (1)
Introduction to Jewish studies as a subject of academic study, basic concepts in Jewish studies and multidisciplinary approaches to Jewish studies. Cross-listed with ART, ENG, GER, HBW, HST, POL, PSY, REL.

Advanced Geography Courses

Note: Advanced courses in geography are open to students who have had six semester hours of geography, or six of anthropology, economics, political science, history, sociology, or geology or are of junior or senior standing

GEO 201 Geography of Urban Diversity (3) MPF, MPT
Location of economic activities and social groups among and within U.S. urban areas. Geographic perspectives on underlying processes and resulting problems resulting from changing distributions. IIC, Cul.

GEO 207 Civilization of the Middle East (3) MPF
Survey of cultural, political, economic, and social developments in the Middle East, viewed in geographical and historical perspective, with attention to images of the area prevalent in our society. Cross-listed with ATH and REL 207. IIC, Cul, H.

GEO 208 The Rise of Industrialism in East Asia (3) MPF
Introduction to historic parameters, geographic variables, state policies, and sociocultural contexts of industrialism in East Asia (China, Japan, Korea, Taiwan, Hong Kong, and Singapore). Cross-listed with HST, ITS, SOC, and POL 208. IIC, Cul, H.

GEO 209 Civilizations of Africa (3) MPF
Survey of cultural, political, economic, and social developments in sub-Saharan Africa, viewed in geographical and historical perspective with attention to images of the area prevalent in our society. Cross-listed with ATH, BWS, HST, and REL 209. IIC, Cul, H.

GEO 211 Global Change (3) MPT
Application of physical and human geography concepts to understanding processes of change in the use and allocation of resources from combined environmental and social perspectives.

GEO 219 Geography of the United States and Canada (3)
Topical and regional analysis of cultural and physical spatial patterns and problems in the United States and Canada.

GEO 221 Regional Physical Environments (3) MPT
Brief, intensive review of patterns in the earth's physical environment followed by a comparative analysis of selected, distinctly different regions. Geographic techniques for data collection and analysis demonstrated and employed in the

examination of these environments. Prerequisite: GEO 121 or permission of instructor.

GEO 241 Map Interpretation (3)
Introduces a variety of maps that there are in the world, including their symbolization and component parts. Illustrates map uses, and provides opportunity for the student to analyze and apply the map information.

GEO 271 Human Dimensions of Natural Resource Conservation (3) MPT
Ecological, socioeconomic, and policy perspectives on the use and management of natural resources.

GEO 275 Principles of Environmental Science (3)
Topics include contamination of earth systems and pollution mitigation; use, abuse, and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. Emphasis is on the multidisciplinary nature of environmental problems and their solutions. Prerequisites: at least one course from each of the following three categories is either pre- or co-requisite: 1) BOT/MBI/ ZOO 115 or BOT 191 or ZOO 113; 2) CHM 111 or CHM 142/5; and 3) GLG 111 or 121 or 141 or GEO 121. Cross-listed with BOT, CHM, GLG, MBI, MTH, STA, and ZOO.

GEO 301 Geography of Sub-Saharan Africa (4) MPT
Analysis of physical and cultural features of that area south of the Sahara Desert. Cross-listed with BWS 301.

GEO 304 Latin American Development (4) MPT
Analysis of the regional character of South America, Middle America, and the Caribbean with particular reference to environmental, population, urban, and developmental problems.

GEO 306 Peoples & Cultures of Russia (3)
Description and analysis of the cultures of Russia and Eurasia with a focus on non-Russian peoples and contemporary survival.

GEO 307 Geography of Central and Eastern Europe, and Russia (3))
This course introduces Central and Eastern European (CEE) countries, and Russia as a region of dramatic political, economic and cultural change resulting from transition from centrally-planned to market economy and European integration.

GEO 308 Geography of East Asia (3) MPT
Analysis of cultural and physical landscapes of China, Japan, and Korea.

GEO 309 Native American Women (3)
A survey of writings and film by and about Native American women. The objective of the course is to provide students with a broad overview of Native American perspectives on a variety of topics including indigenous viewpoints on research methods, environmental activism, politics and policy, and critical analysis. Cross-listed with WMS.

GEO 311 Geography of Europe (4)
Regional analysis of Europe with emphasis on cultural, political, and economic patterns and problems.

GEO 333 Geography of Natural Hazards (3) MPT
Exploration of the underlying causes, potential impacts, and mitigation measures of natural hazards including wildfire, severe weather events, and geologic hazards. Particular attention is paid to impacts on humans. Prerequisite: GEO 121.

GEO 340 Internship (1-20)
Supervised work experience in federal, state, and local government agencies, public service, and appropriate commercial or industrial organizations. Prerequisite: junior and senior geography and urban and regional planning majors only; permission of instructor and department chair required. Credit/no-credit only.

GEO 354 Geomorphology (4)
Evolution of landscapes and landforms on Earth and other planets and the processes responsible for their formation. Analysis of landfoms to assess the relative role of climate, tectonics, and humans in their formation. Cross-listed with GLG. Prerequisite(s): GLG 111, GLG 121 or GEO 121.

GEO 378 Political Geography (3)
Analysis of geographic factors significant in understanding international relations and internal politico-territorial organizations; detailed studies of specific problem areas.

GEO 395 Scholarship & Practice in Geography (1)
A collaborative seminar in which students investigate how geographers can and do contribute as professionals and relate these opportunities to their own academic interests and skills in the discipline. Prerequisite: Junior standing.
Note: The following courses require 12 semester hours in geography or a combination of geography, geology, and social science (economics, political science, history, or sociology), of which six must be advanced.

GEO 401/501 Sustainable Regions (3)
Applies concepts such as ecological, economic, and social sustainability, the land ethic, ecological footprint, native ecosystems, urban sprawl, and local food systems to the landscapes around us. Analyzes the sustainability of human activities in relation to geographical scale from local to global.

GEO 405/505 The Caribbean in Global Context (3) MPT
Investigation of the geography of development in the Caribbean Basin, defined as Caribbean Islands, Guyanas, and Caribbean coast of Central America. Emphasis on development prospects and obstacles associated with agricultural and industrial exports, tourism, state policies, and the U.S. role in the region.

GEO 406/506 Indigenous Peoples and Their Sacred Lands (3)
An in depth look at topics related to policy and land management practices that impact indigenous peoples nationally, as well as internationally. The major focus of the various case studies is on designated sacred lands of Native American tribes within the United States. The course provides students with interdisciplinary training about indigenous cultures and human rights. Cross-listed with WMS.

GEO 408/508 Geography of the Silk Road (The Heart of Asia) (3)
Examines the geography of the Inner Asia region including Uzbekistan, Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, Afghanistan, Pakistan, Mongolia, and Inner Asian China (Xinjiang).

GEO 410/510 Advanced Regional Geography (1-4; maximum 12)
Specific area to be announced each time course is offered. Offered infrequently.

GEO 412/512 Tropical Ecosystems of Costa Rica (5)
Introduces students to the structure and function of neotropical ecosystems, as well as to geological, biological, cultural, and economic forces affecting biodiversity in the tropics. This course is taught on-site in Costa Rica. There are additional costs beyond tuition. Cross-listed with GLG/IES/LAS 412/512.

GEO 413/513 Tropical Marine Ecology (5)
Investigates aquatic systems (estuaries, mangroves, coral reefs, seagrass beds, lagoons, beaches, intertidal zones, taxonomy of vertebrates and invertebrates of coral reefs, lagoons and tidal flats) paleobiology and global climate change (paleo-reconstruction of past lagoon environments, fossil coral reefs, and land use). Student research questions concerning biological and physical analyses of a select marine habitat are required. The course is taught on-site in the Florida Keys and the Bahamas. There are additional costs beyond tuition. Cross-listed with GLG/LAS 413/513 and IES 423/523.

GEO 416/516 Connections: Understanding Tropical Ecology and Natural History via Belize, Central America (5)
Intensive summer workshop exploring tropical ecology (terrestrial and marine) and human natural history in Belize, Central America. Emphasis is placed on habitat types and cultural use of different habitats. Environmental issues raised include the coexistence of human populations, agriculture, and natural habitats with normal diversity of native species. Cross-listed with IES/LAS. Prerequisite(s): a college course in biology, environment concepts, or related topics.

GEO 421/521 Climatology (3) MPT
Study of the earth's climate and atmospheric processes involving energy, moisture, and motion, which give rise to climatic regions. Prerequisite: GEO 121 or permission of instructor.

GEO 425/525 Hydrogeography (3) MPT
Investigation of the hydrologic cycle focusing on the surficial component parts of precipitation, infiltration, soil moisture, evaporation, transpiration, and surface runoff, and variation of these from place to place over the earth's surface. Prerequisite: GEO 121 or permission of instructor.

GEO 426/526 Watershed Management (3) MPT
Impacts of urban and agricultural land use on water resources; common watershed-scale tools for water quality and quantity management. Prerequisite: GEO 121.

GEO 428/528 Soil Geography (4) MPT
Study of soil morphology, formation, classification, and geographical distribution of soils. Fieldwork and laboratory work

required. Prerequisite: GEO 121 or GLG 111 or 121 or permission of instructor. Offered infrequently.

GEO 431/531 Global Plant Diversity (3) MPT
Research-focused seminar on floristic, ecological, and cultural influences on global patterns of plant diversity, especially in tropical regions. Comparative topics include the role of disturbances and global environmental change. Prerequisite: BOT/MBI/ZOO 115, BOT 191, or higher, GEO 121 or higher, or permission of instructor. Cross-listed with BOT. CAS-D.

GEO 432/532 Ecoregions of North America (3) MPT
Ecological study of vegetation that applies an understanding of climate, soils, and physiography across the continent toward interpreting major vegetation types and local patterns of diversity. Discussions and fieldwork focus on current research and conservation issues. Required field trip. Prerequisite: BOT/MBI/ZOO 115, BOT 191, or higher, GEO 121 or higher; or permission of instructor. Cross-listed with BOT.

GEO 436/536 Women, Gender, and the Environment (3) MPT
Seminar discussing literature on the role of women in their relationships with natural resources as advocates, practitioners, and scholars. Ideas on ecofeminism will be introduced from more-developed "north" and developing "south" perspectives, and then directed toward the study of gender and development, and participatory tools in gender analysis.

GEO 437/537 Regional Land Use Capability Analysis (3)
Study of the effects of soils, vegetation, climate, water resources, and geomorphology on the use of land by human beings; resource data inventories for use in planning; and critical review of capability analysis in planning projects at local, state, and national levels. Summer only.

GEO 441/541 Geographic Information Systems (3)
Introduction to the conceptual, operational and institutional issues associated with the use of current Geographic Information Systems technology. Demonstrates the application of widely available commercial GIS products to geographic problem-solving.

GEO 442/542 Advanced Geographic Information Systems (3)
Advanced-level application of GIS technology to geographic problem-solving. Follows on from topics introduced in GEO 441/541 to provide (a) in-depth understanding of the technical and substantive issues associated with the use of GIS and (b) advanced-level training in the functionality of major GIS products. Prerequisite: GEO 441/541 or permission of instructor.

GEO 444/544 GIScience Techniques in Landscape Ecology (3)
Using geographic tools such as geographic information systems (GIS), remote sensing, global positioning system (GPS) receivers, and computer-based analysis, students will study a range of current topics in landscape ecology.

GEO 447/547 Aerial Photo Interpretation (4)
Interpretation and analysis of aerial photographic images for the purpose of identifying objects and characterizing their significance. Examples will be drawn from both human and physical environment.

GEO 448/548 Techniques and Applications of Remote Sensing (3)
Description of non-photographic remote sensing such as radar, thermal infrared, and multispectral scanning. Experience with machine-based interpretation of multispectral imagery.

GEO 451/551 Urban and Regional Planning (3) MPT
Introduction to the purposes and possibilities of urban and regional land use planning. Topics include historical development of planning, theoretical rationale for planning, and major analytical and legal tools and techniques available to planners at urban and regional levels.

GEO 454/554 Urban Geography (3) MPT
Geographic principles related to the distribution, function, structure, and regional settings of urban centers. Prerequisite: some other urban course in social sciences or permission of instructor.

GEO 455/555 Race, Urban Change, and Conflict in America (3) MPT
Since the 1960s, changes at both global and local levels have affected the American city. Traditional study of the city has not focused on race and the effect of such changes on race. Conflicts with racial undertones occur on a daily basis in most American cities. More often these are conflicts over production, distribution, and consumption of public and private goods and are manifest in the housing market, job market, and access to education and social services amongst others. This seminar focuses on race in urban America within the context of conflict and change. Cross-listed with BWS.

GEO 457/557 Global Cities, World Economy (3)
Examines the strategic role of global cities within the world economy; processes of globalization and economic restructuring; social, political, and cultural challenges for global cities. Prerequisites: GEO 201, 451, 454, or 459 or permission of instructor.

GEO 458/558 Cities of Difference (3)
Feminist geographic perspectives on urban theory and on the construction, use, and transformation of urban space. Prerequisite: GEO 201 or permission of instructor. Cross-listed with ARC.

GEO 459/559 Advanced Urban and Regional Planning (3) MPT
Application of planning tools and techniques to significant urban and regional land use problems. Evaluation of major planning tools for redevelopment of central cities and declining regions in the U.S. Innovative techniques for solving American urban spatial problems at local to national levels. Prerequisite: GEO 451/551 or permission of instructor.

GEO 460/560 Advanced Systematic Geography (1-4; maximum 12)
Specific topical field announced each time course is offered.

GEO 461/561 Migrants & Diasporas (3)
Examines the lives of contemporary migrants, paying attention to identity, home, belonging, and the acceleration of international migration through globalization. Service-learning weekend trip required.

GEO 462/562 Public Space (3)
A seminar that examines issues relating to public space. This includes both a conceptual and historical introduction to the topic, as well as more in-depth analysis of different aspects relating to politics, cultural diversity and exclusion, and design. Prerequisite: Senior standing or permission of instructor.

GEO 467/567 Land Use, Law and the State: Geographic Perspectives (3)
Explores the legal basis for urban and regional planning in the United States through analysis of relevant case law, statues, and secondary texts. The course offers both practical knowledge of land use law and deeper understanding of its wider geographic context and significance.

GEO 473/573 Development and Underdevelopment (3) MPT
Survey of developmental problems, policies, and prospects in the Third World emphasizing the interface between politics and economics. Representative concepts and issues are alternative theories of Third World development, New International Division of Labor, intra-national geography of development, women in development, and capitalist vs. state socialist development policies in the Third World. Case studies are drawn from Latin America, Asia, and Africa.

GEO 475/575 Global Periphery's Urbanization (3) MPT
Countries of the Third World have experienced an unprecedented rate of urban growth and expansion since the middle of this century. As Third World countries continue to industrialize, urbanization and related problems will increasingly become important and will continue to be on the agendas of national governments, international agencies, planners, and academics well into the next century. Explores Third World (Africa, Asia, and Latin America) urbanization literature from an interdisciplinary perspective.

GEO 476/576 Global Poverty (3)
Increasing attention has been placed on poverty around the globe by academics, practitioners and activists. With increasing globalization, global poverty has become entrenched. This course examines what poverty is, how it is measured, what causes poverty and how poverty can be alleviated in the global periphery and semi-periphery.

GEO 480 Departmental Honors (1-6; maximum 6)
Departmental honors may be taken for a minimum of four semester hours and a maximum total of six semester hours in one or more semesters of student's senior year.

GEO 491 Senior Seminar (4) MPC
Requires the selection and development of a geographic research problem/topic and the submission of a final research paper. Student expected to build upon research, writing, and oral presentation skills developed as an undergraduate, provide peers with constructive criticism, and share on a continuing basis both research experience and development of the topic. Each student must select and work with at least one faculty adviser, not necessarily from the geography department, with appropriate expertise. Required for

geography majors. Prerequisite: senior standing. Offered Fall semester only.

GEO 492 Geography of the Auto Industry (3) MPC
Applies geographic principles to understanding the production and distribution of motor vehicles. Origin and growth of motor vehicle production in the United States, diffusion of Japanese production methods, global interdependence of automotive production, spatial implications of changing customer preference for different products, and impact of demand for quality and satisfaction. Prerequisite: senior standing.

GEO 493 Urban Field Experience (3) MPC
Development of modern urban design and planning principles, emphasizing the central role of Chicago as a laboratory for the processes. Study of Chicago as an illustrative case study for understanding contemporary issues in urban design and planning. Importance of direct field observation methods in the study of urban design and planning patterns. Requires two long-weekend field trips to Chicago and fieldwork in Chicago.

GEO 494 Sustainability Perspectives in Resources and Business (3) MPC
Addresses the need for interdisciplinary understanding of the pattern of declining quantities of critical resources and growing public awareness of environmental degradation, an understanding of relevant ecosystems, social and economic institutions and policy, and the prospects for the business community to facilitate resolution of these concerns. Three alternative prerequisites: (A) senior standing as a business major and one of BOT 131 or GLG 121 or ZOO 121; or (B) senior standing as a science major and ECO 201 and 202; or (C) senior standing and completion of Thematic Sequence ECO 5 Sustainable Systems. Cross-listed with BUS, BOT, GLG, and ZOO 494.

GEO 496/596 Biodiversity of Kenya (6) MPC
Intensive field-workshop on: 1) the ecology of tropical ecosystems in Kenya; 2) indigenous human relationships with Kenyan environments; and 3) conservation issues from interdisciplinary perspectives. Includes pre-trip seminars that introduce basic concepts in Kenya's ecology, a two-week intensive field experience in Kenya, and follow-up discussions and project presentations. CAS-D. Prerequisite: permission of the instructor. Cross-listed with BOT.

GEO 601 Seminar in Research Techniques (3)
Survey of basic tools of graduate research in geography, including bibliographic resources, published data sources, and introduction to computer methods in geography.

GEO 602 Geographic Thought (4)
Selected reading from Strabo to present. Emphasis is on 20th century geographic thought.

GEO 604 Research Project Development (1)
Research hypotheses in geography; organizing and defining a research project; proposal development.

GEO 605 Teaching Skills in Geography (1)
Strategies for teaching contemporary geographic concepts in discussion and laboratory components of introductory geography courses. Required of all new graduate teaching assistants. Credit/No credit. Credit does not count toward graduate degree. Summer only. Prerequisite: admission to geography graduate program.

GEO 610 Research in Geography (1-4; maximum 12)
Advanced work on selected topics undertaken by individual students. May be taken for no more than four semesters.

GEO 620 Geography Seminar (1-4; maximum 12)
Advanced research in selected specialty areas. Subject announced each time course is offered.

GEO 680 Research Paper (1-4; maximum 4)
Writing a research paper of a quality for publication. Offered infrequently.

GEO 690 Internship in Geography (1-12)
Supervised application of principles and methodologies in an apprentice/intern relationship in a public or private agency.

GEO 700 Research for Master's Thesis (1-12; minimum 3, maximum 12)

GEO 710 Special Problems in Geography (1-4; maximum 12)

GEOLOGY COURSES (GLG-Arts and Science)

GLG 111 The Dynamic Earth (3) MPF, MPT
Earth as a geophysical-geochemical unit and its internal and external processes. Formation of minerals and their relationships in rocks. Earth stresses and rock deformation, mountain building, and earthquakes. Geomorphic (landscape) evolution by mass wasting and wave, stream, wind, ground water, glacial, and volcanic activity. IVB, H.

GLG 115L Understanding the Earth (1) MPF
Laboratory course exploring Earth from multiple perspectives. Earth in the solar system; Earth in time; the solid Earth; Earth's surface in flux; Earth's atmosphere and hydrosphere. Prerequisite or co-requisite: Any 100-level, 3 credit hour GLG course (students enrolled in these courses are not required to take the lab). IVB, LAB. CAS-D/LAB.

GLG 121 Environmental Geology (3) MPF, MPT
A survey of introductory geology with a sub theme of human interaction with the geologic environment. Topics include flooding, earthquakes, volcanoes, water quality and availability, energy, use and abuse of natural resources and land-use planning. IVB.

GLG 141 Geology of U.S. National Parks (3) MPF, MPT
A survey of introductory geology with a sub theme of the structure and geologic evolution of North America as exemplified by the geologic features and development of U.S. national parks and other public lands. IVB.

GLG 175 Environmental Science Seminar (1)
Introduces the interdisciplinary nature of environmental science and the solution of environmental processes. Cross-listed with BOT, CHM, GEO, MBI, MTH, STA, and ZOO 175.

Advanced Geology Courses

GLG 201 Mineralogy (4)
Composition, physical properties, symmetry, crystal structure, and geologic occurrence of rock-forming minerals. Co-requisite: CHM 137 or 141, 144. 3 Lec. 1 Lab.

GLG 204 Survival on an Evolving Planet (3)
Paleontology is the scientific study of past life, and is therefore an interface between geology and biology. It includes such topics as the origin of life, mass extinctions, exceptional fossil preservation, and response of past ecosystems to climate change, to name a few. This course provides an overview of the history of life and an introduction to the primary research areas in paleontology. Prerequisite(s): Any 100-Level GLG, BOT, or ZOO course.

GLG 205 Evolution and Earth Systems (3)
Examines the evolution of organisms and the links between this evolution and the evolution of Earth's climate and surficial chemistry. Earth is examined as a part of the universe and organisms are examined as a part of the Earth. Prerequisite: Any natural science course.

GLG 211 Chemistry of Earth Systems (3)
Material presented serves as the basis for dynamic links with upper-division courses within the department. The chemical evolution of the Earth is presented spanning all pressure and temperature conditions. Major geological processes are discussed with respect to the chemical principles controlling the distribution of elements and mass, e.g., crustal genesis, metamorphism, metasomatism, formation of the atmosphere and oceans, diagenesis, hydrothermal processes, and low-temperature chemical weathering. Prerequisite: Any 100-level, 3 credit hour GLG course. Co-requisite: GLG 201, CHM 137 or 141, 144.

GLG 217 Planetary Geology (3)
Geology of planets and moons in our solar system. Focuses on the compositions and geologic processes that operate today and/or have operated in the past. Prerequisite: Any 100-level, 3 credit hour GLG course.

GLG 244 Oceanography (3) MPT
Examination of the major features of the ocean and the processes active there. Oceanic currents, waves and tides, biologic productivity and zonation, nutrient cycles, chemical parameters, bathymetry, and sediments explored. Prerequisite: one natural science course from MPF IVA or B, or CAS-D.

GLG 261 Geohazards and the Solid Earth (3)
Examines solid earth physical principles including theory and application. Applications will focus on the nature of geologic hazards and the Earth's interior, which will then be related to overriding scientific theories like plate tectonics and the observations they are based on. Prerequisite: Any 100-level 3 credit hour GLG course, or GEO 121, or PHY 111, or PHY 171, or PHY 181.

GLG 275 Principles of Environmental Science (3)
Introduction to the principles and methodologies of environmental science. Topics include contamination of earth systems and pollution mitigation; use, abuse, and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. Emphasis is on the multidisciplinary nature of environmental problems and their solutions. Prerequisite/Co-requisite: At least one course from each of the following three categories: 1) BOT/MBI/ZOO 115 or BOT 191 or ZOO 113; 2) CHM 111 or CHM 142/145; and 3) GLG 111 or 121 or 141 or GEO 121. Cross-listed with BOT/CHM/GEO/MBI/ MTH/STA/ZOO 275.

GLG 301 Sedimentology and Stratigraphy (4)
Description and evaluation of sedimentary processes, sedimentary environments of deposition and the rocks that form in these environments are integrated with field trips and laboratory analyses of rocks in hand sample and thin section. Stratigraphic principles, sequence stratigraphy, and basin analysis are linked to global climate change and tectonics throughout geologic time. Prerequisite: Any 100-level, 3 credit hour GLG course and GLG 115.L or permission of instructor.

GLG 305 Tropical Ecosystems (3)
The interplay of geology, climatology, oceanography, and biology are examined in marine and terrestrial tropical ecosystems. Includes lectures, student-led discussions and a semester long research project. Exams are take-home and discussion based. Prerequisites: Two introductory level natural sciences courses (i.e. select two courses from MPF IVA or IVB).

GLG 307 Water and Society (3) MPT
Examines the nature of water, how it moves throughout the hydrologic cycle, the role it plays in the lives of people throughout the world and people's impact on water resources. Topics include flooding, human control of water systems, global water scarcity, water's role in the settlement of the western U.S., water and international conflict, water quality and regulation. Prerequisite: Any 100-level, 3 credit hour GLG course.

GLG 322 Structural Geology (4)
Origins and characteristics of primary and secondary structures of Earth's crust. Prerequisite: Any 100-level, 3 credit hour GLG course; GLG 301; MTH 151, 153, or 157. 3 Lec. 1 Lab. CAS-D/LAB.

GLG 335 Ice Age Earth (3)
Introduces the study of climate change as recorded in the geologic record. Discusses natural and anthropogenic causes for climate change. Prerequisite: GLG 111, 121, 141 or GEO 121.

GLG 354 Geomorphology (4)
Evolution of landscapes and landforms on Earth and other planets and the processes responsible for their formation. Analysis of landfoms to assess the relative role of climate, tectonics, and humans in their formation. Cross-listed with GEO. Prerequisite(s): GLG 111, GLG 121 or GEO 121.

GLG 357 Igneous/Metamorphic Petrology (4)
Theoretical, quantitative, and petrographic investigation of igneous and metamorphic rock physical and chemical characteristics and formational processes. Prerequisite: Any 100-level, 3 credit hour GLG course and GLG 201. GLG 211 is recommended.

GLG 401/501 Global Climate Change (4)
Examines physical factors controlling climate and climate changes throughout geologic time. Interactions of the oceans, atmosphere, biosphere, and lithosphere on our climate in addition to astronomic controls examined. Prerequisite: GLG 244 or permission of instructor.

GLG 402/502 Geomicrobiology (3)
Focuses on mutual interactions between microbial and geological processes. Topics include: role of microorganisms on mineral weathering rates, microbial mediated ore deposit formation, microbe enhanced oil recovery, life in extreme environments, search for bio-signatures in geological records and meteorites and implications for life on Mars, microbial ecology in ocean floor hydrothermal vents. Prerequisite: Any 100-level, 3 credit hour GLG course; CHM 141R or 141, 144; or permission of instructor. Cross-listed with MBI.

GLG 408/508 Introduction to Hydrogeology (4) MPT
Introduction to the physical properties governing groundwater-flow in various geologic media and settings. Methods are explored for determining groundwater-flow directions and velocities and aquifer characteristics and potential. Introduction to groundwater-flow modeling and principles of mass transport and groundwater contamination. Prerequisite: Any 100- level, 3 credit hour GLG course; MTH 151, 153, or 157, or permission of instructor. 3 Lec. 1 Lab.

GLG 411/511 Field Geology (6) MPC
Taught annually during June through July at Miami University Geology Field Station, Dubois, Wyoming. Students identify, classify, and interpret geologic features and synthesize and communicate geologic interpretations. Students work outdoors six to eight hours a day and individually create geologic maps using pace and compass, topographic map base, air photo, and satellite image bases with the assistance of GPS satellite navigation receivers and software. Geologic mapping and rock interpretation techniques are the subject of evening lectures. Prerequisite: GLG 211, 301, 322, and 357 or equivalents or permission of instructor. Summer only.

GLG 412/512 Tropical Ecosystems of Costa Rica (5)
Introduces students to the structure and function of neotropical ecosystems, as well as to geological, biological, cultural, and economic forces affecting biodiversity in the tropics. This course is taught on-site in Costa Rica. There are additional costs beyond tuition. Cross-listed with GEO/LAS 412/512 and IES 423/523.

LAS 413/513 Tropical Marine Ecology (5) MPT
Investigates aquatic systems (estuaries, mangroves, coral reefs, seagrass beds, lagoons, beaches, intertidal zones, taxonomy of vertebrates and invertebrates of coral reefs, lagoons and tidal flats) paleobiology and global climate change (paleo-reconstruction of past lagoon environments, fossil coral reefs, and land use). Student research questions concerning biological and physical analyses of a select marine habitat are required. The course is taught on-site in the Florida Keys and the Bahamas. There are additional costs beyond tuition. Cross-listed with GEO/LAS 413/513 and IES 423/523.

GLG 414/514 Coastal Ecology of the Bahamas (5) MPT
Characteristics, spatial and temporal distributions and physical and biologic processes of coastal environments. This field course requires snorkeling and hiking. Class, group, and individual research projects designed, executed and presented. Computers, dataloggers, and modern field instruments are used to augment personal observations. This course is taught on-site in the Bahamas. Prerequisite: Two natural science courses or permission of instructor.

GLG 415/515 Coral Reef Ecology (5)
Examines the coral reef environment including its biology, geologic setting, chemical and physical characteristics, and its relation to fossil coral reefs and global climate change. This course is taught on-site in the Bahamas. Prerequisite(s): SCUBA certification required, previous tropical field course experience or permission of instructor. Cross-listed with IES 415/515 and LAS 417/517.

GLG 416/516 Carbonate Depositional Systems (5)
Modern and ancient coral reefs, lagoons, seagrass beds, beaches, dunes, tidal flats, blue holes, paleosols, and sand shoals are examined and evaluated in the field and in discussions, lectures, and projects. This field course includes trips to rock units in the Midwest and a field trip to the Bahamas. Prerequisite: two previous geoscience courses or permission of instructor.

GLG 427/527 Isotope Geology (3)
Natural variations, measurement techniques, and geologic applications of radiogenic and stable isotopes. Prerequisites: GLG 211 and GLG 357.

GLG 428/528 Groundwater Flow Modeling (4)
Introduces techniques used in constructing and solving mathematical models of groundwater flow. Emphasis is on solution of groundwater flow problems with the use of digital computers using finite-difference techniques to approximate the groundwater-flow differential governing equations. Develops a familiarity with and applies widely-used packaged models while learning about grid and boundary design, model parameter value selection, and calibration. Prerequisite: GLG 408/508, MTH 151, 153, or 157.

GLG 432/532 Powder X-Ray Diffraction and Clay Analysis (3)
This course covers one of the most utilized analytical methods in geology and materials characterization, powder X-ray diffraction. It

is a hands-on active learning course involving theory and application of diffraction to phase identification, structural analysis and quantitative analysis of clays, soils, sediments, etc. It also covers the mineralogy and crystal chemistry of the clay minerals. Prerequisites: GLG 201 or CHM 158 and CHM 141 or permission of instructor.

GLG 435/535 Soils and Paleosols (3)
Introduces methods of soil morphology, taxonomy, and genesis of modern and fossil soils. Describes how to use fossil soils to infer past environmental conditions. Prerequisite: GLG 301 or GLG 454 or permission of instructor.

GLG 436/536 Paleoclimatology (3)
Introduces methods and techniques for reconstructing climate change on Earth over the last 500 million years, with a focus on stable isotopes..
Prerequisite: GLG 211 or approval of instructor.

GLG 450/550 Sedimentary Basin Analysis (3)
Evaluation of the physical mechanisms of sedimentary basin formation including isostasy; flexure, thinning and thermal contraction of the lithosphere; subsidence analysis; sequence straitgraphy; paleocurrents and sediment provenance; and tectonics of sedimentary basins. Prerequisite: GLG 301 and GLG 322.

GLG 461/561 Geophysics (3)
Active learning course on solid earth geophysics, covering theory and application. Techniques include seismology, GPS, gravity, magnetics, and mineral physics. Application will focus on large-scale tectonics and the Earth's interior, but will also include some exploration geophysics. Prerequisite: MTH 151, 153 or 157; PHY 171 or 181, 183.

GLG 467/567 Seismology (3)
Active learning course on seismology covering theory and application. Topics will include elastic wave propagation, reflection/refraction seismology, waveform modeling, tomography plate kinematics, and time series analysis. Applications will focus on earthquakes and large-scale tectonics. Prerequisites: MTH 151 or MTH 153; PHY 171 or PHY 181; PHY 183, PHY 172 or PHY 182, PHY 184 or consent of instructor. Cross-listed with PHY 467/567.

GLG 482/582 Contaminant Hydrogeology (4)
Introduces the theory of mass transport in groundwater and soil systems and examines sources, fate and cleanup of groundwater and soil contamination. Chemical reactions and their effects on transport will be examined for both inorganic and organic contaminants. Multiphase flow will also be investigated as will strategies for acquifer and soil remediation. Prerequisite: GLG 408/508, MTH 151, 153, or 157.

GLG 484/584 X-ray Diffractometry (2)
Principles of X-ray diffraction as applied to geological materials. Utilization of powder goniometer and single-crystal cameras and goniometer. Prerequisite: GLG 201 or permission of instructor. 2 Lec 1 Lab. Offered infrequently.

GLG 491/591 Geochemistry of Natural Waters (3)
Explores the range of geochemical reactions governing water-rock interaction. Includes discussions of thermodynamics, kinetics, acid/base reactions, mineral equilibria, absorption/desorption, oxidation-reduction, organic geochemistry, and geochemical modeling. Prerequisite: GLG 211 or permission of instructor.

GLG 492/592 Global Tectonics (4)
Fundamentals of the theory of plate tectonics and its applications to regional geology. Physical processes and kinematics of plate motions, geology and geophysics of modern and ancient plate boundaries, and plate tectonic evolution of major orogenic belts examined. Prerequisite: GLG 322, 357, or permission of instructor.

GLG 494 Sustainability Perspectives in Resources and Business (3) MPC
Addresses the need for interdisciplinary understanding of the pattern of declining quantities of critical resources and growing public awareness of environmental degradation, an understanding of relevant ecosystems, social and economic institutions and policy, and the prospects for the business community to facilitate resolution of these concerns. Three alternative prerequisites: (A) senior standing as a business major and one of BOT 131 or GLG 121 or ZOO 121; or (B) senior standing as a science major and ECO 201 and 202; or (C) senior standing and completion of Thematic Sequence ECO 5 Sustainable Systems. Cross-listed with BUS, BOT, GEO, and ZOO 494.

GLG 496/596 Isotopes in Environmental Processes (3)
Focuses on applications of isotopes to environmental processes. Topics include introduction to environmental isotopes and basics of isotope fractionation, isotopes used as tracers in the hydrological cycle to identify and quantify reaction pathways for both clean and contaminated landscapes, dating of modern and paleo-groundwaters. The emphasis is given to the role of isotopes to trace sources, reactions and pathways of various contaminants in the environment. Prerequisites: GLG 211 or permission of instructor.

GLG 617 Chemistry of Earth's Interior (3)
Geochemical evolution of the Earth. Formation and differentiation of the Earth, composition of the core, mantle and crust, mass fluxes between major Earth reservoirs. Prerequisites: GLG 527 or permission of instructor. Offered alternate years.

GLG 627 Applications of Non-Traditional Isotope Systems (3)
Application of a wide variety of recently developed non-traditional stable and radiogenic isotope systems to geochemical and cosmochemical problems. Prerequisite(s): GLG 211, GLG 357, GLG 427/527 or permission of instructor.

GLG 630 Mineral Surface Geochemistry (3)
A study of the structure, composition, and reactivity of crystalline surfaces in aqueous environments. Prerequisites: GLG 201, CHM 137 or 141 and permission of instructor.

GLG 633 Extensional Tectonics (3)
An evaluation of the geodynamic, structural, and sedimentary processes associated with extensional deformation of the Earth's crust and lithosphere. Prerequisites: Graduate standing or permission of instructor.

GLG 643 Introduction to the Advanced Study of Mineralogy and Geochemistry (4)
Introduction to mineralogy, high and low temperature geochemistry, and isotope systematics for first-year graduate students. Direct application of principles through laboratory investigations. Prerequisite: CHM 141, 142, 144, 145, and GLG 201. 3 Lec. 1 Lab. Offered infrequently.

GLG 646 Igneous Petrology (3)
Theoretical and laboratory treatment of modern petrologic and geochemical problems and concepts with special emphasis on phase petrology, magmatic differentiation, computer modeling and petrography. Prerequisite: GLG 643 or permission of instructor. Offered infrequently.

GLG 662 Subduction Zones (3)
Multidisciplinary examination of the subduction zone system focusing on current research of physical processes. Prerequisite(s): GLG 461/561 or permission of instructor. Offered infrequently.

GLG 671 Introduction to Geology for Teachers I (4)
Origin, evolution, structure, and composition of Earth. Credit may not be used toward M.A. or M.S. degree in geology. Prerequisite: at least 12 semester hours in college chemistry, physics, or biology. 3 Lec. 1 Lab.

GLG 710 Geology Seminar (1-3; maximum 12)
Open to students who have completed a year of graduate study. Offered infrequently.

GLG 720 Advanced Mineralogy (1-3, maximum 3)
Single crystal X-ray crystallographic studies; study of crystal structure and comparative crystal chemistry of various mineral groups. Prerequisite: GLG 484/584, 643, or equivalent work in another graduate program. Offered infrequently.

GLG 730 Advanced Igneous Petrology (1-3, maximum 3)
Experimental igneous petrology, and complex magma systems. Prerequisite: Permission of instructor. Offered infrequently.

GLG 750 Advanced Studies in Crust and Mantle Development (1-3, maximum 3)
Geochemical and tectonic development of continental crust, and evolution of the mantle. Prerequisite: Permission of instructor. Offered infrequently.

GLG 760 Advanced Carbonate Sedimentology (1-3; maximum 12)
Selected topics of sedimentology and geochemistry of carbonate sediments and rocks. Prerequisite: Permission of instructor.

GLG 770 Advanced Topics in Isotope Geochemistry (1-3; 12 maximum)
Current topics in isotope geochemistry. Recent analytical advances and results of current research. Prerequisite: GLG 527.

GLG 790 Research in Geology (1-4; maximum 12)

GLG 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60)

GERMAN COURSES (GER-Arts and Science; Department of German, Russian, and East Asian Languages)

GER 101 Beginning German I (4)
Basic grammar and development of reading, speaking, writing, and listening skills. For students with no prior study of German.

GER 102 Beginning German II (4)
Basic grammar and development of reading, speaking, writing, and listening skills. Prerequisite: GER 101, 111, or placement test.

GER 105 Everyday Spoken German (2)
Introduction to the German Language with emphasis primarily on speaking. This course will cover a broad range of language functions from introducing and describing oneself to making suggestions and asking for clarification. It will also introduce students to everyday German culture.

GER 111 Review of Basic German (3)
Covers same material as GER 101; for students with prior study of German. Upon completion of GER 111, students enroll in GER 102.

GER 141 Modern German Film: A Window on German Culture (1)
Students view a German film each week and discuss it with instructor. Films have English subtitles. Discussion in English. Open to residents of German Language Floor. Not repeatable.

GER 151 The German-American Experience (3) MPF
Explores the role that America's largest ethnic group has played in the history and culture of the United States. Topics include German settlements in Colonial America, the Eighteen-Forty-Eighters, and German-Americans in Hollywood. CAS-B-Others. IIB, Cul, H.

GER 162L Romanticism: Roots of Modernity (3)
A study of major literary voices in post-Napoleonic Europe. Included are writers like Mary Shelley, George Sand, E.T.A. Hoffmann, Georg Buchner, Emily Bronte, J.W. Goethe, Alexander Puyshkin, George Byron, and others. Attention will also be given to major issues of the time. Offered on Luxembourg campus only.

GER 179 Introduction to Jewish Studies (1)
Introduction to Jewish studies as a subject of academic study, basic concepts in Jewish studies and multidisciplinary approaches to Jewish studies. Cross-listed with ART, ENG, GEO, HBW, HST, POL, PSY, REL.

Advanced German Courses

GER 201 Second Year German I (3) MPT
Comprehensive grammar review. Course material includes written and/or broadcast texts. Discussions and compositions in German. Prerequisite: GER 102 or placement test.

GER 202 Second Year German II (3) MPT
Emphasizes comprehension of written and spoken German. Course material includes written and/or broadcast texts. Discussions and compositions in German. Prerequisite: GER 201 or placement test. CAS-A.

GER 212 Secular Jewish Culture From the Enlightenment to Zionism (3)
Surveys key aspects of secular Jewish culture, identity, thought, society & politics from mid 17th to mid 20th century. Significant treatment of Jewish life in Western Europe (France & Germany) and Eastern Europe; shorter treatment of Jewish experience in US & Mandate Palestine. Readings in English. Cross-listed with FRE/RUS 212 and HST 211. CAS-B-Other Humanities.

GER 231 Folk and Literary Fairy Tales (3) MPF
Introduction to the principles of folklore studies. Close reading of all 210 tales in the Grimms' collection, and a survey of literary fairy tales from Goethe to Hesse and Kafka. Emphasis in the second half of the course is on the way literary tales use folklore motifs. Readings and discussion in English. IIB, Cul, H. CAS-B-LIT.

GER 241 Intermediate German Conversation (2, 2)
Instruction and practice in conversation skills. May be taken concurrently with GER 201, 202. Prerequisite: GER 102 or placement test.

GER 242 Intermediate German Conversation (2, 2)
Instruction and practice in conversation skills. May be taken concurrently with GER 201, 202. Prerequisite: GER 102 or placement test.

GER 251 German Literature in Translation: Changing Concepts of the Self (3) MPF
Development of German literature from 1770 to the present centered on character portrayal and the changing assumptions about the self. Readings include Goethe, Schiller, Nietzsche, Mann, Kafka, Brecht, Freud, and Jung. Readings and discussion in English; knowledge of German not required. IIB, Cul, H. CAS-B-LIT.

GER 252 The German-Jewish Experience (3) MPF
Discusses readings of and about major Jewish figures in the German-speaking world. Frames historical background. Discover constants and changes over time. Assesses terms for analyzing culture. In English. IIB, Cul, H. CAS-B-LIT.

GER 255 Visual Representations of the Holocaust (3)
Studying the Holocaust is a profound responsibility yet also presents a tangle of critical and philosophical questions. The role of visual representations in the process of Holocaust memorialization has been particularly contested. In this course, we will approach the question of the visualization of the Holocaust through various media: photography, cinema, TV, graphic novel, painting, and architecture. Visual technologies afford an unparalleled means of sustaining memory but are also susceptible to voyeurism and commodification. We will explore the potentialities and limitations of these media and grapple with critical ethical, epistemological and esthetic questions they raise. Course readings and class discussions in English. Cross-listed with FRE/FST.

GER 260 Topics in German Literature in Translation (3; maximum 12)
Introduction to issues in German literature. Knowledge of German not required. CAS-B-LIT. Offered infrequently.

GER 261 German Cinema (3) MPT
Survey of the German cinema from its golden age in the 1920s to present day. Representative films studied both as aesthetic works and as historical artifacts. Films with English subtitles. Readings, lectures, and discussions in English. Cross-listed with FST 261.

GER 265 European Jewish Cinema (3)
Survey of European films by Jewish filmmakers or films dealing with Jewish themes, from 1920s to the present. Films with English subtitles. Readings and discussions in English. Cross-listed with FRE/FST 265.

NOTE: Prerequisite to courses taught in German on the 300-level is GER 202 or equivalent.

GER 301 German Languages Through the Media (3) MPT
German language and cultural studies using media such as film, television, newspaper and magazine articles, and Internet sources. Taught in German. Prerequisite: Completion of GER 202 or equivalent (with permission of instructor).

GER 309 Introduction to Linguistics (4) MPF
Scope of linguistics: fundamental concepts and methods of linguistic science in its descriptive and historical aspects. Cross-listed with ATH 309, ENG and SPN 303. V. CAS-E.

GER 311 Passionate Friendships in German Literature from the Middle Ages to the Present (3) MPT
Examines how intimate relationships between individuals, the bonds of love and friendship, intersect with and are shaped by social expectation, cultural taboos, and historical events. The theme is developed chronologically, from the Middle Ages to the present, emphasizing specific issues of conflict between individual desires and social norms. Texts include prose, poetry, plays, essays, interviews, and films. Primary readings, written assignments, and discussions are in German. CAS-B-LIT.

GER 312 Coming of Age in German Life and Thought (3) MPT
Explores short and long texts as well as excerpts from works by some of the leading authors of German literature, written over several centuries. The intertwined themes of personal, social, political, and national maturation will guide this exploration. Lectures and discussions are in German. CAS-B-LIT.

GER 321 Cultural Topics in German-Speaking Europe Since 1870 (3) MPF, MPT
Explores several major cultural foci within the German, Austrian, and/or Swiss experience. Readings, discussions, guided research projects predominantly in German. IIB, Cul, H. CAS-B-LIT.

GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S.A. (3) MPF, MPT
Explores patterns of everyday life in German-speaking European culture and compares them with similar cultural patterns in contemporary U.S. life. Lectures, readings, and discussions in German. IIB, Cul, H. CAS-B-LIT.

GER 330 German Drama Production (1-2; maximum 8)
Study, rehearsal and stage production of a play or dramatic revue in German. Prerequisite: German 202 or permission of instructor.

GER 331 The Structure of Modern German (3)
A study of the principles of syntax (sentence and phrase structure) and morphology (word structure including case inflection and conjugation) of modern German, both spoken and written.

GER 350 Topics in Contemporary Writing - German (1 to 3)
Explores current issues of German-speaking societies in contemporary as well as historical contexts.

GER 356 Contemporary Jewish Fiction In Europe (3)
Fiction and autobiography from the 1970's to the present by Jewish authors of diverse European backgrounds. Emphasis on national identity and changing relationships to the Holocaust. Readings and discussions in English. Cross-listed with ENG/FRE 356.
Note: The following courses except GER 442/542 require six hours chosen from GER 311, 312, 321, 322, or equivalent, except where noted.

GER 410/510 Seminar in German Language and Literature (1-4)
Investigation of topic or problem established by instructor. CAS-B-LIT.

GER 421 Survey of German Poetry (3)
Critical reading, reflection, and discussions on poetry written in German from pre-Christian fragments to contemporary poetry. Students study major poets, use correctly basic critical terminology used in scholarship, identify predominant themes and prevalent poetic forms. Offered alternate years.

GER 422 Major Themes in German Drama (3)
Representative plays from the 18th to the 20th century are grouped around major themes such as (1) Gender, Love, and Sexuality; (2) Problems of Evil and Guilt; (3) Social Responsibility and Alienation. Classical and modern works are juxtaposed to explore changes in dramatic conventions and to differentiate between stage drama, radio play, and film. Offered alternate years.

GER 423 Survey of German Prose Fiction (3)
Critical reading, reflection, and discussions of German prose fiction from its beginnings to the 20th century. By the end of the course students should have a fairly clear sense of the range of styles, the predominant themes, and the major figures of German prose. Offered alternate years.

GER 461 Germany Milestones in the 20th Century (3)
An exploration of German life in the twentieth century, using film as the chief medium, and drawing upon other cultural artifacts to provide additional perspectives. Taught in German.

GER 471/571 Linguistic Perspectives on Contemporary German (3) MPC
The interaction of social factors and language in the development of the standard language of German, Austria and Switzerland throughout history until the present.

GER 480 Department Honors (1-6; maximum 6)
Department honors may be taken for a minimum of four semester hours and a maximum total of six semester hours in senior year. Permission of instructor and department required.

GER 610 Self-Paced Graduate Reading Course in German (1-6)
Prepares students pursuing advanced degrees in other departments to read German in their fields of study. Individualized format offers flexibility in scheduling, pace, and text selection. Prerequisite: graduate standing; seniors planning graduate study may seek permission of instructor.

GER 680 Independent Study (1 to 6)
Independent study in German language and literature.

GERONTOLOGY COURSES (GTY-Arts and Science; Department of Sociology and Gerontology)

GTY 154 Aging in American Society (3) MPF, MPT
Overview of the processes of aging. Emphasis placed on 'typical' aspects of aging from three perspectives: the aging individual, social context of aging, and societal responses to an aging population IIC.

GTY 260 Global Aging (3) MPT
Course integrates bio-demographic and socio-cultural approaches to the study of global aging by drawing on cross-cultural quantitative data and qualitative ethnographic records. Prerequisite: GTY 154.

GTY 318 Sociology of Aging and the Life Course (3) MPT
Sociology provides a unique perspective on and significant contributions to the field of gerontology. This course uses sociological theories, perspectives, and conceptual frameworks to analyze aging-related social issues. Examines the social forces that shape the diverse experiences of aging for individuals. Greatest emphasis is placed on structural issues such as age stratification, the life course, and societal aging as a force in social change. Prerequisite: GTY 154. Cross-listed with SOC 318.

GTY 335 Disability and Aging (3)
This course examines the experiences of disability and aging from a life course perspective, with an emphasis on the social construction of both disability and aging and their interaction. Identifies and examines issues of disability definition and measurement; individual and societal responses to disability and aging; and the outcomes of these responses for individuals, families, communities and society. Prerequisites: GTY 154. Cross-listed with DST.

GTY 356 Biopsychosocial Aspects of Health and Aging (3)
Employing the biopsychosocial approach, this course provides an overview of biological theories and demography of aging; provides practical information about the aging of biological systems; explores functional health, health promotion, and quality of life; and discusses optimal aging. Prerequisite: GTY 154.

GTY 357 Medical Sociology (3)
Sociological study of illness, patients, medical professionals, and problems inherent in the delivery of health care services. Prerequisite: SOC 151, SOC 152 or GTY 154. Cross-listed with SOC 357.

GTY 365 Social Policy and Programs in Gerontology (3)
Provides practical information about working in programs serving older people. Topics include social policy and old age, health policy and programs, federal economic reform, grantsmanship, program planning and coordination, and professions in the field of aging. Prerequisite: GTY 154.

GTY 375 Aging, Self and Society (3)
This course surveys a continuum of perspectives on self and society as they apply to aging and age-transitions across the life course. The course draws upon the symbolic interactionist tradition as an orienting perspective, and on lifespan developmental psychology to examine cognitive and social-emotional development in later life. Prerequisite(s): GTY 154.

GTY 430 Field Experience in Gerontology (3; maximum 6) MPT
Provides students with weekly exposure to an organization that works on behalf of/provides services to older adults, and requires weekly reflection on these experiences with the instructor and other students via Blackboard. Prerequisite(s): GTY 154, three additional GTY credit hours, and permission of instructor.

GTY 440G Capstone Field Experience in Gerontology (1-16; maximum 16) MPC
Through field placement and a weekly seminar, students engage with others as they discuss their field site organization and professional challenges. Credit/no-credit only. Maximum of four hours may be counted toward the gerontology minor. Prerequisite: GTY 154, three additional credit hours in gerontology, and permission of instructor.

GTY 460/560 Selected Topics in Gerontology (2-4; maximum 10)
Draws upon current literature and research for in-depth consideration of selected special topics in gerontology. Prerequisite: GTY 154.

GTY 463/563 Gender and Aging (3) MPT
Examination of how gender constructions shape the aging process, with particular focus on how various social, psychological, physical, and cultural factors affect men, women, and transgendered persons differently as they grow older. Cross-listed with SOC/WMS. Prerequisite: (463) GTY 154; (563) GTY 602 or permission of instructor.

GTY 466/566 Later Life Families (3) MPT
Examination of family kinship patterns during mid and later life. Topics include relations with romantic partners, adult children, siblings, and other kin, as well as widowhood, grandparenthood, friendships, and policy issues impacting mid and later life families. Cross-listed with FSW.

GTY 472/572 Race, Ethnicity and Aging (3) MPT
Examines aging among U.S. minority and ethnic groups. Topics include theoretical perspectives, demographics, economics, health, social support, public policy and service delivery systems, and the role of culture in adaptation to aging. Prerequisite: (472) GTY 154; (572) GTY 602 or permission of instructor. Cross-listed with BWS.

GTY 476/576 Environment and Aging (3) MPT
Examines the changing environmental experience of the older person from several theoretical perspectives. Topics include aging in urban and rural places, age-integrated and age-segregated settings, housing options and housing policy in the U.S., design and supportive technologies, and the cultural meaning of place. Prerequisite: (476) GTY 154; (576) GTY 602 or permission of instructor. Cross-listed with ATH.

GTY 478/578 Racial/Ethnic Disparities in Chronic Illness (4)
Examines racial/ethnic disparities in chronic diseases through lecture modules and secondary data analysis of large-scale survey data. Lecture topics include biological, psychological, and social aspects of disease; clinical and self-management of the disease; and ethnic/racial disparities in health and health care access. Prerequisite(s): GTY 154 or SOC 151, and STA 261, SOC 262; OR GTY 602 or permission of instructor.

GTY 485/585 Long-Term Care in an Aging Society (3)
Examines the major components of long-term care, critiques current approaches to delivering long-term care, examines future challenges, and discusses solutions for an aging society. Prerequisite: (485) GTY 154; (585) GTY 602 or permission of instructor.

GTY 602 Perspectives in Gerontology (3)
Overview of theories and major issues in social gerontology including the development of the field.

GTY 603 Psychology of Aging in Everyday Life (3)
Discusses major conceptual approaches to the psychological study of adult development in the domains of cognition, personality, and social-emotional functioning, using the theoretical framework of life-span developmental psychology. Explores strengths, weaknesses, and limitations of important empirical studies and their implications for theories of normative and successful aging.

GTY 605 Gerontology Proseminar A,B,C,D (1)
Personal, academic, and professional development of MGS students. Exposure to faculty research and mentoring; external educational opportunities; portfolio development; formation of a collaborative writing group. A and C offered fall semester; B and D are offered spring semester.

GTY 608 The Logic of Inquiry (4)
Presents detailed information about, and experience with, aspects of research design in social gerontology including conceptualization, measurement, sampling, analysis, and reporting. Examines inductive and deductive approaches to research questions and the use of national electronic data sets. Prerequisite(s): Admission into the MGS program or permission of the instructor. Concurrent Course(s): GTY 602, GTY 605A, GTY 667.

GTY 609 Qualitative Research Methods (3)
Provides an introduction to the paradigmatic assumptions of qualitative research methods and strategies of data collection, analysis, and writing. Focuses on research questions and issues in gerontology.

GTY 611 Linking Research and Practice (3)
Application of principles of research methods to agency-based evaluation of programs. Focuses on the uses and design of program evaluation research, including program initiation, process evaluation, and outcome assessment. Includes a component on grant-writing and budgeting for evaluation activities. Prerequisites: GTY 602, GTY 608.

GTY 615 Readings in Gerontology (1-6)
Directed readings on selected topics in gerontology, for pass/fail grade.

GTY 620 Supervised Research or Reading on Selected Topics in Gerontology (1-12; maximum 12)
Prerequisite: Graduate standing and permission of instructor.

GTY 641 Organizations and the Aging Enterprise (3)
Weekly seminar to prepare graduate students for the practicum. Topics include types of aging-related organizations; organizational theory and behavior; organizational analysis; and professionalism (e.g., goal setting, ethical issues).

GTY 666 Aspects of Long-Term Care: Health (3)
Health and quality of care, medical ethics, environmental health, and delivery of health services in a long-term care facility are addressed. Prerequisite: GTY 602 or permission of instructor.

GTY 667 Policy and Politics of Aging (3)
Focuses on major policy areas including income security, health care, long-term care, housing, and social services. Concurrent course(s): GTY 602, GTY 608, GTY 605.

GTY 676 Program Management in Aging (3)
Analysis of administrative responsibilities in programs and services in the field of aging. Prerequisite: GTY 602 or GTY 667 or permission of instructor.

GTY 684 Global Aging (3)
This course uses a comparative perspective to examine multiple societal and individual aspects of aging around the globe, including social insurance and welfare, health care, demography of aging, disability and active life expectancy, mortality, service delivery, work and retirement, long-term care, and caregiving. Prerequisite(s): GTY 602.

GTY 686 Global Health and Health Care Systems (3)
Focuses on concepts, issues, and research addressed to health care systems from a comparative standpoint. Explores the uniform and the variable components of a health care system, the product of health care systems, how health care systems reflect and promote the values and institutions of a society, and how the major components of modern medicine relate to each other and to pre-modern or alternative components. Prerequisite(s): GTY 602.

GTY 700 Critical Inquiry In Gerontology (1 to 6)
Guided independent research required as a culminating, integrative experience for all MGS students. Students will design and execute a project that involves either original data collection, secondary data analysis, or critical analysis of policies and programs in the field.

GTY 702 Knowledge Construction & Advanced Theory (3)
Examines the epistemological and ideological underpinnings of knowledge construction and explores the reciprocal relationship between theories and dominant research questions with particular emphasis on theory construction in gerontology. Builds on and reexamines issues and topics discussed in GTY 602 and GTY 608.

GTY 705 Communicating Gerontological Knowledge (3)
Explores strategies for communicating gerontological knowledge and provides practical experience with these strategies. Addresses the teaching of gerontology in traditional classroom settings as well as making presentations to various audiences, and for various purposes, in applied and policy settings.

GTY 708 Quantitative Methods and Statistics (3-4)
Explores basic designs of survey and experimental research in aging. Discusses issues of measurement, sampling, causality, the concept of the sampling distribution as the basis for inferential statistics, and introductory and intermediate statistical techniques for continuous and categorical data. Prerequisite(s): GTY 608 or permission of the instructor.

GTY 709 Advanced Qualitative Research & Methods (4)
Builds on GTY 609 by focusing on the major genres in qualitative research, including participant observation, organizational case studies, phenomenological and narrative interpretation, participatory action research, and qualitative evaluation/policy research. Stresses practical mastery of strategies and skills in particular genres, according to students' dissertation interests.

GTY 715 Readings in Gerontology (1-6; 6 maximum)
Directed readings on selected topics in gerontology for doctoral students. Credit/No Credit only.

GTY 718 Statistical Modeling in Gerontology (3)
Focuses on statistical modeling techniques for continuous and categorical outcomes in aging research. Examines multivariate techniques based on the generalized linear model with opportunities for application using large scale gerontological datasets with special focus on longitudinal data analysis. Prerequisite(s): GTY 708 or permission of instructor.

GTY 720 Individual Investigation (1-6; maximum 6)
Advanced research on selected topics and problems in gerontology.

GTY 740 Graduate Practicum in Gerontology (1-12; 8 minimum)
Field experience for graduate students interested in research experience or applied aspects of gerontology. Students assigned to a program involving research activities, service provision, or administration of programs related to the aging and aged populations. Prerequisite: GTY 602 and permission of instructor.

GTY 745 Sociology of Aging (3)
Examines the sociological perspective, its contributions to social gerontology, and its application to issues facing an aging society. Reviews the role of major sociological theories and frameworks (such as structural functionalism, exchange, and conflict theories) in the development of social gerontology.

GTY 747 Demography & Epidemiology of Aging (3)
Explores fertility, mortality, and global aging; distribution of health and illness within a population; age-based migration and its impact on locations of origin and destination; variations in health and mortality by gender, race, ethnicity, and social class; impact of health and mortality patterns for individuals, society and public policy.

GTY 750 Topics in Advanced Quantitative Methodology in Aging Research (1-4: maximum 20)
Examines advanced quantitative methodology techniques in aging research. Specific special topical sections focus on particular quantitative methodologies including especially those techniques needed for working with longitudinal data and those techniques that address issues of age, period, and cohort effects. Some sections have data analysis laboratory requirements. Prerequisite(s): GTY 718 or permission of instructor.

GTY 767 Policy Analysis In An Aging Society (3)
Provides a framework for understanding the development and implementation of public policy. Examines major policy debates, critiques current policy efforts, and makes recommendations for how policies and programs can be improved.

GTY 790 Pre-candidacy Doctoral Research in Gerontology (1-12; maximum 12)

GTY 850 Doctoral Dissertation Research (1-6; minimum 16, maximum 60)
Prerequisite: successful completion of comprehensive examination.

GRADUATE SCHOOL COMMUNITY COURSES (GSC-Center for the Enhancement of Learning Teaching and University Assessment- CELTUA)

GSC 601 Graduate Student Teaching Enhancement Program(1; maximum 2)
Orients graduate students to basic, practical issues related to college teaching, scholarship and service, and how these faculty roles are affected by institutional context. To be taken concurrently with membership in the CELTUA Graduate Student Teaching Enhancement Program.

GSC 602 College Teaching (1)
Orients graduate students to theory and research in college pedagogy as well as teaching skills. Open to students in the Certificate in College Teaching program.

GSC 603 Academic Cultures (1)
Orients graduate students to basic, practical issues related to college teaching, scholarship and service, and how these faculty roles are affected by institutional context. Open to students in the Certificate in College Teaching Program.

GREEK LANGUAGE AND LITERATURE COURSES (GRK-Arts and Science; Department of Classics)

GRK 101, 102 Beginning Greek (4, 4)
(101) Essentials of ancient Greek including basic principles of grammar, acquisition of basic vocabulary, and practice in reading and writing. (102) Continuation of GRK 101 culminating in readings selected from Homer, Plato, Xenophon, or Greek New Testament. Prerequisite: (102) completion of GRK 101 or equivalent.

Advanced Greek Language and Literature Courses

Note: Greek 101, 102 or equivalent are the minimum prerequisite for all advanced courses in Greek.

GRK 201 Homer (3)
Introduction to the language, historical background, and artistic riches of Homer. Selected readings from Iliad or Odyssey. Prerequisite: GRK 101, 102. CAS-B-LIT.

GRK 202 Plato (3)
Introduction to Greek prose based on reading selections from Plato. Emphasis on reading comprehension and critical assessment of text. Prerequisite: GRK 201. CAS-B-LIT or CAS-A (not both).

GRK 301 Advanced Readings in Representative Authors (3)
Close study of readings in history, tragedy, philosophy, or epic. Course will meet with GRK 201, but students registered under GRK 301 will be assigned additional work appropriate for their more advanced standing. Prerequisite: GRK 202. CAS-B-LIT.

GRK 302 Advanced Readings in Representative Authors (3)
Close study of readings in history, tragedy, philosophy, or epic. Course will meet with GRK 202, but students registered under GRK 302 will be assigned additional work appropriate for their more advanced standing. Prerequisite: GRK 202. CAS-B-LIT.

GRK 310 Special Topics in Greek Literature (3; maximum 12; may be repeated when content changes)
Study of selected authors or special topics in Greek literature. Prerequisite: GRK 202. CAS-B-LIT. Offered infrequently. Recent offerings have included:

GRK 410 Special Topics in Greek Literature (3; maximum 12; may be repeated when content changes)
Study of selected authors or special topics in Greek literature. Prerequisite: GRK 202. CAS-B-LIT. Recent offerings have included:

GRK 480 Independent Reading for Department Honors (3)
Reading centered upon a major topic of Greek literature and thought, normally culminating in an independent essay. Prerequisite: advanced level ability usually requiring completion of course offerings or equivalents, GRK 101 through at least one semester at 400 level.

GRK 630 Graduate Work in the Greek Language (1-4; maximum 12)
Graduate standing and permission of department chair and instructor required.

HEBREW COURSES (HBW-Arts and Science; Department of German, Russian, and East Asian Languages)

HBW 101 Beginning Modern Hebrew (4)
Basic grammar and development of reading, speaking, writing, and listening skills. No prior study of Hebrew needed.

HBW 102 Beginning Modern Hebrew (4)
Continuation of basic grammar and development of reading, speaking, writing, and listening skills. Prerequisite: HBW 101 or equivalent

HBW 201 Intermediate Modern Hebrew (3)
Conversation, vocabulary building, readings, composition, grammar. Prerequisite: HBW 102 or equivalent.

HBW 202 Intermediate Modern Hebrew (3)
Continued development of conversation skills, vocabulary acquisition, reading and writing strategies, as well as grammar skills. Prerequisite: HBW 201 or equivalent. CAS-A

HBW 680 Directed Study in Hebrew Language and Literature (1-4; maximum 12)
Prerequisite: Graduate Standing and permission of department chair and instructors.

HINDI COURSES (HIN-Arts and Science)

HIN 101 Beginning Hindi I (4)
Introductory course in Hindi language which through a combination of graded texts, written assignments, and audio-visual material develops students' speaking, listening, reading, and writing skills. Hindi culture will also be integrated.

HIN 102 Beginning Hindi II (4)
This is an introductory course in Hindi language which, through a combination of graded texts, written assignments, and audio-visual material, develops students' speaking, listening, reading and writing skills. Hindi culture will also be integrated which builds upon Hindi 101. Prerequisite(s): HIN 101.

HIN 201 Intermediate Hindi I (3)
Continuation of the first year of Hindi and fosters the four language skills including speaking, listening, reading, writing as well as culture. Prerequisite: HIN 102 or permission of instructor.

HIN 202 Intermediate Hindi II (3)
The fourth course in the sequence of Hindi courses which builds upon language skills including comprehensive grammar, engaging in fluent discourse, advanced reading, writing, and comprehension, utilizing various genres/styles of spoken/written Hindi. Prerequisite(s): HIN 101, 102, and 201 or permission of instructor. CAS-A.

HISTORY COURSES (HST-Arts and Science)

Note:
1. All history courses may be applied to CAS-B.
2. The second unit of a two-semester course may be taken before the first unit; credit is given for any semester unit of 111, 112, 121, 122.

HST 111/112 Survey of American History (3,3) MPF
Survey of the interplay of forces that have brought about evolutionary development of American economic, cultural, and political history from 1492 to the present. A functional and synoptic treatment of America's great historical problems. IIB, Cul, H.

HST 121/122 Western Civilization (3, 3) MPF
Ideas, values, institutions, great events, and personalities in the development of European civilization from antiquity to the present. Objective is to understand historically the major societal issues and cultural themes which have defined concepts of humanity and society in the Western world. IIB, Cul, H.

HST 197 World History to 1500 (3) MPF
Introduction to the origins and early development of individual civilizations prior to the period of Western European hegemony. Stresses interdependency and interrelations among cultures, and compares social, political, and religious experiences of peoples with one another. IIB, Cul, H.

HST 198 World History Since 1500 (3) MPF
Provides global perspective as well as introduction into history of individual civilizations. Stresses interrelations among societies and cultures and compares experiences of peoples and civilizations with one another. IIB, Cul, H.

HST 201 Technology, History and Society (1)
Studies the interrelationship among technology, history, and society. Focuses on specific areas of technologies, particularly those that affect everyday life such as shelter, food production, and energy. Cross-listed with MME 201.

HST 206 Introduction to Historical Inquiry (3)
Introduction to essential skills in investigating and interpreting the past. Course stresses active participation, writing, and intensive reading of primary documents and secondary literature. Required of (and limited to) History Majors.

HST 208 The Rise of Industrialism in East Asia (3) MPF
Introduction to historic parameters, geographic variables, state policies, and sociocultural contexts of industrialism in East Asia (China, Japan, Korea, Taiwan, Hong Kong, and Singapore). Cross-listed with GEO, ITS, SOC, and POL 208. IIIB, H.

HST 212 United States History since 1945 (3)
In-depth examination of political, social, economic, and cultural/intellectual developments in the U.S. since the end of World War II.

HST 213 Appalachia: Cultures and Music (3)
History of country music since 1925 in context of Appalachian culture, regional modernization, and emergence of national media. Authenticity and cultural traditions, fans and artists, performance ceremonies, African American and gospel contributions, technological innovation in recording, radio, movies, and television. Cross-listed with AMS.

HST 214 History of Miami University (3)
Miami University since 1809 from perspectives of local culture; national, social, and economic forces; and history of higher education. Key moments of change; continuity and difference through time; groups and traditions; architecture and landscape; influences of gender, class, race, and region. Cross-listed with AMS 214.

HST 216 Introduction to Public History (3)
Introduction to the major issues addressed by historians who work in the public sphere, with emphasis on the creation of a shared public past and the disciplines that comprise the field of public history. Cross-listed with AMS 216.

HST 217 Modern Latin American History (3)
Introduction to the major themes shaping Latin American history since independence, including US foreign policy; economic development; the discourses of race, ethnicity, class, and gender; cultural elements that either unite or distinguish Latin American countries. Cross-listed with LAS.

HST 219 U.S. Diplomatic History to 1914 (3) MPT
From 1776 to 1914, emphasizing the conflicts over issues of isolationism, neutrality, manifest destiny, imperialism, arms control, the Monroe Doctrine, and the Open Door. Offered infrequently.

HST 221 African-American History (3) MPT
Survey of African-American history, concentrating upon the black experience in the United States. Black America from African origins to the 20th century. Cross-listed with BWS 221.

HST 222 U.S. Diplomatic History Since 1914 (3) MPT
Survey of U.S. foreign policy from 1914 to the present, with emphasis on issues of neutrality, isolationism, collective security, imperialism, the Cold War, nuclear policy, arms control, and relations with the Third World.

HST 223 Assassinations in U.S. History (3) MPT
Analysis of key assassinations in the U.S. by examining conflicting theories, evidence, and official investigations in the context of controversy over 'conspiracy v. lone nut.'

HST 224 Africa to 1884 (3) MPF
Survey course focusing on the changing historiography of Africa, African ancient civilizations, the emergence and development of the Bantu and Nilotes, Eastern Africa and the Orient, early Christianity and Islam, trans-Saharan trade, the medieval Sudanic Empires, statelessness and state formation, Africa and the West between 1400 and 1800, South Africa to 1870, the Mfecane, the Sudanic Jihads, long-distance trade, and African-European relations in the 19th century. Cross-listed with BWS 224. IIB, Cul, H.

HST 225 The Making of Modern Africa (3) MPF
Survey of the transformation of Africa, south of the Sahara, from the time of the scramble for, and partition of, the continent among European powers in the second half of the 19th century to the present. Emphasizes economic, social, cultural, political, and intellectual features. This is done through reading monographs, articles, and literary works (novels, plays, poems, etc.) on African experiences with colonialism, the rise and triumph of nationalism, African womanhood, popular culture and the experiences of change, and the rise and nature of post-colonial economic and political crises in the region. Cross-listed with BWS 225. IIB, Cul, H.

HST 232 The Development of Christianity: 100-451 (3)
Development of Christianity and interaction between religion, culture, society, and politics from the 2nd through the 5th centuries. Cross-listed with REL 232.

HST 241 Introduction to Islamic History (3)
Introduction to medieval Islamic and Middle Eastern society, culture and political history from the Prophet Muhammad to the rise of the Ottomans.

HST 242 The History of the Modern Middle East (3)
Introduction to pre-modern and modern Islamic and Middle Eastern society, culture and political history from the Ottomans to the present.

HST 245 Making of Modern Europe, 1450-1750 (3)
Survey of European history in global context from the Renaissance through the Enlightenment. Emphasis on political, cultural, and religious change in the first global age. Class also introduces students to the skills of historical thinking, and why they are essential to living in a global age.

HST 250 History and Popular Culture (3)
Topical studies of historical imagery as presented in the popular communications media: best-selling fiction, documentaries, school texts, 'popular' histories, and especially film. Students may not take course more than once with same instructor.

HST 251 Gender & Third World Film (3)
Analysis of selected films from the perspectives of film technique and the political, economic and social context of filmmaking in Africa, Asia, the Middle East and Latin America. How film techniques are used to highlight cultural views of gender. Cross-listed with FST 251.

HST 252 Representation of History in Film and Video (3)
Attempts to familiarize students with ways that history is represented in film and video (as opposed to print). By comparing film to texts, analyzing narrative structure, and studying the techniques of film and video making, students learn how history is depicted in this medium. Introduces history of film by viewing and discussing works of several early directors who represented history. Films and directors selected for inclusion will vary from year to year. Cross-listed with FST 252. Prerequisite: FST 201 recommended (not required).

HST 254 Introduction to Russian and Eurasian Studies (3)
Examines the major developments that have shaped Russian and Eurasian Culture, society and politics over the last millennium. The course incorporates perspectives from the social sciences, humanities and the fine arts. Cross-listed with ATH, REL, POL, RUS 254.

HST 259 Russia's Imagined Orient: Caucasus and Central Asia on Page and Screen (3)
Investigates how modern Russian culture has represented the Caucasus and Central Asia through literature and film. Taught in English. Cross-listed with RUS 259.

HST 260 Latin America in the United States (3) MPF
Interdisciplinary examination of historical, social, economic, and cultural forces that have shaped the experience of peoples of Latin, Hispanic, Latino/a background in the United States. Cross-listed with LAS 260. H, IIIB. G-Course.

HST 270 Topics in European History (3-4; maximum 12)
Topics in European History. May be repeated when topic changes.

HST 271L Western Heritage (3)
Analyze the origins of the key values, attitudes and aspirations out of which the western World has emerged since the days of the Italian Renaissance.

HST 275 20th Century European Diplomacy (3) MPT
Examines the origins of World War I and World War II, the Cold War, European unity, decolonization, the fall of communism, and the Yugoslav conflict.

HST 281 Historical Research: Libraries and Beyond (1)
Prepares students to perform basic secondary and primary historical research. Students learn to use MiamiLink, electronic historical periodical indexes, and historical information resources and to locate, identify, and evaluate primary sources. Prerequisite: sophomore standing.

HST 296 World History Since 1945 (3) MPF
From Hiroshima to the Information Age. Focuses on the politics of identity and social history. Students taking this course may not earn credit for HST 398. IIB, Cul, H.

HST 301 Age of Revolutions, Europe 1750-1850 (3)
Examines the causes of the French and Industrial Revolutions and explores how they changed the social, economic, political, and cultural fabric of a continent. Prerequisite: none, but HST 122 recommended. Offered infrequently.

HST 302 War and European Cinema (3)
Explores how films have constructed ideas about war in 20th Century Europe. Examines films of the First World War, the Second World War, the Balkan War of the 1990s, and the Chechen War. Through readings, discussions, and viewings, students will gain a better understanding of how war is represented on the "big screen" and how wars of the 20th Century have been remembered and recast in film. Cross-listed with FST 302.

HST 303 Making of Modern South Asia (3)
Historical context for understanding contemporary South Asia (India and Pakistan in particular). Briefly covers the pre-modern history of the Indian sub-continent, then focuses on the history of colonial and post-colonial social, economic and political realities in South Asia.

HST 304 History, Memory, Tradition (3)
Examination of the role of history, memory, and tradition in American culture, and the theoretical underpinnings of public history. Cross-listed with AMS 304.

HST 307 Latin American Civilization - Colonial Period (3)
Spanish and Amerindian backgrounds, discovery, conquest, colonial institutions, and social development to the eve of independence.

HST 313 History of England to 1688 (3)
Life of the English people from the beginning of the Middle Ages to 1688.

HST 314 History of England Since 1688 (3)
Life of the English people since 1688.

HST 315 The Renaissance (3) MPT
Intellectual developments of the period 1350-1550, set in their social, economic, and political contexts. Focuses on origins and development in Italy, but also looks to the movement's wider European context and impact. Topics include the 14th century crisis, humanism, the family, the debate between active and contemplative life, Renaissance court life, and the state as a work of art. Authors read include Petrarch, Kempe, Colonna, Valla, Castiglione, Machiavelli, Erasmus, More.

HST 316 The Age of the Reformation (3)
The religious revolutions of the 16th century, both Protestant and Catholic, in their social, political, and religious contexts. Topics chosen from: medieval reform movements and heresies; popular religion; the debates over clerical celibacy, free will, and the priesthood; social discipline and the modern state; family and women; the missions to the New World; the witch craze and the Inquisition. Cross-listed with REL 316.

HST 317 The Dutch Golden Age: The Netherlands in the Early Modern World (1550-1800) (3)
History and culture of The Netherlands in the early modern world, 1550-1800, in global perspective.

HST 318 British Empire (3)
Examines British Empire from the late 18th century to the 1960s. Emphasis is on the interaction of the peoples gathered into the Empire with their imperial rulers.

HST 319 Revolution in Latin America (3)
History of modern Latin America through the experience of revolution in the 20th century. Focus on revolutionary experiences in four countries that had an enormous impact far beyond their borders: Mexico, Bolivia, Cuba, Nicaragua. Cross-listed with LAS 319.

HST 323 Women/Gender in Modern Europe (3)
History of women and gender in Western society from the time of the French Revolution, 1789, to the present. Cross-listed WMS 323.

HST 324 Eurasian Nomads and History (3)
Examination of the nomads of the Eurasian steppes and their role in the civilizations of the Eurasian periphery, including China, India, the Near East, and Russia.

HST 325 Images of Africa (3)
How have Africans and Europeans perceived each other? With what effects on action? Emphasizing the discussion method, this course explores relationship between African and European worlds

and traces patterns of their relations from slave trade to the present day. Cross-listed with BWS 324. Offered infrequently.

HST 327 Ancient Rome: The Republic (3)
History of the Roman Republic, from the overthrow of the kings and the leadership of the first consuls (509 BCE), to the creation of empire (264-167 BCE), and the civil strife (c. 130-31 BCE) which caused the republic's downfall and the rise of the emperors.

HST 328 Italy: Machiavelli to Mussolini (3)
Explores Italian history from the end of the Renaissance, through the Baroque, the Enlightenment, Romanticism, and on to modernity. Addresses questions about culture and society, identity and nationality, art and politics, and about Italy's influence worldwide.

HST 329 Lynching in America 1865-1940 (3)
The rise and fall of lynching in America from the end of the Civil War into the 1930s, with the epilogue on recent racial crimes, lynching and memory, and the resonance of lynching in today's society.

HST 330 Topics in European History (1-4; maximum 9)
Topics in European history. May be repeated when topic changes.

HST 331 Industry and Empire: Europe from 1850 to 1914 (3)
Explores the period during which Europe came to control the political and economic destiny of much of the world. This was also the period in which great mass movements that were to dominate the 20th century were born, theoretical constructs of the social sciences were created, and a great blossoming of national literatures and cultures occurred. Particular attention paid to the attempts states made to cope with new social and economic dynamics of the industrial world, as well as socialism, nationalism, and anti-Semitism.

HST 332 Age of Dictators: Europe 1914-1945 (3) MPT
Focuses on the great crisis of 20th century European civilization, from the outbreak of war in August 1914 to the defeat of Hitler's Germany in May 1945. Through novels and historical monographs, explores effects of total war and mass mobilization on the industrially advanced state systems of the period, as well as social emancipation, economic disintegration, and cultural innovation brought on by the great wars of the period. Attention paid to the experience of the "great powers" (Germany, the Soviet Union, Britain, and France).

HST 333 Reconstruction of Europe Since 1945 (3)
Examines how Europe came to be divided into two political spheres sustained by dueling military alliances. Focuses on political and economic reconstruction within the two blocs created by the Cold War divide, as well as new cultural impulses generated by changed realities of a shrunken and shattered Europe after 1945. Examines the revolutions of 1989, the fall of the Soviet Union, and process of European unification.

HST 339 Jews in Modern France: Between Image and Experience (3)
The experience of Jews in modern France, and the figuration of ¿Jews¿ in the French cultural imaginary, have been complex and equivocal. In 1791, revolutionary France became the first European country to extend the right of citizenship to Jews. Yet France has also known deep currents of antisemitism. This ambivalence survives into the contemporary moment. In post-war French discourse, Jews have frequently been championed as the bearers of a deterritorialized, decentered, identity-less identity par excellence and, more recently, have been the targets of violence and vilified in ways that both break with and recall traditional antisemitism. In this course, we will explore the experience and the representation of Jews in French society and culture from before the French Revolution of 1789 to the present day in historical documents, novels, political cartoons, philosophical essays, historical scholarship, and films. Course readings and class discussions in English. Cross-listed with FRE.

HST 340 Internships (1-12; maximum 16)
Prerequisite: permission of department chair.

HST 341 East African History (3)
Examines how the modern states of Kenya, Uganda, Tanzania, Rwanda, and Burundi came into being over the past century and a half, the ways their boundaries have been permeable, and the rise and persistence of the issue of regional integration. Cross-listed with BWS 341.

HST 342 Africa Since 1942 (3)
Addresses events and processes of change that informed sub-Saharan Africa after WWII, the meanings and experiences of decolonization, and the problems of political and economic development after independence. Cross-listed with BWS 342.

HST 345 Survey of Medieval History After 1000 (3) MPT
Formation of European Synthesis: from the crusades to 15th century.

HST 346 Medieval Jewish History (3) MPT
Introduction to the history of the Jews of medieval Europe (the Ashkenaz) including Jewish culture, the beginnings of Christian persecution, and interactions and comparisons to Sephardic Jewish communities.

HST 348 Witch Crazes and Other 'Great Fears' in Europe and America (3)
Examination of mass arrests, violence or intimidation in four settings: the witch hunts of early modern Europe (roughly 1400-1700) and Salem in 1692, lynching in the American South from the end of the Civil War to World War II, the USSR's 'Great Terror' of the late 1930s and McCarthyism in the 1950s. Particular attention devoted to gender issues, social psychology of the fears, the dynamics of arrests and popular response, and causes of the outbreaks and end of the fears. Prerequisite: HST 122 or permission of instructor.

HST 349 France in the Age of the Enlightenment (3)
The 'Age of the Enlightenment' in France coincides with the reigns of King Louis XV and Louis XVI. It represents one of the richest and most controversial eras of European history. Through reading monographs and articles on the functioning of the monarchy, on the world of everyday people in Paris and the countryside, and the intellectual climate of the era, students reconstruct the time known as the 'ancient regime.' Analyzes primary readings by authors such as Diderot, Voltaire, Du Chatelet, and Rousseau to gain a sense of the intellectual excitement of the Enlightenment.

HST 350 Topics in American History (3-4: maximum 9)
May be repeated when topic changes.

HST 353 History of Chinese Civilization (3)
Survey of Chinese civilization, its origins and evolution in political institutions, economic activity, social structure, and cultural aspects from prehistory to 1840. Offered infrequently.

HST 354 Modern Chinese History (3)
Survey of changes in institutions, ideas, economy and society in China's search for modernity from late imperial times (17th to 19th centuries) to the present.

HST 356 Modern Japanese History (3)
Major issues in the history of Japan from mid-19th century to recent times such as the Meiji Restoration, the impact of the West, tradition and modernity, industrialization, social and cultural development, and wars and democracy.

HST 359 Junior Honors Colloquium (3)
Introduction to some of the issues involved in the conceptualization and writing of a major history project. Designed for students planning to write a thesis in history in the senior year.

HST 360 Topics in Interdisciplinary and Comparative History (1-4; maximum 8)

HST 361 Colonial America (3)
Exploration and conquest of North America by Europeans and the development of English colonies to 1730.

HST 362 The Era of the American Revolution (3)
Origins, events, and legacies of the American Revolution, with particular emphasis on political and social developments. Cross-listed with AMS 362.

HST 363 The Early American Republic, 1783-1815 (3)
Emphasizes the Constitution, the Federalists, and the Jeffersonians with study of Washington, Madison, Hamilton, John Adams, and Jefferson as major figures. Cross-listed with AMS 363.

HST 365 Civil War and Reconstruction Era (3)
Origins and growth of sectionalism with emphasis on the period after 1850, secession and Civil War, Federal and Confederate governments, Reconstruction, and foreign issues. Cross-listed with BWS 365.

HST 366 American Imperialism (3)
A history of the causes, functioning, and impact of American imperialism, as a demonstrated by pertinent examples and episodes from the 18th to the 21st centuries. Offered infrequently.

HST 367 The United States in the 1960s (3) MPT
Examines political, social, and cultural changes in the United States in the turbulent decade of the 1960s. Describes the consensus that existed in the 1950s, and then explores such topics as the civil rights

movement, the women's movement, expansion of the welfare state, war in Vietnam, and the growth of a counterculture. Cross-listed with AMS 367.

HST 368 United States from Progressive Era to Great Depression (3)
Social, cultural, economic, and political developments associated with transformations of United States life and culture, 1890-1930

HST 369 United States in the Modern Era (3) MPT
Social, cultural, economic, and political developments in the United States from the New Deal to the present.

HST 371 Native American History to 1840 (3)
American Indian history from the period before European contact through the removal era of the 1830s and 1840s.

HST 372 Native American History Since 1840 (3)
American Indian history from 1840 through the twentieth century and into the present.

HST 373 Transforming America 1815-1850 (3)
Explores a period characterized by geographical expansion, major reform movements, rapid changes in politics and technology, war with Mexico, economic transformation, and the debate over slavery. Cross-listed with AMS.

HST 374 History of the Russian Empire (3) MPT
Key issues in Russian history, particularly the rise, growth, and stagnation of the vast multinational and multiconfessional Russian empire, the influence of other empires on Russia, the governance of vast territories, and the development of Russian imperial and national identities.

HST 375 The Soviet Union and Beyond (3) MPT
Central problems and controversies in Russian history since 1917, among them: what produced the 1917 Revolution; how communism developed and collapsed; how Soviet citizens experienced communism; how Russian history changed after communism's collapse in 1991.

HST 378 20th Century Eastern European History (3)
Study of nationalism and struggle for independence in Eastern Europe, establishment of independent states after World War I, and return to foreign domination under the Nazis and the Soviets. Offered infrequently.

HST 379 U.S. Consumerism, 1890-Present (3)
Examines the history of mass consumerism in North American society, including the rise of mass production and the mechanisms that have made mass-produced goods available to American and global markets. Cross-listed with AMS 379.

HST 381 Women in Pre-Industrial Europe (3) MPT
Survey of the history of women's lives and roles in Western society from the beginning of the Middle Ages to the eve of the Industrial Revolution. Emphasis on determining women's experiences and actual roles as compared to the cultural and legal image presented and on examining effects of historical trends on women's lives. Cross-listed with WMS 381. Offered infrequently.

HST 382 Women in American History (3) MPT
Survey of the history of women's lives and roles in American society from colonial period to present. Emphasis on examining women's individual and collective roles in private and public spheres and on exploring how specific economic and political transformations have affected women's lives. Cross-listed with AMS and WMS 382.

HST 383 Women in Chinese History (3) MPT
Survey of women's roles in the family and in political, economic, religious, and cultural lives of China from prehistory to the present. Various views about women in Chinese male-dominated society and development of feminist thought are discussed.

HST 384 Contemporary Women's World History (3)
Contemporary history of women around the world, with particular emphasis on Africa, Asia, Latin America and the Caribbean, and the Middle East. Cross-listed with WMS 384.

HST 386 Race in U.S. Society (3)
Examines the historical contexts within which major transformations in racial practices and policies have taken place and analyzes racialized customs and behaviors in the United States across time and place. Cross-listed with BWS 386.

HST 387 U.S. Constitutional Development to 1865 (3)
Development of state rights and nationalism from the framing of the Federal Constitution to 1865.

HST 388 U.S. Constitutional Development Since 1865 (3)
Constitutional development since 1865 during wars and depressions and in conservative, reform, and liberal eras, with modern problems considered.

HST 389 Great Issues in American History: Rhetoric and Reality (3) MPT
Examines historical evolution of enduring issues in the development of the U.S., primarily by examining the way these issues have been argued at various times in our national history. Issues treated include the rights of blacks, the rights of women, and war-making rights. Cross-listed with COM 389.

HST 391 U.S. Presidential Biography (3)
Biographical history of American presidents. Individual lives and actions viewed in their family, educational, social, economic, gender, political, institutional, and intellectual contexts. American political and cultural history examined from the perspective of achievements, failures, and impact of these significant political actors upon history, culture, and institutions. Offered infrequently.

HST 392 Sex and Gender in American Culture (3) MPT
Examination of change over time in the construction of sexual norms, attitudes, and behaviors in American culture, as well as of gender roles. Covers the period just prior to the Indian-European encounter through the present. Cross-listed with AMS 392.

HST 395 The American South to 1877 (3)
History of culture, society, and politics of the American South from 18th century to the end of reconstruction. Cross-listed with BWS 395. Offered infrequently.

HST 396 The American South Since 1877 (3)
Intensive study of the region since reconstruction. Expansion of cotton culture and industrialization; age of segregation; white and black cultures; modernization; desegregation. Cross-listed with AMS and BWS 396. Offered infrequently.

HST 397 American Environmental History (3)
Introduction to human-natural environment relationships in English North America and the United States, ca. 1600 to present. Chronological and regional approach with emphasis upon political economy and the American conservationist/ environmentalist movement. Cross-listed with AMS 397 and WST 397.

HST 398 20th-Century World History (3)
World history from the era of World War I to the present. Comparative and international history. Emphasis on nationalism and internationalism in politics, economics, and culture. Students taking this course may not earn credit for HST 296. Offered infrequently.

HST 400 Senior Capstone in History (3; maximum 6) MPC
Provides intensive reading, research, and writing in selected topics. Each topic focuses on a specific problem or issue presented for analysis. Though requirements vary with topic, each Capstone involves active participation, both orally and in writing. Topics and descriptions are published annually in the department's course-offerings booklet. Take Capstones that build upon other classes taken. Required of all history majors.

HST 410/510 Topics in Foreign Policy (3; maximum 12)
Topics in foreign policy history and international history. May be repeated when topic changes.

HST 415 Tradition in American Culture (3)
Examination of the role of history, memory, and tradition in American culture.

HST 431/531 The U.S.-Vietnam War (3) MPT
History of the U.S.-Vietnam war from its origins in World War II to its conclusion in 1975. Offered infrequently.

HST 428/528 Russia's War and Peace (3)
Discusses Russian history and culture in the Napoleonic era by using Leo Tolstoy's novel War and Peace as a guide.

HST 433/533 Oral Tradition: History and Practice (3)
Traces the use of oral tradition in historical writing and introduces theory and practice of oral history as a methodology basic to historical research. Offered infrequently. Cross-listed with AMS.

HST 434/534 China Along the Silk Road Before 1600 (3)
Examines the role the transcontinental Silk Road played in Chinese history, including the development of the Road, its role in China's foreign relations, the impact of foreign trade, and the spread of cultures and religions.

HST 435/535 Public History Practicum (3)
Combines classroom study and fieldwork in the community. Students examine the presentation of history to the public, curriculum and public institutions, and issues of public culture to develop projects that incorporate work with a local museum or historical society and a local classroom teacher. Cross-listed with AMS.

HST 436/536 Havighurst Colloquium (4)
Exploration of significant issues related to Russian and post communist affairs. Each semester focuses on a central theme or topic that is examined through presentations, readings, research, discussion, and writing. May be repeated once for credit with only 4 hours counting towards the history major.

HST 437/537 Latin America Environmental History (3)
Human and natural environment relationships in Latin America from first migrations to the present. Cross-listed with LAS 437.

HST 442/542 Ancient Jewish History (3)
Ancient history of the Jewish people from the Persian through the Greco-Roman periods (539 BCE-200 CE).

HST 444/544 Ancient Egypt (3)
History and culture of the ancient Egyptians and their interrelationships with various peoples of the ancient world, including the Nubians, the Libyans, the Greeks, and the Hebrews. Offered infrequently.

HST 450/550 Topics in Women's History (3; maximum 12) MPT
In-depth study of a selected topic in the history of women, focusing on either a specific period and place, or a theme. Cross-listed with WMS.

HST 451/551 Social History of Medieval Europe (3) MPT
Study of the society of medieval Europe. Emphasis on major groups (nobles, upper clergy, peasants, townspeople) -boundaries of their lives and changes in response to economic and political developments. Questions of gender roles and life stages discussed. Offered infrequently.

HST 452/552 Florence in the Time of the Republic, 1250-1550 (3) MPT
Few European city-states have aroused as much comment from contemporaries and historians as the Republic of Florence. Begins with the emergence of the popular commune (1250), continues through the crisis of the 14th century (plague, depression, workers' revolts), the Medici family domination, foreign invasions, and the fall of the republic. Special attention to the myth of the 'Renaissance' and Florence's role in the creation of that myth. Topics include: political theory, including Machiavelli's Prince and Discourses; banking and business; the definition of community through civic religion; families and clans; art and architecture; ritual behavior and the definition of people marginal to society.

HST 470/570 Topics in Russian History (3-4) MPT
Cross-listed with POL 440/540 and REL 470/570.

HST 471/571 The Age of Bismarck (3)
Survey of German political, social, and cultural history in 19th century. Offered infrequently.

HST 472/572 Germany 1918-1945 (3)
Adolf Hitler, the Weimar Republic, and the Third Reich, 1918-1945.

HST 475/575 Images of Russia at Home and Abroad, 16th Century to the Present (3) MPT
Examination of images of Russia presented at home and abroad in fiction, travelers' accounts, posters, and movies. Probes stereotypes of Russia and Russians and considers their implications for the way in which we think about other lands, for notions of 'totalitarianism,' for the Cold War and revolution, and for American politics. Offered infrequently.

HST 479/579 Tudor and Stuart England (3)
Examination of political, social, and economic continuity and change from late 15th century to early 18th century. Offered infrequently.

HST 480 Departmental Honors (1-6; maximum 6)
Departmental honors may be taken in one or more semesters of the student's senior year.

HST 487/587 Mexico Since 1810 (3)
Examination of colonial background; the war for independence; and political, economic, and social development to the present.

HST 494 India and Pakistan: The Dust of Empires (3)
A study of the background and history of South Asian geopolitics involving the twin states of India and Pakistan, including the making of Indo-Islamic India, its colonization by Europeans, and forces shaping post-colonial India and Pakistan.

HST 495/595 Modern African Environmental History (3)
Offers a multidisciplinary approach to the social, economic, and political aspects of environmental change in sub-Saharan Africa. Explores the utility of social science and historical analyses for understanding long-term changes in the region's environment. Concerned with the way the idea of development has been conceptualized and applied in the region in the last 100 or so years. Considers how Africans perceived and responded to environmental crises in the 20th century. Cross-listed with BWS. Offered infrequently.

HST 610 Studies in American History (1-12)

HST 620 Studies in Latin American History (1-12)

HST 630 Studies in European History (1-12)

HST 640 Studies in English History (1-12)

HST 650 Studies in World History (1-12)

HST 660 Studies in Asian History (1-12)

HST 670 Studies in African History (1-12)

HST 680 Studies in Ancient History (1-12)

HST 690 Studies in Medieval History (1-12)

HST 692 Archival Fundamentals (2)
Introduction to archival work as a profession, including arrangement, description, and preservation of archival materials; computers and reference work; copyright and public records laws.

HST 694 Methods in History Teaching at the College Level (1)
Required of graduate assistants with teaching responsibilities in the department. Sections are coordinated with courses in which students are involved as teachers or graders. Deals with the practical problems of teaching history at the college level. Offered on credit/no-credit basis.

HST 695 Graduate Teaching Practicum (3)
An internship under the direction of a faculty member combining practical experience and reflection on issues of undergraduate teaching. Open only to graduate students without assigned instructional responsibilities and by permission of the instructor.

HST 696 Graduate Internship in History (1-12; maximum 12)
For students with interest in careers in history outside the academy. Provides an opportunity to gain experience in other professional settings, such as archives or museums. To be arranged by the student, with the plan of work for credit approved by the director of graduate studies.

HST 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

HST 702 Research Seminar (3)
Development and presentation of an original piece of research, based on primary sources, in one's field of emphasis. Open to students in the second semester of their M.A. program.

HST 703 Doctoral Workshop (1-3; maximum 6)
Addresses current scholarly, pedagogical, and professional issues relevant to graduate training in History at the doctoral level. History PhD students are required to enroll for a total of six credit hours while they are in residence. Prerequisite: Doctoral student standing.

Colloquia in History

Reading and discussion of major works on selected topics. Any colloquium may be taken more than once if topic changes. Open to graduate students only.

HST 710 Colloquium in American History (3)

HST 720 Colloquium in European History (3)

HST 760 World History Theories (3)
Introduction to theories of world history.

HST 770 Colloquium in Gender and Comparative Women's History (3)

HST 780 Colloquium in World and Comparative History (3)

HST 790 Directed Study in History (1-16; maximum 24)

HST 793 Historical Methods (3)
Introduction for beginning graduate students to the practice of history.

HST 794 History and Theories (3)
Introduction to theories and models of the practice of history in the last century.

HST 840A College Teaching of the U.S. History Surveys

HST 840B College Teaching of the Western Civilization Surveys

HST 840C College Teaching of the World History Surveys (1; maximum 6)
Discussion of purposes, goals, and methods involved in teaching sections in history survey courses. Required of all graduate assistants and teaching associates in the history department. Summer only.

HST 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60 depending on departmental requirements)

HONORS COURSES (HON)

HON 181 Foundations of Engaged Learning (1-2)
Introduces students to the mission, requirements and portfolio review process of the University Honors Program. Sections vary in theme, yet all sections foster the development of inquiry, academic and leadership skills and personal reflection. This course is required for all first-year, first-semester students in the University Honors Program , and it is credit/no credit only.

HON 190 Introductory Honors Experience (0-2; maximum 10)
Students will have the opportunity to learn and practice authentic research, service and leadership tasks and activities designed by and under the careful supervision of a faculty, staff or other trained educator. These learning experiences may include (but are not limited to) undergraduate research programs, intensive introductory service-learning and community engagement programs, and substantive leadership experiences. The experience involves ongoing self-reflection. This course is credit/no credit only.

HON 281 Explorations into Engaged Learning (1-2; maximum 10)
Offers students in the University Honors Program an opportunity to conduct research and explore the theoretical implications of one predominant theme of the program. Themes include: leadership, inquiry and research, recruitment and marketing, community service, to name a few. Each section focuses on a separate theme.

HON 282 Explorations into Engaged Learning II (0-2, maximum 6)
The second portion of an optional two-course sequence for University Honors Program students. HON 282 focuses on developing leadership capacity in students. Each section focuses on a particular leadership theme, such as peer mentoring, marketing and recruitment, research and inquiry, community service and outdoor leadership. It enables students to apply the theoretical and conceptual knowledge gained in HON 281 to authentic inquiry projects related to the course theme. In this course, students have the opportunity to design and implement their own projects and initiatives that involve other members of the Miami or surrounding community. Prerequisite(s): the corresponding HON281 course (same modifier).

HON 290 Intermediate Honors Learning Experience (0-2; maximum 10)
Students will have the opportunity to practice authentic research, service and leadership tasks and methods using guided support. These learning experiences may include (but are not limited to) Honors seminars, undergraduate research programs, intensive service-learning and community engagement programs, and substantive leadership experiences such as serving as a peer mentor. This course is credit/no credit only.

HON 390 Advanced Honors Experience (0-2; maximum 10)
Students will have the opportunity to design and complete a major scholarly, leadership, teaching or service-oriented project with ongoing mentorship from an expert. These learning experiences may include (but are not limited to) designing and implementing curricula or a major co-curricular program, restructuring student organizations, or completing an article. The course involves ongoing self-reflection and is credit/no credit only.

INTERACTIVE MEDIA STUDIES COURSES (IMS - Arts and Science)

IMS 171 Humanities and Technology (3) MPF, MPT
Introduction to methods of thinking used in humanities disciplines (literature, history, philosophy, classics, etc.), computer technologies, and their relationship. Practical skills (web page making; research on the Internet) and analytical skills (how to tell good information from bad) combined with theories about the Information Society. IIB, CAS-B. Cross-listed with ENG 171.

IMS 201 Information Studies in the Digital Age (3) MPT
Explores what it means to be information literate in today's digital world. Students will not only learn about the latest technological advances but will also reflect on ethical and legal issues created by the information age. Intended for students wishing to become competent in the fields of Information Literacy and Information Technology. Course includes all aspects of the research process from the definition of the research problem to the acquisition and critical analysis of information, to the adaptation of that information for a digital environment.

IMS 211 Introduction to Game Studies (3)
Introduction to key historical and contemporary research in Game Studies, design and production.

IMS 212 The Design of Play (3)
An introduction to the many philosophies of ludology, the study and design of play.

IMS 222 Interaction Design (3)
This course is an opportunity to investigate interactive design as it relates to a variety media types. Using industry standard tools, students will learn to design, implement and refine interactive media for specific audiences. For the purpose of this class, interactive media includes websites, menu systems, and the variety of software and hardware solutions that intersect the domain of human-computer interaction.

Effective interactive design is often achieved by the creative application of sometimes disparate disciplines. Students should expect to incorporate their understanding of art theory, psychology, commercial business practice and creative problem solving.

IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)
Students will analyze and produce digital multimodal compositions that integrate words, images, and sounds. No prior web or digital writing experience required. Cross-listed ENG.

IMS 225 Games and Learning (3)
Surveys and assess the role of gaming within educational research. Topics covered include: games and literacy, designing games for schools, and the learning implications of gaming culture. Cross-listed with EDP 225.

IMS 238 Narrative and Digital Technology (3) MPT
Applies to digital games those notions about narrative structure and character development that have evolved in literature. Students will explore digital art as literary critics, asking whether games are ¿art¿ and analyzing how postmodern literary/digital art participates in globalization. Students compose narratives in writing as well as 3D graphics. Cross-listed with ENG 238.

IMS 259 Aesthetics and Computation (3)
Explores computation as aesthetic medium, examining subject matter from historical, conceptual and technical perspectives. Utilizing Processing programming environment, students develop basic programming literacy. Processing language semantics and syntax, and graphics programming are covered. Prerequisite: Working knowledge of either the Macintosh or PC computer or some exposure to any desktop publishing or computer graphics software. Cross-listed with ART.

IMS 303 Online Journalism (3)
Theory and practice of online journalism. Topics include current forms and social impact of online news, and the creative potential of the Internet as a news medium. Students will also develop online multimedia news projects. Prerequisite: JRN 202. Cross-listed with JRN 303.

IMS 310 Usability and Digital Media Design (4)
Explores important concepts in human-computer interaction (HCI) theory and usability with a marketing perspective. Students practice using cutting-edge technologies to measure the effectiveness of

digital media environment designs and develop their own digital media projects. No prior programming experience is required, but some exposure to desktop publishing or computer graphics software is strongly recommended.

IMS 319 Foundations in Digital 3-D Modeling and Animation (3) MPT
Provides both knowledge in the underlying concepts and practical skills in the design and development of computer generated 3-D imagery.

IMS 330 Professional Practice (0)
Zero credit hours represents a supervised internship in interactive media. Approval by the department chair of IMS or MIS is required to enroll.

IMS 333 e-Enterprising (3) MPT
Focuses on building new interactive/digital ventures, venture capital, and private equity with respect to networking technologies in both existing and emerging industries based on opportunity and assembling the resources required.

IMS 340 Internship (1-3; maximum of 6)
For credit internships/ pre-professional practical experiences for qualified students. Cross-listed with ART 340.

IMS 355 Principles and Practices of Managing Interactive Projects (3)
Students will prepare themselves for life beyond Miami by learning about leadership, client management, digital project organization, and team work. This course teaches lightweight methods of running an interactive project of any kind, allowing the student to apply what he/she learn through actual project-management and team work. Emphasizing the latest Agile project management techniques, the course teaches how to manage complex interactive media projects using a leadership philosophy that encourages teamwork, self-organization and accountability.

IMS 356 Interactive Animation (3) MPT
Moving beyond static HTML, exploration of web-based animation, motion design, video and interactive programming, using the Flash development. Prerequisite(s): Experience with a raster-based imaging application such as Adobe PhotoShop, as well as a vector-based application such as Adobe Illustrator or Freehand software. Basic HTML/CSS skills recommended.

IMS 359 Interactive Programming with ActionScript (3)
Presents an introduction to Macromedia Flash's ActionScript programming language. Designed as a multi-disciplinary creative programming course. Fundamental ActionScript programming concepts covered, including language syntax and semantics, the Flash development environment, basic 2-D graphics programming, and introduction to object-oriented programming. Through a series of lectures, hands-on practice, and group critiques, engaging programming examples will be explored. Prerequisite(s): Working knowledge of either the Macintosh or PC computer or some exposure to any desktop publishing or computer graphics software. Cross-listed with ART.

IMS 390 Special Topics in Interactive Media Studies (3; 6 maximum)
This course offers a rotating series of topics to meet the changing needs and interest of students and faculty, specifically focusing on the varying applications and theories of interactive media. Though designed for those who live in a world of digital media, this course does not teach mechanical skills (PowerPoint, Fireworks, Flash, or Photoshop).

IMS 410 Digital Development Methods: Theory and Practice (4) MPT
Examines the tools and methodologies involved in the development and the management of the production of new media. Students study different development models in a real-world setting with a client project, consultatively producing an interactive solution.

IMS 440/540 Interactive Media Studies Practicum (4) MPC
Examines the tools and methodologies involved in creating and managing the production of new media. Students will study different development models in a real-world setting and work with a client in business or industry to consultatively produce an interactive solution. This course particularly focuses on two aspects of the client project: (1) the management of new media development, and (2) the processes that best develop the synergy of an interdisciplinary team working toward a shared goal and the tools of development. It will also emphasize project planning and management. While it may be the case that programmers need to know coding and graphic designers need to know vector graphics, the successful manager will know something about all of these tools, about how they work together, and about how to specialize in one of them. Cross-listed with COM 411. Prerequisite: Concurrent registration in IMS 410.

IMS 445 Game Design (3) MPT
Develops theoretical foundations, methods and skills in building 3-D gaming environments.

IMS 487 Game Prototyping, Pipeline and Production (3)
Students will learn how to create a contemporary computer game, applying standard techniques for creating art assets, communicating design and developing a playable demo.

INTERDISCIPLINARY COURSES (IDS-Taught by more than one department)

IDS 151 Diversity Seminar (1)
Seminars designed to enable students to take part in discussions involving difference, including those stemming from race, ethnicity, gender, religion, sexual orientation, physical ability, class and region. Seminar helps create an environment where students learn to engage the differences found on campus and in the world into which students graduate.

IDS 153 American and World Cultures Seminar (1)
Seminar designed to enable students to enhance knowledge and understanding of the contributions diversity makes in society. Students will learn about and reflect on the intersections of the social identities of gender, age, class, race, sexual orientation, ability, religion, and culture. Course involves attending a series of lectures by eminent scholars, followed by class discussion and critique of the scholarship and presentations.

IDS 155 Readings in The Michael J. Colligan Lecture Series (1)
Coincides with the lecture of The Michael J. Colligan History Project at Miami Hamilton. Students are required to attend all lectures in the current semester's Colligan Series and produce a series of short essays. Explores the nature and practice of historical enquiry, as well as the relevance of historical topics to contemporary life.

IDS 159 Strength Through Cultural Diversity (3) MPF
Helps students function effectively in an increasingly diverse global society. With culture defined as "the way we do things around here," conflict is viewed as a natural result of interactions among people. Emphasis on applying the concepts of culture to a variety of countries and to subcultures of the U.S. so that students learn how conflict arises and how negotiation skills can be used to manage conflict.

INTERNATIONAL STUDIES COURSES (ITS-Arts and Science)

ITS 141L European Cities in Cultural Context/Luxembourg (1)
Deals with certain key European cities and considers for each its place in history, its development, the remaining landmarks of important events in the past, architectural and artistic masterpieces, important persons who lived there (statesmen, philosophers, musicians, etc.) and their contribution. Considers the present significance of the city in economic, political and cultural terms, as appropriate.

ITS 142L Great European Cities (1)
This course introduces students to the historic and cultural evolution of Europe from its ancient past to its contemporary process of economic and political integration. Students will be exposed to the multifaceted aspect of the present European mosaic and the search for a European identity.

ITS 201 Introduction to International Studies (3) MPF, MPT
Integration of core disciplines comprising international studies, with analysis of major world regions and issues. Recommended for freshmen and sophomores. IIC, IIIB, Cul, H. CAS-C.

ITS 201M Introduction to International Studies (3) MPF
Integration of core disciplines comprising international studies, with analysis of major world regions and issues. Recommended for freshmen and sophomore ITS majors. IIC, IIIB, Cul, H. CAS-C. Open to ITS majors only.

ITS 208 The Rise of Industrialism in East Asia (3) MPF
Introduction to historic parameters, geographic variables, state policies, and sociocultural contexts of industrialism in East Asia

(China, Japan, Korea, Taiwan, Hong Kong, and Singapore). Cross-listed with GEO, HST, POL, and SOC 208. IIC, Cul, H.

ITS 290 Research Strategies for International Studies (1)
Basics of library research for international studies including evaluation of sources, development of search strategies, usage of data and evidence. Prerequisite: ITS 201. Offered infrequently.

ITS 301 Intercultural Relations (3) MPT
This course bridges ITS 201 and the senior capstone, ITS 402, within the ITS major. Development of cultural awareness; in-depth study of theory and field-based research on the cross-cultural dynamics of cross-national encounters, trends, and events. Cross-listed with ATH 301. CAS-C.

ITS 302 Problems of Non-Western Societies (3)
This course bridges the introductory ITS 201 course and the senior capstone, ITS 402, within the ITS major. Examines a series of problems faced by developing societies. Topics include theories of national independence, technology, post-colonial hardships, and the role of the U.S. Prerequisite: ITS 201.

ITS 340 Internships (1-12; maximum 16)
Supervised work experience in government agencies, public service organizations, and appropriate commercial and financial institutions. Prerequisite: at least sophomore standing in ITS; permission of instructor and director required. Offered on credit/no-credit basis only.

ITS 365 Applied Topics in International Studies (3)
This course bridges the introductory ITS 201 course and the senior capstone within the ITS major. Students examine a series of cases about applied topics in global issues today. Students evaluate the cases from an interdisciplinary perspective and from the point of view of a policy analyst or participant. Examples of topics include global trade, human rights, UN decision making, veiling in Islam, and dictatorship. Prerequisite: ITS 201.

ITS 390 Special Topics in International Studies (1)
Presentations and discussion of current international events. Students read the newspaper daily and reflect on global developments in human rights. Offered credit/no credit only.

ITS 402 Senior Capstone in International Studies (3) MPC
Examination of approaches and diverse human relationships that comprise the field of international studies, with participants writing a group-project policy report. Prerequisite: international studies major with senior standing or permission of instructor.

ITALIAN COURSES (ITL-Arts and Science; Department of French and Italian)

ITL 101/102 Beginner's Course (4, 4)
Objective: to develop the four language skills of oral comprehension, speaking, reading, and writing. Prerequisite for 102: ITL 101 or equivalent.

ITL 105W Intensive Elementary Italian (8)
Intensive course, offered only in summer abroad, covers work normally included in 101, 102. Allows student to take a full year's work in less than eight weeks, 15 hours per week.

Advanced Italian Courses

ITL 201/202 Second Year Italian (3, 3)
Review of grammar, writing skills, and augmentation of vocabulary and idiomatic expression, and an introduction to critical reading. Prerequisite: (201) ITL 102 or 105 or equivalent; (202) ITL 201. CAS-A.

ITL 205W Intensive Intermediate Italian (8)
Intensive course, offered only in summer abroad, covers work normally included in 201, 202, plus structured conversation. Allows student to take a full year's work in less than eight weeks, 15 hours per week. Prerequisite: ITL 102 or 105 or equivalent. CAS-A.

ITL 221 Italy, Matrix of Civilization (3) MPF
An investigation of Italian contributions to civilization through recorded history, from the cultures of the Etruscans and the Romans to contemporary Italians, taking into consideration the Italian peninsula's geography and history, the artistic outpouring of the Renaissance, the scientific revolution, opera, literature, cinema, emigration and immigration, and Italy's multi-ethnic future. Taught in English. No prerequisites. Offered once a year. IIB, Cul, H. CAS-B

ITL 222 Italian American Culture (3) MPF
A survey and investigation of the history of Italian immigration in America, the development of Italian American communities across the land, and the contributions that Italian Americans have made to American society and culture. Taught in English. No prerequisites. Offered once a year. Cross-listed with AMS and FST. IIB, Cul, H. CAS-B.

ITL 262 Italian Cinema (3) MPT
Discussion and analysis of major movies and trends in Italian cinema. Topics may vary but attention is given to social and ideological implications of Italian cinema and the way movies produce a critique of cultural mores. Taught in English. No prerequisites. Offered once a year. Cross-listed with FST 262. CAS-B-LIT.

ITL 301/302 Introduction to Italian Literature (3, 3)
Techniques for critical reading in three major genres of drama, poetry, and prose with emphasis on classical literature in 301 and contemporary literature in 302. Prerequisite: ITL 202 or 205 or equivalent. CAS-B-LIT.

ITL 305W Intensive Advanced Italian (8)
Students perfect their ability in the four language skills through practice in oral and written composition and are introduced to various aspects of Italian culture including literature, art, music, history, politics, etc., through lectures, reading, and discussion. Offered only in summer abroad. Prerequisite: ITL 202 or 205 or equivalent. CAS-A

ITL 364 From Marco Polo to Machiavelli (3) MPT
Examination of Classical and Asian influences in Italian culture from the Middle Ages through the Renaissance. Works of Marco Polo, Dante, Petrarca, Boccaccio, the Italian Humanists, and Renaissance artists and writers, such Leonardo da Vinci, Michelangelo, Ariosto, Castiglione, and Machiavelli, including women poets, such as Vittoria Colonna, Gaspara Stampa, and Veronica Franco, are read and discussed against the historical background of Mediterranean trade and culture from the 13th through the 16th century, when the Italian peninsula was a crossroads between Europe, Africa, and Asia. Taught in English. Cross-listed with ENG 364. Offered every two years. CAS-B-LIT.

ITL 401 Dante's Divine Comedy (3) MPT
Intensive examination of Dante's major work, *The Divine Comedy*, read in a bilingual edition. Lectures and discussion in English. No prerequisites. Offered every two years. Cross-listed with ENG 401. CAS-B-LIT.

ITL 410 Topics in Italian (3- 9)
Taught in Italian. Will focus on different topics in Italian literature and culture. Specific topics to be studied will be announced each time the course is offered. Students may take the course for credit up to three times, provided that the topic of each offering is different each time. All readings, discussions, and assignments will be in Italian. Prerequisites: ITL 202 or 205, or the equivalent (two years of university-level Italian), or permission from the instructor.

ITL 680 Independent Study (1 to 6)
Independent work in Italian literature or language.

ITL 680W Summer Language Institute In Italy (8)
Study Italian language and culture under optimum conditions in Italy, intensively, and without distraction from other courses. In one summer, students complete the material of one full academic year of language study. All classes are taught by the director and a staff of native Italian instructors. The institute is located in the beautiful Renaissance city of Urbino, home of a national art museum and the University of Urbino and within easy weekend distance of other centers of Italian culture.

JAPANESE COURSES (JPN-Arts and Science; Department of German, Russian, and East Asian Languages)

JPN 101 First Year Japanese (4)
Acquisition of the basic oral-aural skills of elementary Japanese as well as the reading and writing skills.

JPN 102 First Year Japanese (4)
Acquisition of the basic oral-aural skills of elementary Japanese as well as the reading and writing skills. Prerequisite: JPN 101 or equivalent.

JPN 105 Japanese for Travelers (1)
Introduction to the Japanese language with emphasis on speaking. Course covers a broad range of language functions, from introducing and describing oneself to asking directions and making requests. Also introduces students to everyday Japanese culture.

Advanced Japanese Courses

JPN 201 Second Year Japanese (3) MPT
Further development of the fundamental skills of speaking, listening, writing, and reading in Japanese. Prerequisite: JPN 102 or equivalent.

JPN 202 Second Year Japanese (3) MPT
Further development of the fundamental skills of speaking, listening, writing, and reading in Japanese. Prerequisite: JPN 201 or equivalent. CAS-A.

JPN 231 Japanese Tales of the Supernatural in English Translation (3) MPF
Focusing on the supernatural, this course examines major literary works chronologically, from Tale of Genji (ca. 1010), to contemporary films. IIB, Cul, H. CAS-B-LIT.

JPN 255 Drama in China and Japan in English Translation (3) MPF
Provides historical overview of major traditional dramatic art forms of China and Japan: Zaju, Kunqu, Peking Opera, Noh, Kyogen, Bunraku, and Kabuki. Critically treats and interprets theatrical conventions in each and attempts to clarify aesthetic significance. Cross-listed with CHI 255. IIB, Cul. CAS-B-LIT.

JPN 260 Topics in Japanese Literature in English Translation (3; maximum 9)
Treatment of selected works of Japanese literature that suggest a particular thematic problem, such as Death in Japanese Literature, Offered infrequently.

JPN 266 Survey of Japanese Cinema (3)
This course examines representative Japanese films from the movies of the immediate postwar era to the new wave of Japanese anime (animated films). Cross-listed with FST 266.

JPN 279 Buddhism and Culture: China and Japan (3) MPF
Deals with East Asia and time span of more than 15 centuries (from fourth through 20th). Provides historical overview of the development of Buddhism in China and Japan with a clear definition of theoretical framework of this religion. Investigates nature and extent of Buddhist influence on the imagination of intellectuals and lifestyle of the populace in general. All cultural phenomena, thematically treated, are interpreted with historical, social, economic, and institutional contexts, and in contrast to those of the West. Cross-listed with ART. IIB, H. CAS-B-LIT.

JPN 301 Third Year Japanese (3) MPT
Emphasis on advanced oral and written communication in Japanese, while learning about important concepts in modern Japanese society through reading and discussion. Prerequisite: JPN 202 or equivalent.

JPN 302 Third Year Japanese (3)
Emphasis on advanced oral and written communication in Japanese, while learning about important concepts in modern Japanese society through reading and discussion. Prerequisite: JPN 301 or equivalent.

JPN 381 Introduction to Japanese Linguistics (3)
Provides a deeper understanding of the characteristics of the Japanese language, using the framework of theoretical linguistics as an analytical tool. Prerequisite: JPN 102 or 102 in progress.

JPN 401 Japanese Culture and Society in Contemporary Texts (3)
Development of advanced command of Japanese in comprehension and production through written works and class discussion. Cultural, social, and psychological implications, literary works, contemporary articles, etc., will also be explored. Prerequisite: JPN 302 or equivalent.

JPN 402 Japanese Culture and Society in Contemporary Texts (3)
Development of advanced command of Japanese in comprehension and production through written works and class discussion. Cultural, social, and psychological implications, literary works, contemporary articles, etc., will also be explored. Prerequisite: JPN 401 or equivalent.

JOURNALISM COURSES (JRN-Arts and Science)

JRN 101 Introduction to Journalism (3) MPF
Introduces issues facing news media in a democratic society. These include ethics, law, and press performance in the context of news criticism and journalism history. Students explore several journalistic modes and a variety of careers in journalism. They learn critical news consumption and several basic writing styles. IIB. CAS-B-OTHER HUMANITIES.

JRN 201 Reporting and News Writing I (3)
Introduces basic news writing, news gathering, and interviewing. Emphasis on providing instruction and experience in writing for print and online forms. Prerequisite for all journalism writing and creative courses.

JRN 202 Reporting and News Writing II (3)
Refines media news writing skills acquired in JRN 201, with an emphasis on multiple-field reporting. Students produce cross-media content, working in broadcast and online forms. Prerequisite: JRN 201.

JRN 301 Journalism Law and Ethics (3)
Focuses on statutory and common law limitations on freedom of the press in America, and the legislative and judicial rationales for them. Considers ethical theories and their application to situations that journalists commonly encounter. Cross-listed with COM 301.

JRN 303 Online Journalism (3)
Theory and practice of online journalism. Topics include current forms and social impact of online news, and the creative potential of the Internet as a news medium. Students will also develop online multimedia news projects. Prerequisite: JRN 201. Cross-listed with IMS 303.

JRN 312 Public Affairs Reporting (3)
Focuses on reporting news generated in public forums, including city councils, school boards, and courts. Students cover breaking events (meetings, trials, etc.), then go beyond the vote/verdict to develop enterprise stories on underlying civic issues that affect people's lives. Prerequisite: JRN 202.

JRN 313 Advanced Electronic Journalism: Audio (3)
Applies audio production theories and techniques to gathering, editing, and presenting long-form and short-form news stories. Prerequisite: COM 211 and JRN 202, major status, or permission of instructor. Cross-listed with COM 313.

JRN 314 Advanced Electronic Journalism: Video (3)
Emphasizes application of video to all phases of the journalistic process, including news gathering, writing, and presentation. Prerequisite: COM 211 and JRN 202, major status, or permission of instructor. Cross-listed with COM 314.

JRN 316 Editing and Design (3)
Introduces students to the concepts and practices involved in presenting the news, with emphasis on journalistic storytelling through combining words and images. Topics include editing, design and visual storytelling. Prerequisite: JRN 201.

JRN 318 Advanced Storytelling in Journalism (3)
The art and craft of telling in-depth stories that inform, engage, compel, and entertain. These techniques involve reporting and writing alike, and they can be put to use in magazines, newspapers, books, websites, documentary film, and multimedia formats. Prerequisite: JRN 201.

JRN 333 International Journalism (3)
Examines reporting from around the world, and evaluates and re-thinks the distinctly American vantage point and model of journalism by gaining exposure to broader treatment of international political, economic and cultural issues. Prerequisite: JRN 201.

JRN 340 Journalism Internship (1-16)
See Journalism Program Internship Coordinator for approval.

JRN 350 Specialized Journalism (3)
Rotating topics, including In-Depth Reporting, Business Reporting, Opinion Writing, Political Reporting, Spirts Reporting, and Narrative Nonfiction Writing. Students may count JRN 350 for up to 6 credits. Prerequisite: JRN 201

JRN 415 Practicum in Television Journalism (4)
Practicum experience in which students write, report, and produce a regularly scheduled television newscast aired on Oxford's cable television system. Participate in and evaluate all aspects of television news gathering and reporting process. Prerequisite: COM 211, 245, and either 314 or applied journalism experience. Cross-listed with COM 415.

JRN 418 Critical Writing in Journalism (3)
Theory and practice in reviewing books, stage productions, motion pictures, and concerts for mass media. Prerequisite: JRN 318.

JRN 421 Capstone in Journalism (3)
Integrating theory and practice of journalism; issues of law, ethics, and history as they pertain to journalism. Topics vary each year. Prerequisite: JRN 202 and senior standing.

JRN 426 Inside Washington (8)
Intensive study of the contemporary Washington community - government institutions, public officials, journalists, consultants, staff, and interest groups - through reading, lecture, on-site observations, expert presentations, discussion, research, writing, and internships. Program conducted in Washington, DC. Prerequisite: Permission of instructor. Cross-listed with COM 426/526, POL 426/526 and COM/POL 427.

JRN 427 Inside Washington Semester Experience (4)
Intensive study of the contemporary Washington community-government institutions, public officials, journalists, consultants, staff, and interest groups-through reading, lecture, onsite observations, expert presentations, discussion, research, and writing. Program conducted in Washington. Prerequisites(s): Permission of instructor. Concurrent course(s): COM/JRN/POL 453; COM/POL/JRN 377 or 477; COM/JRN/POL 340.

JRN 454 The Washington Community (3 to 4)
This course focuses on the Washington, D.C., as a complex political-social system that is both the seat of American democracy and a metropolis plagued with typical urban problems. In this class, students will complement their study of the formal political and media systems in the "Inside Washington" course by focusing on the development and behavior of constituent communities within the city of Washington.

KINESIOLOGY AND HEALTH COURSES (KNH-Education, Health and Society)

KNH 101 Introductory Food Science (3)
Composition, selection, and preparation of food products. Principles and techniques of preparation and storage. Includes lecture and lab.

KNH 102 Individual and Family Environments: Fundamentals of Nutrition (3)
Food nutrients, essentials of an adequate diet, relationship of food to physical well-being.

KNH 103 Introduction to the Profession of Dietetics (2)
An introductory course for students interested in Dietetics. Content will include the history, current practices and future trends in Dietetics. This course covers the practical application of principles from the integration of knowledge of food, nutrition, biochemistry, physiology, management and behavioral and social science. Students will explore career opportunities in Dietetics including an overview of the dietetic internship application process.

KNH 110 Dance (2)
Emphasis placed on beginning technique of each dance form.

KNH 110A Beginning Ballet (2)
Classical ballet technique. Work at the barre stressed.

KNH 110B Beginning Ballet II (2)
Extension of beginning classical ballet technique emphasizing work at the barre, center floor combination, correct placement, and form.

KNH 110G Modern Dance (2)
Technique stressed. Correct form and body placement along with flexibility and control covered.

KNH 110R Jazz (2)
Beginning technique emphasized with stress on isolation of body parts.

KNH 110S/T Social Dance (2)
KNH 110S- Men and KNH 110T- Women
Rhythms, steps, and positions of various ballroom dances, mixers, etc.

KNH 110U/110W Intermediate Social Dance (2)
KNH 110U-Men and KNH 110V-Women
This class focuses on advanced rhythms, steps, and positions for complex dances from around the world, emphasizing the difference between American and international styles. Students will perform the Foxtrot, Rumba and Tango, among others, and learn about the historical, social, and cultural practices associated with these dances. Students will be taught the correct etiquette of each dance and be required to attend 3 extra dances outside class time.
Prerequisite(s): KNH 110S or 110T.

KNH 116 Personal Wellness (1)
Introduction to the dimensions of Wellness Model. Promote and facilitate a holistic approach to living the Health Enhancement Lifestyle Management (HELM).

KNH 120A Aerobics (2)
Fitness program consisting of rhythmic activities to develop cardiovascular conditioning and flexibility.

KNH 120C Individual Exercise (2)
Programming to give students opportunity to develop strength, endurance, flexibility, coordination, and power by executing specific exercises and activities.

KNH 120E Self Defense (2)
Individual basic defense skills; awareness of necessary precautions.

KNH 120G Weight Training (2)
Introduction to fundamental principles of weight training. Includes selection and implementation of a weight training program and discussions of kinesiological and physiological principles as they relate to weight training.

KNH 120I Power Walking for Fitness (2)
This course introduces and develops the appropriate choices in making walking a core component within a healthy lifestyle.

KNH 120K Marathon Training (2)
This course introduces and develops the techniques to train and successfully complete a marathon.

KNH 120L Jogging for Health and Fitness (2)
This course introduces and develops the appropriate choices in making running a core component within a healthy lifestyle.

KNH 120M Triathlon Training (2)
This course introduces and develops the techniques to train and successfully complete a triathlon.

KNH 130A Archery (2)
Fundamentals of target shooting including use of bow sights.

KNH 130H Golf (2)
Basic golf skills, etiquette, and rules of the game.

KNH 130I Intermediate Golf (2)
Intermediate techniques and strategies for students who have mastered basic skills.

KNH 130K Racquetball (2)
Fundamental skills and knowledge of the game.

KNH 130M Tennis (2)
Basic strokes of tennis including forehand, backhand, serve, and game experience.

KNH 130N Intermediate Tennis (2)
Advanced techniques and strategies for students who have mastered basic skills.

KNH 130O Basic Ice Skating (2)
For students with little or no previous experience.

KNH 130P Intermediate Ice Skating (2)
Intermediate skills and techniques for students who have mastered fundamentals.

KNH 130S Precision Skating (2)
Skills, techniques, and mechanics of precision skating for students with previous ice experience. Offered infrequently.

KNH 130T Advanced Ice Skating (2)
Advanced techniques of skill in ice skating.

KNH 140A Basketball (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140B Power Volleyball (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140F Softball (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140H Ice Hockey (2)
Fundamental skills, rules, and strategy necessary for team play.

KNH 140J Soccer (2)
Fundamental skills, rules, and strategy necessary for team play. Offered infrequently.

KNH 140K Advanced Ice Hockey (2)
Advanced ice hockey theory and techniques for those with demonstrated skill and hockey background.

KNH 140M Broomball (2)
Introduction to basic broomball skills, for those who have never played, for those with limited experience, or with broomball experience, but no formal instruction.

KNH 150 Outdoor Pursuit Activities.
Includes leisure, recreational, and environmental pursuits. Instruction provided in basic skills, knowledge, and social behavior necessary for competent participation. Instruction at the Miami stables and other outdoor locations.

KNH 150A Beginning Canoeing (2)
This beginning canoeing course will focus on the essential skills and information that students need to travel safely and comfortably on flat and moving water. The course will cover history, canoe anatomy, clothing and equipment, paddling strokes and techniques, river reading/hazard identification, navigation, and minimizing environmental impact for boaters.

KNH 150B Beginning Backpacking (2)
This course will focus on the essential skills and information that backpackers need to travel safely and comfortably in the wilderness. The course will cover trip planning, equipment and usage, cooking and nutrition, minimal impact camping, trail technique, navigation, emergency procedures, and wilderness first aid.

KNH 150C Beginning Rock Climbing (2)
Introduction to beginning rock climbing that covers the terminology, equipment, technical and safety skills appropriate for the novice level climber.

KNH 150E Beginning Horseback Riding (2)
Introductory course to the fundamentals of horsemanship, basic horse care, and safety around equines.

KNH 150F Intermediate Horseback Riding (2)
Develops the fundamental skills of the western style of riding. Course explores equine anatomy, nutrition, and health care. Continues to focus on safety around equines.

KNH 150G Fundamentals of English Equitation (2)
Develops the fundamental skills of English equitation. Course explores equine anatomy, nutrition, and health care. Continues to focus on safety around equines.

KNH 150H Advanced Horseback Riding (2)
Explores advanced techniques and tradition in English Equitation. Course content focuses on advanced equine nutrition, anatomy, and physiology of the horse.

KNH 150I Advanced Western Horsemanship (2)
Explores advanced techniques and tradition in English Equitation. Course content focuses on advanced equine nutrition, anatomy, and physiology of the horse.

KNH 150J Beginning Fly Fishing (2)
This beginning fly fishing course will focus on the essential skills and information that novice fly fishers need to have a safe and ecologically friendly experience on trout streams and other fishable waters. The course will cover history, terminology, casting techniques, fishing tactics, fish biology, fly tying, essential knots, apparel, essential equipment, river ethics and river manners.

KNH 150K Intermediate Rock Climbing (2)
This course covers the terminology, equipment, technical and safety skills appropriate for the intermediate level climber. Students will have several opportunities to experience climbing and to put lecture, discussion, and reading materials into practice.

KNH 170A Swimming (2)
For students with little or no previous experience. Basic skills to meet requirements for American Red Cross beginners and advanced beginners certification.

KNH 170B Intermediate Swimming (2)
Basic swimming strokes, turns, diving, rescue skills, and personal safety skills; meets American Red Cross intermediate and swimmers requirements. Prerequisite: ability to swim 25 yards on stomach and back, and swim in deep water.

KNH 182 Introduction to Athletic Training (2)
Introductory course for potential athletic training majors and all declared pre-athletic training majors. Emphasis on athletic training profession and clinical components of the athletic training program at Miami.

KNH 183 Foundations of Athletic Training (3)
Introductory course in the principles of athletic training. Overviews basic techniques of athletic training. Prerequisite: KNH 182. Co-requisite: KNH 183.L

KNH 183L Foundations of Athletic Training Laboratory (1)
Introductory laboratory to develop and master taping, wrapping, and assessment skills necessary for entry-level certified athletic trainers. Prerequisite: KNH 182. Co-requisite: KNH 183.

KNH 184 Motor Skill Learning and Performance (3)
Introductory analysis of neurophysiological, biomechanical, and socio-behavioral factors that facilitate and inhibit acquisition, refinement, and retention of motor skills. Co-requisite: KNH 184L.

KNH 184L Motor Skill Learning and Performance Laboratory (1)
Laboratory portion of KNH 184. Co-requisite: KNH 184.

KNH 188 Exercise and Health (3) MPF, MPT
Critical examination of relationships among exercise, fitness, and health. Roles of physiological mechanisms that regulate health and exercise performance and genetic, sociocultural, economic, geographic, and political influences on relationships among exercise, fitness, and health are explored. IIC.

KNH 190 Professional Perspectives in Health and Physical Education (2)
Introductory analysis of the work of health and physical educators with special emphasis upon factors that facilitate and constrain effective instruction and exemplary programs. Includes 30 hours of introductory fieldwork in schools and agencies within urban, suburban, and rural settings.

KNH 194 Standard First Aid and CPR (2)
Meets requirements for American Red Cross Standard First Aid certification and Cardiopulmonary Resuscitation (CPR) certification. Prerequisite: sophomore standing or permission of instructor.

KNH 194L Standard First Aid and CPR Laboratory (1)
Laboratory portion of KNH 194. Co-requisite: KNH 194.

KNH 201 Meal Management (3)
Economic, aesthetic, and nutritional aspects of family meals; selection, preparation, and service. Families in different income levels considered. Includes lecture and lab. Prerequisite: KNH 101.

KNH 202 Introduction to and Integration of Kinesiology and Health (3)
This course is required of sport studies majors in KNH. The course introduces students to ways of thinking (cross-disciplinary, cross-textual, and critical-reflective) as well as to the ways that sub-fields in KNH are interrelated. Includes discussions of (a) what it means to study health and physical culture from a cross-disciplinary perspective; (b) what critical-reflective thinking is; and (c) multiple ways of knowing (physical, psychological, and socio-cultural perspectives of the human body and practices).

KNH 203 Nutrition in Disease Prevention Management (3)
This course is the study of nutrition in the relation to chronic disease prevention. The course will focus on the menu development for the institutional food service environment including hospitals, extended care facilities and schools. Basic culinary terms and techniques will be integrated into the lab portion of the course. Students will learn and practice management strategies while designing custom menus for specific health related populations. Economic and financial concepts will also be demonstrated and evaluated. Prerequisites: KNH 102, KNH 103, and KNH 104.

KNH 205 Drugs: A Health Perspective (3)
Examines historical, personal, and cultural bases for current patterns of drug use, misuse, and abuse, and identifies the short and long-term consequences associated with such patterns.

KNH 206 AIDS: Etiology, Prevalence, and Prevention (3) MPF
Analysis of personal and social aspects of AIDS, with special emphasis upon preventive behaviors and their education potential. IIC.

KNH 207 Serving and Supporting Children, Youth, and Families I (4) MPT
Introductory analysis of relationships among the conditions, characteristics, and capacities of children, youth, and families (especially those labeled 'at risk') and the institutional services and supports intended to improve their well-being. Emphasis placed upon question-finding in different contexts, especially the ways in which the knowledge we claim and the solutions we offer are dependent upon our analytical frames and language. Cross-listed with FSW 207.

KNH 208 Serving and Supporting Children, Youth, and Families II (5) MPT
Focuses upon children, youth, and families experiencing needs, problems, and crises. Today's institutional services and supports are analyzed and evaluated both in class and in educational, health, and social service agencies. Students 'shadow' helping professionals in these agencies during directed field experiences. Cross-listed with FSW 208.

KNH 216 Intermediate Modern Dance Technique and Performance (2; maximum 4)
An intermediate course in modern dance technique emphasizing correct form and performance skill. The students will explore technique and then apply this movement vocabulary to phrase building and performance components. Experimentation with movement concepts will eventually build toward analysis of skill and performance. Prerequisite: Permission of instructor.

KNH 232 Health Issues of Children and Youth (2)
Required for early childhood licensure, intervention specialist licensure, moderate and severe intervention licensure, and health education licensure; not open to nursing students. Includes strategies for preventing commonly occurring health problems. Addresses health needs of children including those with acute and chronic illnesses and disabilities. Analyzes impact of family, school, and community environments in promoting the health and well-being of children. Prerequisite: EDP 201 or FSW 281. Cross-listed with NSG 232. 2 Lec.

KNH 242 Personal Health (3) MPF
Variable course content based upon students' personal health problems and needs. Includes such topics as mental health, marriage and family, mood modifiers, nutrition, etc. Prerequisite: sophomore standing. IIC.

KNH 243 Women's Health Care: Problems and Practices (3)
Examines health and medical problems or concerns of women. Current controversial issues and misconceptions revealed in such topics as sexuality, rape, obstetrical and gynecological procedures, cancer detection and treatment, menopause, and psychotherapy. Women's health movement is introduced; health care delivery system scrutinized from the point of view of the female consumer. Cross-listed with WMS 243.

KNH 244 Functional Anatomy (3)
Study of the gross structures of the body with emphasis upon functional relationships among skeletal, nervous, and muscular systems. Includes fundamentals of biomechanics and principles of human motion applied to specific physical activities and daily life. Co-requisite: KNH 244L.

KNH 244L Functional Anatomy Laboratory (1)
Practical examination of musculoskeletal structures of the human body. Co-requisite: KNH 244.

KNH 245 Personal Health and Pedagogy for Early Childhood Teachers (3)
Focuses on two broad synergistic topics: personal health and well-being of teachers for five dimensions of health (mental, emotional, social, physical, and spiritual) and professional development of competencies for planning, implementing, and evaluating developmentally appropriate curricula and pedagogy for children in preschool through grade three. Required for early childhood licensure and health education licensure.

KNH 246 Elementary Physical Education (3)
The course will focus on physical education content and pedagogy for elementary programs. Content emphasis will be on movement concepts and skill themes appropriate for elementary students. Instructional techniques specific to elementary settings will be a major focus. Prerequisite: KNH 190.

KNH 247 Pedagogy Foundations in Health and Physical Education (3)
Introduction to knowledge and practice of selected organizational and technical skills for beginning teachers in health education, physical education, and exercise settings. Analysis of teaching-learning process with focus on use of technology in teaching and importance of adaptive environments for all learners. Includes 10 field hours of pedagogy. Prerequisite: KNH 190.

KNH 271 Lifeguarding (2)
Instruction in life saving techniques that meet American Red Cross life saving certificate requirements. Prerequisite: deep water swimming ability and 500-yard continuous swim.

KNH 274 Critical Perspectives on the Body (3)
Explores the ways in which the body is culturally created and shaped by socio-political concerns. The fields of exercise science, athletic training, health, nutrition, physical education, and sport will provide contexts to examine ideological influences on the body including those related to gender, race, class, ability, age, and sexuality.

KNH 276 The Meaning of Leisure (3) MPF
Introduction to the concept of leisure from historical, sociocultural, and personal perspectives. Role and meaning of leisure in society, as well as leisure's relationship to human development and well-being, explored through readings, films, lectures, class discussion, and personal experience. IIC, H. CAS-C.

KNH 279 African Americans in Sport (3) MPF
Socio-historical analysis of participation of African Americans in sport and society, and examination of the role sport has played in African Americans' integration into the larger society. Investigates the way the image of African Americans has been constructed and maintained through sporting practices. Sociological theories and concepts used to examine the impact of historical events, such as Reconstruction, black migration, and World Wars, on African American involvement in sport and other institutions. Cross-listed with BWS 279. IIC, H.

KNH 281 Early Childhood Physical Education (2)
Includes physical education and movement curriculum content designed for children ages three through eight emphasizing body awareness, dance, gymnastics, and basic manipulation skill progressions. The cooperative role of specialist and classroom teacher and integration across subjective matter are major emphases.

KNH 285 Evaluation and Assessment of Athletic Injuries to Neck, Head and Torso (2)
Specific assessment and evaluation techniques for dealing with athletic injuries and conditions to the neck, head, and torso. Common injury mechanisms and specific test for orthopedic injuries. Injury recognition, evaluation, and referral will be emphasized throughout the course. Co-requisite: KNH 285.L Prerequisites: KNH 183, 183.L, and 244.

KNH 285L Evaluation and Assessment of Athletic Injuries to the Neck, Head, and Torso Laboratory (1)
Sessions will provide students with opportunities to explore, practice, and master a variety of evaluation and assessment techniques under direct supervision of the course instructor. Co-requisite: KNH 285 Prerequisites: KNH 183, 183.L, and 244.

KNH 286A Practicum in Athletic Training I (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner. Prerequisites: PHS 182 and PHS 183

KNH 286B Practicum in Athletic Training II (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner. Prerequisite: KNH 286A.

KNH 286C Practicum in Athletic Training III (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner. Prerequisite: KNH 286B.

KNH 286D Practicum in Athletic Training IV (1)
Athletic training major course designed to develop clinical competencies in a directed progressive manner. Prerequisite: KNH 286C.

KNH 286E Practicum in Athletic Training V (1)
Didactic and psychomotor skill instruction of competencies and evaluation of proficiency skill in Athletic Training, which includes advanced athletic training room observation. Emphasis will be based on principles of the analytical skills used in the operational and administrative aspects of the various Athletic Training settings. Development of a professional vita and interviewing skills will also be highlighted. Prerequisite: KNH 286D, KNH 383.

KNH 286F Practicum in Athletic Training VI (1)
Didactic and psychomotor skill instruction of competencies and evaluation of proficiency skill in Athletic Training, which includes advanced athletic training room observation. Emphasis will be based on principles of the analytical skills used in the management of non-orthopaedic clinical pathology and special interest intervention. Preparation for the various segments of the BOC Certification Examination will also be highlighted. Prerequisite: KNH 286E, KNH 484.

KNH 287 Evaluation & Assessment of Athletic Injuries to Extremities (2)
Specific assessment and evaluation techniques for dealing with athletic injuries and conditions to the extremities. Common injury mechanisms and specific tests for orthopedic injuries to joints throughout the body. Injury recognition, evaluation and referral will be emphasized throughout the course. Prerequisite: KNH 183, KNH 183L, KNH 244. Co-requisite: KNH 287L.

KNH 287L Evaluation and Assessment of Athletic Injuries to the Extremities, Laboratory (1)
A laboratory course, to be taken concurrently with the Evaluation of Athletic Injuries, KNH 287 (3 credit hours). Sessions will provide students with opportunities to explore, practice and master a variety of evaluation and assessment techniques under the direct supervision of the course instructor.

KNH 288 Therapeutic Modalities (3)
A comprehensive study of the use of therapeutic agents for the treatment of athletic injuries. Emphasis will be placed upon the indications, contraindications, precautions, and physiological effects of electrical stimulation, ultrasound, cryokinetics, and pharmacology.

KNH 289 Therapeutic Exercise (3)
A comprehensive study of the application of manual therapy, neuromuscular re-education, movement and exercise as each relates to the varied and detailed goals of rehabilitation and re-conditioning for injured physically active individuals. Emphasis on pathologies and their relationship to therapeutic rehabilitation.

KNH 292 Dance, Culture, and Contexts (3) MPF, MPT
Critically explores relationships among signs, symbols, and images in dance and processes and effects of aesthetic ideology. Through large and small group discussions, video analyses of various dance styles and genres, critical writings and reflections, concert attendances, field observations, and creative movement and analytical experiences, students come to know that a critical analysis of how and what dance means constitutes a particular politics of sociocultural interpretation. Students also come to understand that the various ways in which interpretations are made are socially constructed and constituted in the attitudes, beliefs, and behaviors we hold and in our definition and treatment of ourselves and others. Cross-listed with BWS 292. IIB, H.

KNH 293 Fitness and Conditioning (3)
Analysis of training principles and conditioning strategies for individuals of all ages. Differences between sport-specific strategies and those for health-related fitness are emphasized. Prerequisites: KNH 190 and 246.

KNH 294 Games and Sport (3)
Focuses on educational progressions for games and sports with a focus on developing appropriate curriculum for grades three to 12. Prerequisite: KNH 246.

KNH 297 Children's Exercise and Fitness (3) MPT
Multidisciplinary, developmental study of the behavior of children in exercise, health, and motor skill performance contexts.

KNH 303 Food Systems Management (3)
Organization and management of food systems: study of the functions of management including human an physical resources, food service design and layout, production and fiscal controls, computer usage and labor guidelines. Prerequisites: KNH 102, KNH 103, KNH 104 and KNH 203.

KNH 305 Introduction to Food Systems Management (3)
Organization and management of food systems: study of principles involved in guiding human and physical resources into a dynamic food service organization. Prerequisite: KNH 201.

KNH 306 Quantity Food Production (3)
Observation, study, and participation in operating a food service unit. Prerequisite: KNH 101.

KNH 307 Food Systems Operation (3)
Principles of food service layout, concepts of computer usage, use of labor resources, and production and fiscal controls. Prerequisite: KNH 305.

KNH 316 Advanced Modern Dance Technique, Performance, and Composition (2; maximum 8)
An advanced course in modern dance technique emphasizing correct form, performance skill, and composition. The students will explore technique and then apply this movement vocabulary to phrase building and performance components. Experimentation with movement concepts will build toward solo and small group dance compositions and include an analysis of the process and the product. Prerequisite: Permission of instructor.

KNH 329 Psychological Perspectives on Health (3)
Examines psychological factors involved in health. Topics include appraisal of information concerning risks to health, effects of social comparison on the experience of illness, control processes and coping with illness, emotional and cognitive factors associated with physiological responses to stress, psychosocial factors that moderate stress, including social relationships, personality, and gender, and the processes involved in attitude and behavioral change with respect to health issues.

KNH 336 Coaching Techniques and Tactics (2)
Detailed study of sport fundamentals and teaching and coaching techniques. Elect from the following:
336A Basketball
336B Baseball
336C Soccer
336E Volleyball
336F Football
336G Track and Field/Cross Country
336I Softball

KNH 337 Foundations and Fitness Training for Coaches (3)
Overview of basic foundations of coaching applications in coaching philosophy, sport science, and sport management with in-depth analysis of sport physiology resulting in American Sport Education Program certification.

KNH 338 Psychosocial Aspects of Coaching (3)
In-depth analysis of theory and application techniques in sport psychology to provide understanding of appropriate coaching behavior and resulting in American Sport Education Program certification.

KNH 348 Teaching Physical Education II (4)
Analysis and implementation of selected curriculum models including planning lessons and units with emphasis on content development. Assessment and evaluation of teaching and program effectiveness included. Prerequisites: KNH PE major, KNH 247, 293, 294, 392, 393; must be enrolled in KNH 348F concurrently.

KNH 348F Physical Education Field Experience (3)
Supervised field experience to provide experience in field settings of the instructional, diagnostic, prescriptive, and evaluative processes of teaching physical education in elementary, middle, and high schools. Taken concurrently with KNH 348.

KNH 362 Health Promotion Foundations (3)
Describes the foundations of professional development in health promotion through multiple perspectives: health education, health communication, health science, and health behavior. Principles of design inform the diverse role of health promoters working within an ecological framework. Applications of models and theories are practiced in personal, national, and international contexts. Prerequisite: KNH 242 or 245 and junior standing.

KNH 367 Adapted Physical Education (2)
Individualized instructional approach applied to the study of exceptional students and their physical education needs. Organization and administration of adapted programs, knowledge, and skills related to selected handicaps/conditions, and application of learning in practical and field experience.

KNH 375 Psychological Perspectives in Sport and Exercise (3)
Examines antecedents and consequences of individual and group behavior in sport and exercise settings. Focuses on (a) effects of psychosocial factors on performance and participation in physical activity, and (b) effects of physical activity participation on personal growth and development.

KNH 378 Sport and Social Status (3)
Focuses on allocation and socialization. Emphasis upon power in social structure as evidenced in class, status, gender, and race relations.

KNH 381 Biodynamics of Human Performance (3)
Mechanics and neurophysiology of movement performance. Prerequisite: KNH 244. Co-requisite: KNH 381L Biodynamics of Human Performance Laboratory.

KNH 382 Fitness Assessment and Exercise Prescription (4)
Examination of various techniques used to assess fitness status and use of fitness evaluations to develop appropriate exercise prescriptions.

KNH 383 Operational and Administrative Aspects of Athletic Training (2)
Planning, implementation, and supervision of an athletic training program. Prerequisites: KNH 182 and KNH 183.

KNH 385 Contemporary Issues in Men's Health (3)
Focuses on health and medical problems of men. Examines interrelationships between dimensions of health, gender, morbidity, and mortality in men. Prerequisite: junior standing.

KNH 386 Health Promotion for Minority Populations (3)
Health disparities and positive health behaviors of African Americans/Blacks are examined. Development of culturally appropriate health promotion, health protection, and preventive services and strategies are discussed.

KNH 392 Lifetime and Adventure Activities (3)
Development of personal skills and teaching techniques for lifetime sports and adventure activities. Activities include tennis, golf, swimming, orienteering, ropes course, and hiking.

KNH 393 Performance Development and Analysis: Educational Gymnastics and Dance (3)
Explores elements of dance and gymnastics and provides basis for understanding the integrated and complementary nature of the two disciplines. Provides atmosphere where students will hone their own performance skills and discover methods for teaching and evaluating the skills of others. Prerequisite: KNH 246.

KNH 401/501 Advanced Food Science (4)
Application of experimental methods in preparation of food. Comparison and evaluation of food products in relation to acceptability and use. Includes lecture and lab. Prerequisites: KNH 101, minimum of eight hours in chemistry.

KNH 402 Critical Reflection on Practices in Health and Physical Culture (3) MPC
Engages collaborative groups of students and faculty in problem-based and/or community service-learning initiatives related to health and the culture of physical activity. Students work in teams to critically analyze a social need or problem, and develop a reflective action plan for the community based on that need. Prerequisite: Senior standing and completion of the KNH Undergraduate Core.

KNH 403 Professional Practices in Dietetics (3)
Study of principles of nutrition counseling, dietetic education, and ethics. Develops skills to practice dietetics in both clinical and informal settings for culturally diverse clients. Prerequisites: KNH 101 and KNH 102 and junior standing.

KNH 405/505 Advanced Nutrition (3)
Study of normal nutrition and physiologic function in the human. Emphasis on interpretation and use of dietary research data. Prerequisite: KNH 102 and minimum of six hours of chemistry.

KNH 406/506 Nutrition Therapy (4)
Fundamental principles of nutrition applied to the feeding of individuals and family in relation to health and disease. Prerequisite: KNH 102.

KNH 407/507 Food and Nutrition for the Aging (3) MPT
Discussion of foods and nutrition as applies to the aging human system. Discusses theories dealing with how humans age, the relationship of nutrients, diseases, and the health status of the elderly. Prerequisite: KNH 102 and junior standing.

KNH 408/508 Perinatal and Childhood Nutrition (3) MPT
Study of human nutrition needs from perinatal period through adolescent period. Prerequisite: KNH 102.

KNH 409/509 Nutrition for Sports and Fitness (3)
Study of the interrelationship between nutrition and physical fitness. Discussion of nutritional aspects for specific sports. Examination of nutrition research related to health enhancement and performance. Prerequisite: KNH 102.

KNH 415 Health Education for Children and Youth (3)
Focuses on multidisciplinary teaming in curriculum and program design for improving the health and well-being of youth. Emphasizes developmental health needs of adolescents through a wellness perspective (physical, social, emotional, mental, and spiritual). Includes systems theory and learner-centered strategies for multidiscipliinary connections across the curriculum including before-school and after-school programming. Required for middle school licensure and health education licensure.

KNH 419A Health Education Student Teaching (4-16; maximum 16)
Intern teaching in elementary, middle, and/or high school placements for eight weeks each with university support and school-based mentoring. Prerequisite(s): Senior standing, KNH 245, 415, and 362 and approval of application.

KNH 419P Physical Education Student Teaching (4-16;maximum 16)
Intern teaching in elementary and secondary placements for eight weeks each with school-based supervision and university support. Prerequisite(s): Senior standing, KNH 348 and 348F, and approval of application.

KNH 420 Field Experience (1-4; maximum 8)
Practice in field settings of instructional, diagnostic, prescriptive, and evaluative processes in physical education, health, sport studies, and athletic training. Prerequisite: departmental permission.
420A Athletic Training
420B Physical Education Enhancement
420C Sports Studies
420E Health Appraisal and Enhancement
420G Dietetics

KNH 432/532 Nutrition Across the Life Span (3)
This course follows the special nutrition needs of an individual throughout the lifespan. This course starts with a review of the specific assays and examinations to determine good nutrition health. The healthy adult is used as a starting point in the lifespan. The course highlights the special needs of pregnancy, infancy, young child, older child, "tweens and teens" and the adult. There are discussions on special considerations such as disordered eating, diabetes, obesity, athletes and performance nutrition. Finally there is nutrition for the aging and aged.

KNH 444/544 International Health: Global Perspectives (4)
Discusses health care systems comparing and contrasting health care in selected countries with the United States. Examples of model health programs in other countries will be discussed. Prerequisite: Junior standing or above. Concurrent course: KNH 445/545.

KNH 445/545 A European Perspective: Health, Social, Economic, and Political Impacts of Health Promotion (4)
Determinants of equity in health juxtaposed to the context of economic, social, and human development is discussed. Examples of effective health promotion and prevention programs in Europe and the research documenting the effectiveness of these programs will be discussed. Prerequisite: junior standing or above. Concurrent course: KNH 444/544.

KNH 450/550 Special Problems (1-4)
Prerequisite: permission of department chair.

KNH 453/553 Seminar in Kinesiology and Health (1-4)
Advanced study of current developments in technical and organizational aspects of activities within these fields. Prerequisite: junior or graduate standing.

KNH 462/562 Health Program Planning and Evaluation (3)
Introduction to current models of health education programming and the issues and trends therein. Provides knowledge and skills needed to plan, implement, and evaluate health education programs.

KNH 468/568 Physiology and Biophysics of Human Activity (3)
Critically examines the physiological processes and mechanisms thought to underlie the relationships between physical activity, exercise, and health. Co-requisite: KNH 468L. Prerequisite: junior or graduate standing.

KNH 468L/568L Physiology and Biophysics of Human Activity Laboratory (1)
Allows engagement in fundamental activities and skills involved in exercise physiology assessment. Co-requisite: KNH 468/568. Prerequisite: KNH 184, KNH 244 (for KNH 468), and Graduate standing for KNH 568.

KNH 471/571 Sport, Leisure, and Aging (4) MPT
Analysis of the relationship between development across the life span and leisure involvement. Prerequisite: junior or graduate standing.

KNH 472/572 Sport in Schools and Colleges (4)
Socio-historical analysis of competitive sport programs in secondary schools and colleges. Prerequisite: junior or graduate standing.

KNH 473 Children and Youth in Sport (3)
Influences on and consequences of the involvements of children and youth in sport. Prerequisite: junior standing.

KNH 474/574 Sport and Modernization (4)
Analysis of modernization of athletic activities and critical evaluation of modern sport's social structures and social relations. Prerequisite: junior or graduate standing.

KNH 475/575 Women, Gender Relations, and Sport (3)
Explores the meanings of women's participation in sport and physical activity using sociological, feminist, and cultural studies perspectives. Special consideration given to the ideological significance of sport in U.S. culture and ways in which sporting women accept and challenge contemporary gender relations. Cross-listed with WMS. Prerequisite: junior or graduate standing.

KNH 478/578 Mechanics of Musculoskeletal Injury (3)
Examines mechanism of injury from a mechanical perspective including basic biomechanics, development and adaptation processes of the human system.

KNH 482 Exercise Management of Chronic Disease (3)
Provides in-depth information about chronic diseases and disabilities that are commonplace and can be managed with exercise and physical activity. Content is directed towards understanding of specific physiological and pathophysiological characteristics associated with diseases and disabilities, its effect on exercise response and adaptation, the effects of commonly used medicines, and unique circumstances associated with specific diseases. Topics include: cardiovascular diseases, pulmonary diseases, metabolic diseases, immunological and hematological diseases, orthopedic diseases and disabilities, neuromuscular disorders, and cognitive, psychological, and sensory disorders.

KNH 484 Sport Injury Pathology and Emergency Procedures (2)
Techniques of physical appraisal of selected body systems and evaluation techniques for distinguishing normal from abnormal conditions, with special emphasis on athletic injuries and conditions. Prerequisites: KNH 285 and 287.

KNH 600 Independent Reading (1-4)
Prerequisite: permission of department chair and instructor.

KNH 610 Internship in Exercise, Health, and Sport Delivery Systems (1-4)
Supervised clinical experiences in sport and health agencies coupled with directed readings.

KNH 611 Behavioral Approaches to Health Promotion and Education (3)
Analysis of research and theory in health promotion, especially behavioral approaches to disease prevention.

KNH 612 Theoretical Foundations of Health Promotion and Education (3)
Focuses on the role of theory in shaping research and practice in health promotion and education. Includes a historical perspective to investigate the interaction between health education and applied social sciences.

KNH 613 Health Communication & Education (3)
Introduces health communication theory and processes for different audiences within the social ecological model. Explores evidence-based strategies when educating for health, including design analysis of health literacy and media literacy.

KNH 615 Knowledge Systems in Exercise, Sport, and Health Studies (4)
Analysis of frameworks for generation, organization, communication, and use of scientific and scholarly knowledge in health and physical education.

KNH 617 Education For Human Sexuality (3)
Reviews current information on biological and social aspects of human sexuality, specifically directed at graduate training for educators (i.e., school personnel, social service agencies, etc.). Differences in cultural background examined to provide an understanding of how cultural differences affect learning of meanings attached to behaviors involved in sexualities and how they impact pedagogy and class/group dynamics. Cross-listed with FSW 617. Offered infrequently.

KNH 620 Research Problems (1-4)
Prerequisite: permission of department chair and instructor.

KNH 621 Critical Perspectives on Knowledge Systems in the Exercise, Health, and Sport Studies Fields (2)
Course provides overview of ways in which scholarly knowledge in the exercise, health, and sport studies areas is generated, interpreted, communicated, and validated. Also provides overview of intellectual history/scholarly traditions in the field, and an introduction to the research process.

KNH 622 Quantitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
Course provides overview of the methodological procedures used by researchers in the exercise, health, and sport studies fields that adhere to a positivistic, quantitatively-based research approach. Course topics include research design, measurement issues, and basic statistical procedures. Prerequisites: Graduate Status and KNH 621.

KNH 623 Qualitative Methodological Research Approaches in the Exercise, Health, and Sport Studies Fields (2)
Course provides overview of the methodological procedures used by researchers in the exercise, health, and sport studies fields that adhere to an interpretive, qualitatively-based research approach. Course topics include research methods, data collection issues, and basic analysis procedures. Prerequisites: Graduate Status and KNH 621.

KNH 631 Physiological and Motoric Aspects of Sport (4)
Reviews theory and research in physiology and motor behavior to provide the basis for application and practice in sport.

KNH 632 Psychological Foundations of Sport (4)
Examines theory and research related to individual difference factors (e.g., anxiety, confidence, motivation, personality) that influence cognitions, affect, behavior and performance in sport.

KNH 633 Psychological Interventions in Sport (4)
Examines theory, research, and professional practice related to psychological interventions in sport. Focuses on the use of educational psychological interventions to facilitate personal development and performance of athletes by teaching them strategies and techniques to enhance mental skills.

KNH 634 Social Psychology of Sport and Exercise (3)
Examination and analysis of theory and research relating to social psychological factors and group dynamics affecting sport and exercise behavior.

KNH 654 Studies in Exercise Behavior (4)
Examines factors affecting exercise adherence, examines current theoretical positions underlying cognitive and behavioral strategies designed to motivate exercise adherence, and identifies major issues and research directions in exercise behavior.

KNH 668 Advanced Physiology and Biophysics of Human Activity (4)
Advanced level study of the physiological responses and adaptations to physical activity. Heavy emphasis is placed on the nature of control mechanisms and their integration across organ systems. Prerequisite: KNH 468/568 or its equivalent.

KNH 673 Developmental Perspectives on Youth Sport Participation (3)
A multidisciplinary developmental analysis of children and youth that focuses on the description and explanation of biological, psychological, and social aspects that relate to sport participation.

KNH 675 Socio-cultural Analysis of Sport I (4)
Analysis of socialization into and via sport feeder systems during the preprofessional stages.

KNH 676 Socio-Cultural Analysis of Sport II (4)
Analysis of work roles in sport as well as the career patterns and contingencies of professionals in sport.

KNH 681 Human Motor Control and Learning (4)
Study of the control of human movement focusing on variables that determine the proficiency of motor performance. Includes in-depth examination of the acquisition of skilled movements as a result of practice.

KNH 682 Laboratory Techniques in Exercise Science (2)
Laboratory-based class examining the various concepts specifically related to measurement and experimentation in exercise science.

KNH 683 Design and Evaluation of Individualized Fitness Programs (4)
Examination of research literature on fitness assessment and exercise prescription. Laboratory work includes technologies to assess fitness, use of knowledge gained in exercise prescriptions, and needs of special populations.

KNH 684 Advanced Seminar in Exercise Science (1)
Seminar/discussion based class examining the multidisciplinary research in the field of exercise science. There will be a presentation of a current research paper by a faculty member or graduate student followed by in-depth discussion of the presentation and the research paper.

KNH 685 Exercise, Age, and Health (3)
Examination of research on aspects of the relationship among exercise, health and selected disease processes.

KNH 688 Advanced Biomechanics (3)
Examines biomechanical concepts and applications using math, physics, and physiology. Focuses on the application of force to the human body and how the human body adapts/ reacts to these forces. Involves use of force plates, electromyography, and computer based motion analysis.

KNH 700 Thesis, M.A. (1-10; 4 required, 10 toward any degree)

KOREAN COURSES (KOR-Arts and Science)

KOR 101 Beginning Korean 1 (4)
Introductory course designed to prepare learners to speak, comprehend, read and write basic Korean. It begins with an introduction to the Korean language and culture. By the end of the semester students will be able to produce simple questions and statements involving learned materials.

KOR 102 Beginning Korean 2 (4)
Introductory course designed to prepare learners to speak, comprehend, read and write basic Korean. Cultural material will be integrated with language practice activities. Students will learn to talk about themselves and handle most basic social situations. Prerequisite: KOR 101 or permission of instructor.

KOR 201 Intermediate Korean 1 (3)
Focuses on vocabulary building and integrating the five language skills, i.e., listening, speaking, reading, writing, and culture. Students will learn to communicate in most daily life situations, using appropriate speech styles. Prerequisite: KOR 102 or equivalent.

KOR 202 Intermediate Korean 2 (3)
Class discussions will center on a variety of situations that one is likely to encounter while living in Korea. The course is taught mainly in Korean. Prerequisite: KOR 201 or permission of instructor. CAS-A.

LATIN AMERICAN STUDIES COURSES (LAS-Arts and Science)

LAS 204 Brazilian Culture Through Popular Music (3)
Through music, lyrics and rhythms this course raises questions about history, national identity, social, religious, and ethnic diversity in Brazil. Cross-listed with BWS/FST/MUS/POR 204.

LAS 207 Latin America before 1910 (3) MPF
Focuses on Latin America and the Caribbean before the twentieth century through broad historical survey emphasizing cultural, geographical, political, and social developments in colonial and pre-colonial Americas. IIC, Cul, H, CAS-B.

LAS 208 Introduction to Latin America (3) MPF, MPT, G
An interdisciplinary introduction to contemporary Latin America and the Caribbean through anthropology, art, geography, environment, film, history, literature, music, politics, sports and others. Cross-listed with ATH 206. IIC, IIIB, Cul, H, CAS-C.

LAS 217 Modern Latin American History (3)
Introduction to the major themes shaping Latin American history since independence, including US foreign policy; economic development; the discourses of race, ethnicity, class, and gender; cultural elements that either unite or distinguish Latin American countries. Cross-listed with HST.

LAS 254 Latino/a Literature and the Americas (3) MPF G
Study of literature by Cuban American, Puerto Rican, Central American, and Chicano/a writers, with an emphasis on political, social, and economic conflicts in the Americas. Specific study of writing in relation to ethnic identity formation and transnational communities. Cross-listed with ENG 254. IIB, IIIB, Cul. CAS-B-LIT.

LAS 260 Latin America in the United States (3) MPF G
Interdisciplinary examination of historical, social, economic, and cultural forces that have shaped the experience of peoples of Latin, Hispanic, Latino/a background in the United States. Cross-listed with HST 260 IIB, IIIB, Cul , H.

LAS 315 Latin American Diaspora: Communities, Conditions and Issues (3)
Study realities and challenges of Hispanic-Latino communities in Southwest Ohio in the context of transnational connections that link communities across the Americas. Incorporates service learning projects and community based research.

LAS 319 Revolution in Latin America (3)
History of modern Latin America through the experience of revolution in the 20th century. Focus on revolutionary experiences in four countries that had an enormous impact far beyond their borders: Mexico, Bolivia, Cuba, Nicaragua. Cross-listed with HST 319.

LAS 325 Identity, Race, Gender, Class (3) MPT
Develops conceptual tools and critical perspectives that enable students to better understand and analyze the processes through which identities are constructed and experienced. Learning activities facilitate analysis of individual identities as experienced through the life cycle and across diverse cultural and subcultural contexts, and build a systematic understanding of the processes and dynamics through which identities and identity groups develop and interact. Cross-listed with ATH, BWS and WMS 325.

LAS 410 Current Latin American Issues (3) MPC
Apply academic knowledge of Latin America to contemporary issues by reading works by scholars, authors and artists; attending lectures and performances; and engaging in critical analysis and debate.

LAS 412/512 Tropical Ecosystems of Costa Rica (5)
Introduces students to the structure and function of neotropical ecosystems, as well as to geological, biological, cultural, and economic forces affecting biodiversity in the tropics. This course is taught on-site in Costa Rica. There are additional costs beyond tuition. Cross-listed with GLG 412/512.

LAS 413/513 Tropical Marine Ecology (5) MPT
Investigates aquatic systems (estuaries, mangroves, coral reefs, seagrass beds, lagoons, beaches, intertidal zones, taxonomy of vertebrates and invertebrates of coral reefs, lagoons and tidal flats) paleobiology and global climate change (paleo-reconstruction of past lagoon environments, fossil coral reefs, and land use). Student research questions concerning biological and physical analyses of a select marine habitat are required. The course is taught on-site in the Florida Keys and the Bahamas. There are additional costs beyond tuition. Cross-listed with GLG 413/513 and IES 423/523.

LAS 414/514 Latin American Environmental Affairs (3) MPT
Focus on the issues of human relationships with the land in Latin America and the Caribbean. Emphasis placed on understanding indigenous cultures, colonial ecological exchanges, and the environmental implications of national development policies, and international efforts for protection of the environment. Cross-listed with IES.

LAS 415 Cuba in Revolution: Its History, Politics, and Culture (4) MPC
A history of Cuba from the 20th Century with emphasis on Cuban relations with other Latin American countries, the U.S. and Soviet Union. Examines economic, social, political and cultural issues with attention to race, class and gender. Priority given to LAS minors. Cross-listed with LAS and BWS.

LAS 416/516 Connections: Understanding Tropical Ecology and Natural History via Belize, Central America (5)
Intensive summer workshop exploring tropical ecology (terrestrial and marine) and human natural history in Belize, Central America. Emphasis is placed on habitat types and cultural use of different habitats. Environmental issues raised include the coexistence of human populations, agriculture, and natural habitats with normal diversity of native species. Cross-listed with IES/GEO.

Prerequisite(s): a college course in biology, environment concepts, or related topics.

LAS 437 Latin America Environmental History
Human modification of landscape, cultural perceptions of nature, and other challenges to the environment with an emphasis on the colonial and early national periods. Cross-listed with HST 437.

LAS 478 Media and Politics in Latin America and the Caribbean (3) MPC
Critical examination of the media's treatment of political events in Latin America and the Caribbean. Particular attention given to role of mainstream media in the U.S. for shaping perceptions of the region and individual countries within it.

LATIN LANGUAGE AND LITERATURE COURSES (LAT-Arts and Science; Department of Classics)

Note: LAT 101, 102 are not open for credit to students who have completed two or more units of high school Latin except with permission of chair, Department of Classics.

LAT 101/102 Beginning Latin (4, 4)
Essentials of Latin language including basic principles of grammar, acquisition of a basic vocabulary, and practice in reading and writing. (102) Continuation of LAT 101 culminating in readings selected from appropriate Latin authors. Prerequisite: (102) completion of LAT 101 or equivalent.

LAT 121 Review Latin (5)
Intensive review of basic Latin grammar with practice in reading and translation. Readings include Cicero's In Catalinam I (or another speech by Cicero) and selections from Catullus. Fulfills prerequisite for 202; should be taken if students feel that their previous preparation has not prepared them for 201. Prerequisite: at least two years of high school Latin or equivalent. Full credit toward graduation will not be awarded for LAT 121 if student earned credit in LAT 101, 102, and/or 201.

Advanced Latin Language and Literature Courses

Note: LAT 202 or its equivalent or permission of instructor is the prerequisite for all advanced courses 300 and above.

LAT 201 Representative Latin Authors (3)
Review of essentials of Latin grammar with immediate emphasis on reading. Readings selected from major figures in Latin poetry: recent offerings included Catullus, Ovid, Martial. Prerequisite: LAT 102 or two years of high school Latin.

LAT 202 Representative Latin Authors (3)
Reading and analysis of selections from such authors as Vergil and Cicero. Prerequisite: LAT 121 or 201 or three years of high school Latin. CAS-B-LIT or CAS-A (not both).

LAT 310 Special Topics in Latin Literature (3; maximum 12; may be repeated when content changes)
Study of selected authors or special topics in Latin literature. Prerequisite: LAT 202. CAS-B-LIT. Recent offerings included:

LAT 321 Latin Prose Composition and Syntax (3)
Intensive review of grammatical principles. Exercises in sight translation and exploration of the art of translation. Introduction to elementary prose composition. Prerequisite: LAT 202.

LAT 404 Medieval Latin (3)
Christian Latin literature from the fall of Rome to Renaissance. History, anecdote, drama, argument, lyric, pastoral, and satire verse. Special attention to the nature of medieval Latin and its relation to romance languages. Prerequisite: LAT 202. CAS-B-LIT. Offered infrequently.

LAT 410 Latin Seminar (3; maximum 12)
Intensive reading of a selected author or in a specific topic. Advanced reading level and comprehension are assumed. Individual research and reports required. Specific study of current scholarship. Prerequisite: one semester of Latin at 300 level or permission of instructor. CAS-B-LIT. Recent offerings included:

LAT 480 Independent Reading for Departmental Honors (3)
Reading centered upon a major topic of Roman literature and thought, normally culminating in an independent essay. Prerequisite: normally completion of LAT 201 through at least one semester at 400 level.

LAT 630 Graduate Work in the Latin Language (1-4; maximum 12)
Graduate standing and permission of department chair and instructor required

MANAGEMENT COURSES (MGT-Business)

MGT 111 Introduction to Business (3) MPF
Study of relationships between business and its environment, social responsibilities of business, and business management. Not open to business students above sophomore standing. IIC.

MGT 291 Introduction to Management & Leadership (3) MPT
Introduction to the importance of investing in human capital. Students are introduced to the theories and practices of how to attract, develop, and retain a competitive workforce. The goal of this course is to help students better understand, predict, and manage themselves and their work relations with others and with organizations, and to understand how organizations utilize this knowledge to design competitive management practices. Prerequisite: sophomore standing.

MGT 302 Introduction to Operations and Supply Chain Management (3) MPT
Identification, understanding, analysis, application, and measurement of basic issues encountered in the creation of goods and services for a given firm as well as the strategic and tactical relationships between firms that participate in an effective supply chain. Problems examined through use of cases, lectures, discussions, and computer-based approaches such as simulation, spreadsheets, and problem-solving software. Prerequisite: DSC 205, proficiency in spreadsheet use, and 58 earned hours or permission of instructor.

MGT 303 Human Resource Management (3)
Introduction to concepts, issues, and practices of modern human resource management and their impact on organizational effectiveness. Students develop a critical appreciation of the role human resource management plays in the dynamic environment in which organizations operate. Topics covered include human resource planning, recruitment, selection, training and career development, performance appraisal, compensation and benefits, employee and labor relations, and employee rights.

MGT 304 Cross Cultural Management (3)
This course is designed to familiarize students with the major concepts used in managing people in diverse environments, both internationally and domestically. In addition to learning about a variety of cultures, students can become more adept at thinking about issues from multiple perspectives. Prerequisite(s): MGT 291, MGT 303.

MGT 311 Project Management (3) MPT
Focuses on the fundamental aspects of managing complex projects, the central role of project management in organizations, the project life cycle, and techniques for project planning, scheduling and controlling using situations from technical disciplines. Cross-listed with EGM 311. Prerequisite: STA 368, DSC 205 or equivalent.

MGT 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/DSC/ECO/ESP/FIN/MIS/MKT 330.

MGT 381 Managerial Communication and Consulting (3)
Focuses on important communication and consulting skills. Topics include but are not limited to: Professional presentation skills, listening, interpersonal relationships at work, group facilitation, and consulting skills. Prerequisite: COM 135 and MGT 291.

MGT 402/502 Employment Law (3) MPT
Examines the growing body of law that governs the employment relationship. Students learn the rights and responsibilities of employers and employees by reading and discussing judicial decisions. Aims at improving students' ability to analyze legal questions and to identify the applications of the law for the practice

of human resource management. Prerequisite: MGT 303 or permission of instructor.

MGT 404/504 Compensation Management (3)
Explores design and evaluation of compensation programs that attract, retain, and motivate competent employees. Particular emphasis on job evaluation, performance appraisal, incentive wage systems, supplementary benefits, and international compensation. Prerequisite: MGT 303 or permission of instructor.

MGT 405/505 Labor Relations and Conflict Management (3)
Examines collective bargaining, employee involvement, organizational dispute resolution systems, and other means of ensuring participation and fair treatment in the workplace. Emphasis is given to understanding and practicing techniques for managing workplace conflicts, including mediation, negotiation, and arbitration. Prerequisite: MGT 303 or permission of instructor.

MGT 406/506 Staffing Organizations (3)
Presents complexities, challenges, and trade-offs associated with staffing decisions in organizations. Integrates theory with tools and methods, enabling effective translation of theory into practice. Major portion of the course devoted to applying ethical, legal, and psychological perspectives to contemporary staffing issues (e.g., recruiting, interviewing, selecting, evaluating, and terminating employees). Prerequisite: MGT 303 or permission of instructor.

MGT 414 Motivation and Work (3) MPT
In-depth examination of concepts, principles, and theories of motivation and their relationship to work behavior and work contexts. Historical and current perspectives are explored, emphasizing integration and application. Prerequisite: MGT 291.

MGT 415 Leadership and Learning (3) MPT
Investigates current leadership thinking and behavior in formal organizations as well as its relationship to power and decision-making in those settings. Emphasis on exploring theory, research, and applications of leadership in order to develop personal guidelines for exercising leadership in organizations. Impact of power and dependence of both leaders and followers is investigated as well as the particular relationship of leadership to decision-making in organizations. Prerequisite: MGT 291.

MGT 432/532 Purchasing and Materials Management (3)
Studies relating to materials management. Emphasis on negotiating, purchasing, receiving, storing and inventory control, value analysis, procurement information systems, and specialized problems in institutional procurement. Prerequisite: MGT 302 or permission of instructor. Offered first semester only.

MGT 451/551 Operations Planning and Scheduling (3)
Problems and solution methodologies associated with planning and scheduling of operations in a production or service environment. Prerequisite: MGT 302 or equivalent or permission of instructor. Graduate credit not available for Farmer Business School students. Offered first semester only.

MGT 453/553 Quality Management Systems (3) MPT
Study of techniques used to improve productivity of organizational resources. Topics include employee involvement, total quality management, group technology, cellular manufacturing, supplier development, and preventive maintenance. Prerequisite: MGT 302 or equivalent or permission of instructor. Offered first semester only.

MGT 457/557 Integrated Production/Operations Management Topics (3)
Integrates the various elements of operations management curriculum. As a Capstone course, casework and integrative projects are used to provide a decision-making framework. Prerequisite: MGT 451/551, 453/553; or permission of instructor. Offered second semester only.

MGT 463/563 Employee Benefits (3)
Provides a description of pension, group life and health, individual retirement, and other benefit plans. Discusses importance of these plans to achieving business and societal goals. Cross-listed with FIN 463/563. Prerequisite: FIN 301 or permission of instructor.

MGT 474 Human Capital Metrics (3)
Students will learn how to measure various aspects of an organization's human capital using a variety of tools enabling them to quantify the effect of human capital on organizational performance. Prerequisites: MGT 291, MGT 303 and senior standing

MGT 475 Organizational Change Management (3)
Final course for organizational behavior majors. Offers in-depth study of behavioral topics critical for success of contemporary organizations, including organizational theory, organizational design, organizational change and development, organizational culture, job stress, organizational conflict, and group dynamics. Extensive in-depth readings into selected topics and a major project form the basis of the course. Prerequisite(s): MGT 291, MGT 303 and senior standing.

MGT 490/590 Contemporary Issues (1-3; maximum 9)
Issues oriented seminar for seniors or graduate students; focuses on a significant contemporary topic in the management field. Prerequisite: senior or graduate standing and permission of instructor.

MGT 495 Strategic Management (3) MPC
Provides opportunity for students, at or near the conclusion of their undergraduate business curriculum, to integrate the concepts learned in the core courses and to bring together various disciplines to bear on the strategic issues facing any organization. Business problems are examined that simultaneously involve several functional areas, employ analysis methodologies from a variety of courses in marketing, organizational behavior, finance, accounting, statistics, law, operations and economics, and involve consequences that effect the entire organization. Prerequisite(s): FIN 301, 342, MGT 291, 302, MKT 291, senior standing, or permission of instructor.

MGT 498/598 Supply Chain Management (3)
Provides students with broad understanding of supply chain management. Covers primary activities required to manage supply chains effectively, how members of the supply chain are horizontally integrated, and processes for assessing performance and impact of supply chain management activities. Focuses on relationships between supply chain entities and behavioral issues that influence management of those issues. Students learn integrative tools for analyzing and evaluating alternative courses of action regarding supply chain management activities and functions. Prerequisites: MGT 432, MKT 431. Cross-listed with MKT 498/598.

MGT 601 MBA Operations Management Module (2)
Designed to provide an overview of essential operations management concepts, developing linkages between operations decisions and business success.

MGT 602 MBA Organizational Behavior Module (1)
Introduces the MBA student to concepts, theory, and decisions within organizational behavior. Topics included in the course include individual differences, leadership, motivation, organizational issues, and groups in work settings.

MGT 603 MBA Human Resource Management Module (1)
Introduces the MBA student to human resource management theory, concepts. Examines human resource management from its strategic implications and implications for the manager with regard to staffing, training, performance management, compensation, and international implications.

MGT 604 MBA Project Management Module (1)
Introduces the MBA student to project management theory and practice. Examines the decisions affecting project outcomes and the tools and techniques utilized to make those decisions.

MGT 615 Seminar in Managerial Skills (3)
Concerned with development of skills essential for effective exercise of management. Skills include, but not limited to the following: negotiation, conference leadership, decision-making, oral and written presentations, interpersonal skills, power, and persuasion.

MGT 617 Seminar In Organizational Behavior (3)
Major contemporary theories, research, and applications in organizational behavior are examined, including such topics as motivation, reward systems, social influence, leadership, group behavior, job design, and behavior measurement. Emphasis on development of a conceptual framework for analysis of behavioral systems.

MGT 620 Process Improvement Team Workshop (1)
Introduces fundamental tools and practices that help team members improve problem solving and work processes in quality teams, re-engineering teams, or other project team settings. Framework used is a quality improvement model that allows team processes and tools to be learned in a context that simulates a real business environment.

MGT 627 Supply Chain & Operations Management (3)
Broad study of production system that is part of all manufacturing and service organizations. Examines, in a variety of organizational settings, the process design, facilities deployment, materials

management, quality control problems, and supply chain management.

MGT 631 Strategic Management (3)
Capstone course examining process, structure, and context of strategic management. Emphasis is placed on developing a strategic perspective by integrating knowledge from various functional areas in the MBA program. To be taken during the last term of student's program.

MGT 644 Leadership, Change & Cross-Cultural Management (3)
Leadership, change, and cross-cultural management are pervasive factors for success in a complex global environment. This course addresses the interface among these three bodies of knowledge and practice because they play critical and related roles in managing a firm's strategic advantages. Prerequisite(s): MBA standing.

MGT 654 Strategic Human Resource Management (3)
Organizational leaders have responsibility for setting and implementing human resource strategy, which needs to be aligned with organizational strategy. Proper alignment is key to establishing a sustainable competitive advantage. Prerequisite(s): MBA Standing.

MGT 655 Productions and Operations Management (3)
Overview of classical planning and scheduling models as well as integrating concepts that evolved from the Theory of Constraints. Effect-Cause-Effect and evaporating clouds are used as decision-making techniques.

MGT 658 Negotiation and Conflict Management (1)
Provides MBA students with negotiation and conflict management theory. Through exercises students gain experience in resolving a variety of conflicts through negotiation. Negotiation situations covered will build from single party, single issues one-time interactions to multi-party, multi-issue, continuing relationships. Students become skilled in dispute resolution systems and learn to design such systems for use in their work lives.

MGT 667 Strategic Management (3)
This capstone course focuses on complex strategic questions facing 21st century managers. Students are required to integrate both MBA core course material and strategic management concepts as they debate solutions to these questions. Important emerging themes and issues are discussed.

MGT 681 Special Studies in Management (1-3; maximum 6)
Intensive reading or research in a selected field of advanced management. Prerequisite: graduate standing and permission of instructor.

MGT 700 Thesis (3-6)

MANAGEMENT INFORMATION SYSTEMS COURSES (MIS-Business; Department of Decision Sciences and Management Information Systems)

MIS 235 Information Technology and the Intelligent Enterprise (3) MPT
Focuses on the strategic role of information technology and systems. Topics include: Challenges faced by managers in firms, understanding key technologies and how they help meet these challenges, and the processes, policies and procedures needed to manage technical and digital assets. Prerequisites: BUS 101 and CSE 148 or successful completion of Farmer Business School skills exam.

MIS 245 Database Systems and Data Warehousing (3) MPT
Provides an understanding of the importance of database systems in organizations. The course focuses on database concepts, design methodologies, database management systems, structured query language, implementation of database systems, and data warehousing. Prerequisite: MIS 235.

MIS 281 Building Web-Based Business Applications I (3)
The course focuses on the use of software development environments to develop object-oriented, data-driven, Web-based applications. Special emphasis will be on the advantages and disadvantages of using development toolkits to integrate data retrieval, information presentation, and logic.

MIS 301 Data Communications in Business (3)
Introduces theory, concepts and applications of data and wireless communications technologies in a business environment. Introduces personal, local and wide area network architectures, standards, applications, security and management considerations. Prerequisite: MIS 235.

MIS 303 Enterprise Systems (3) MPT
An introduction to enterprise systems such as enterprise resource planning (ERP), Supply Chain and customer relationship management (CRM) systems. Both managerial and technological considerations in the implementation and use of these systems within businesses will be explored in depth. Prerequisite: MIS 235.

MIS 305 Information Technology, Risk Management, Security and Audit (3)
The foundations of information technology risk management, security, and assurance including the principles on which managerial strategy can be formulated and technical solutions can be selected. Prerequisites: MIS 235 or equivalent; ACC 221; or permission of instructor.

MIS 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/DSC/ECO/ESP/FIN/MGT/MKT 330.

MIS 385 Applications of Electronic Commerce Technology (3) MPT
Examines the critical business issues, technological infrastructure, and contemporary information systems applications required to carry out electronic commerce. Key interactions include business-to-business and business-to-consumer transactions. Prerequisite: MIS 235.

MIS 387 Designing Business Systems (3)
Introduces contemporary approaches for planning, evaluating, and acquiring business software applications such as development, outsourcing, and purchase. Provides an understanding of the business and development environment, the application lifecycle, methods, techniques, and tools used today. Co-requisite: MIS 245. Prerequisite: MIS 235.

MIS 403 Building Web-based Business Applications II (3)
A second course in the design and development of business applications delivered on a web platform. It follows the client-side oriented prerequisite MIS 281 and focuses on server-side technologies with web-enabled database driven e-business applications.

MIS 404 Business Intelligence and Knowledge Management (3) MPT
An introduction to the use of Business Intelligence and Knowledge Management in organizations, with emphasis on how information is gathered, stored, analyzed and used. Topics covered include business analytics, knowledge-based systems and data mining. Prerequisites: MIS 235, MIS 302

MIS 406 IT Project Management (3)
Information technology project management theories, techniques, and software tools are taught. Focus is on the problems and methods of conduction projects with special attention to modern information technology and software implementation projects. Prerequisites: MIS 302, MIS 387.

MIS 480 Topics in MIS (3-4)
Issues-oriented seminar focused upon significant emerging topics in the MIS field. Prerequisite determined by professor.

MIS 495 Managing the Intelligent Enterprise (3) MPC
Includes research, reading, writing, and discussion. Independent research on a topic and company from a management information systems (MIS) perspective. Respond to issues or problems raised in cases in an analytic and creative manner. Present topic report and research to class.

MIS 617 Computers and Management Information Systems (MIS) (3)
Provides accelerated review of important computer concepts and study of new computer technologies. Introduces basic management information and decision support system concepts, characteristics, and design. Addresses strategic use of technology and management responsibilities for planning, development, and operation of MIS. Prerequisite: MIS 235.

MIS 621 Enabling Technology Topics I (3)
Examines existing and emerging information technology (IT) within the organization. The foci of the course are the role IT plays in

business processes, the underlying theoretical basis for innovation through IT, methodologies for successful IT innovation, and infrastructure technologies commonly employed and why.

MIS 625 Management of Information Technology (3)
Offers rigorous study of information technology (IT) resources in organizations with an emphasis on electronic commerce technologies. The underlying theme of this course is strategic uses of IT by organizations for operating support, improving productivity, and gaining competitive advantage.

MIS 631 Enabling Technology Topics II (3)
Examines the rapidly emerging trend of integrating business processes across organizational boundaries. The course focus is on the technical issues that arise when integrating information across firms as well as current and emerging technologies and models to accomplish this integration.

MIS 673 Information Systems Analysis and Design (3)
Introduction to analysis, management, design, and development of information systems applications. Focus areas include problem/opportunity identification, information gathering, feasibility study, systems analysis, logical and physical design, software management, evaluation and selection, and computer assisted software engineering (CASE). Prerequisite: MIS 625.

MIS 674 Corporate Data Management (3)
Overview of data management concepts and technologies and how they fit into corporate information processing environment. Focus areas are corporate data resource management, database models, design and development of a database and application, and emerging database management systems (DBMS) technology. Prerequisite: MIS 617 or equivalent.

MIS 675 Contemporary MIS Topics (3)
Covers contemporary issues. Provides forum to study and research topics of high interest, concern, and potential impact on MIS. Topics can relate to policy, technology, hardware, software, or other MIS related topics. Requires student to select, research, and report on topics of current interest and importance within MIS area. Prerequisite: MIS 617 or equivalent.

MIS 682 IT Security and Assurance (3)
The foundations of information security and assurance including the principles on which managerial strategy can be formulated and technical solutions can be selected.

MIS 690 Advanced Management Information Systems (MIS) Topics (3)
Contemporary issues. Provides forum to study and research topics of high interest, concern, and potential impact on management information systems. Topics can relate to policy, technology, hardware, software, systems, or other MIS related topics. Requires each student to select, research, and report on topics of current interest and importance within the MIS area. Prerequisite: Permission of instructor. Offered infrequently.

MARKETING COURSES (MKT-Business)

MKT 291 Principles of Marketing (3) MPT
Factors involved in the management of the marketing function relative to product development, promotion, pricing, physical distribution, and determination of marketing objectives within the framework of the marketing system and in domestic and international markets. Prerequisite: ECO 201.

MKT 292 Careers In Marketing (2)
Survey course dealing with possible careers in marketing. Focus is on self assessment, building a resume portfolio and career objectives. Over half of the classes will involve practitioner panels and discussions. Credit/No Credit only.

MKT 301 Creativity, Innovation and Decision Making in Marketing (4)
The purpose of this course is to enhance students' abilities in the areas of creativity, innovation and decision making in the context of marketing situations. The processes of problem recognition, idea generation, problem solution, and implementation, will be combined with foundations of analytics and research to equip the students with the skill set on which successful organizations are built and compete to succeed. Prerequisite(s): MKT 291.

MKT 325 Consumer Behavior (4) MPT
An investigation into the science and art of understanding consumer behavior from a marketing perspective. This course is designed to help students develop an understanding of the skills, processes, concepts and theories necessary to generate useful consumer insights for products and services. Prerequisite: MKT 291.

MKT 330 Professional Practice (0-1;maximum 2)
Students participating in an internship program register for this course during the semester they are on work assignment. Prerequisite: Permission of departmental internship coordinator. For one hour of credit, a minimum of 55 hours and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ DSC/ECO/ESP/FIN/MGT/MIS 330.

MKT 335 Marketing Research (4) MPT
This course will help students to understand and practice the marketing research process and its role within the organization; integrate marketing theory and marketing research; improve their ability to find and intelligently use market information; practice using statistical quantitative tools. Prerequisites: DSC 205 or STA 261, MKT 291.

MKT 405 Creating Customer Value Through Marketing (3)
The nature of business has changed dramatically as competitive and other environmental factors have forced organizations to examine the "value" propositions" that they offer to their customers. Nowhere is this focus on value more evident than in customer service roles, particularly sales. Prerequisite(s): MKT 291.

MKT 415 Marketing to Organizations (4) MPT
Introduces the nature and functions of marketing between businesses and business/government in terms of structure, buyer behavior, processes, supply chain management, information flows and the marketing mix. Prerequisite: MKT 291.

MKT 419/519 eCommerce, Marketing, and the Internet (4) MPT
Survey course emphasizing a hands-on immersion into ECommerce; studies the impact this technology has on the basics of the marketing mix and effective and efficient marketing strategies. Focuses on applications, innovations, and future direction (not on the technology that enables the Internet and www). Heavy reading, electronic and in-class discussions, and 'surfing' required. Prerequisite: MKT 291.

MKT 425 Global Marketing (4)
This course will provide students with an overview and understanding of global marketing. This involves an analysis of world markets, their respective consumers and environments, and the marketing management required to meet the demands of constantly changing foreign markets. Prerequisite: MKT 291.

MKT 431/531 Logistics Management (3) MPT
Develops a framework for understanding all the firm's movement-storage activities necessary to provide products to customers where and when they are desired. Transportation, warehousing, inventory, order-processing, and handling activities are investigated in terms of their impact on customer service and total distribution cost. Prerequisite: DSC 205, MKT 291.

MKT 435 Branding and Integrated Marketing Communication (4) MPT
Theory and practice of brand equity management and integrated marketing communications. Topics include brand equity models, brand audits, brand equity leveraging and brand portfolio management. Significant emphasis is also placed on the theory and practice of integrated marketing communications. Prerequisite: MKT 291.

MKT 442 Highwire Brand Studio (4-8) MPC
Multidisciplinary practicum involving students from marketing, graphic design and other relevant majors. Three competing, multi-disciplinary student teams work for a semester on an actual client's current brandings and marketing communications challenge. Campaign solutions typically include primary research and market analysis, campaign strategy development and graphic design for advertising and other sales support materials. Incorporates contemporary technology and industry standard materials and research. Expertise and facilities of marketing, graphic design and other relevant majors are fully integrated within each team. Each campaign is formally presented to the client at the end of the semester. Prerequisite(s): MKT 435 or permission of instructor.

MKT 495 Marketing Strategy Practicum (4) MPC
This marketing strategy practicum will provide students an opportunity to integrate and apply marketing planning and strategic concepts to real-world problems while developing skills in teamwork, written and oral communication, critical thinking, and quantitative and qualitative analysis. Prerequisites: MKT 291 and senior standing.

MKT 498/598 Supply Chain Management (3)
Provides broad understanding of supply chain management. Covers primary activities required to manage supply chains effectively, how members of the supply chain are horizontally integrated, and processes for assessing performance and impact of supply chain management activities. Focuses on relationships between supply chain entities and behavioral issues that influence management of those issues. Students learn integrative tools for analyzing and evaluating alternative courses of action regarding supply chain management activities and functions. Prerequisite: MGT 432, MKT 431. Cross-listed with MGT 498/598.

MKT 601 Graduate Survey In Marketing (1)
Introduces the MBA student to concepts and decisions within marketing, as well as the implications marketing decisions have for other aspects of the organization. Examines consumers and segments, product and service planning, channel design, promotional strategy, and pricing.

MKT 602 MBA Creativity Module (1)
Introduces the MBA student to creative thinking by assessing personal cognitive styles, applying methods to stimulate creativity, developing methods for idea selection and launching related initiatives.

MKT 611 Professional Services Marketing (3)
Study of service marketing characteristics in the business service profession. Develops an understanding of the importance of service quality and the issues concerning practice development. Prerequisite: graduate standing in business or permission of instructor.

MKT 618 Marketing Management (3)
Focuses on business's front lines; the value creation from which all economic activity derives. Addresses how sellers identify, manage, and meet customer needs and wants through concepts, heuristics, models, and frameworks that help stimulate and manage customer-centric organizations. Leverages a mix of current readings and case analyses to bring cutting edge thinking and applications to life.

MKT 619 Seminar in International Business (3)
Intensive investigation of international business environment and its theoretical foundations, including all aspects of marketing, finance, accounting, economics, and management. Impact of cultural and political influences on business operations examined. Class discussions and case analysis link key issues of concern to executives responsible for international management of the fields of discipline within international administration. Prerequisite: ECO 201, 202. Summer only.

MKT 622 Creativity, Innovation & Problem Solving in Marketing (3)
Participants will learn to meet the demand for rapid, creative solutions to ever-changing business challenges. Addresses creativity stimulation within both individuals and teams by building a toolbox of techniques that participants apply to problems commonly arising in marketing and business. Included are topics such as (1) problem definition (e.g., too narrow vs. too broad), (2) the need for multiple perspectives (e.g., core competency vs. core rigidity), (3) methods for stimulating idea generation (e.g., empathic design), and methods for evaluating ideas and their potential profitability (e.g., conjoint). Prerequisite(s): MKT 618.

MKT 626 Integrative Concepts: Marketing Strategy and Interpersonal Relationships (3)
Continues integration of various functional areas of business. Introduces MBA student to industry analysis, product and distribution issues, promotion, and pricing. Nature of and development of interpersonal relationship skills stressed, including nonverbal communication, social style, and negotiation. Continues development of oral and written communication skills within a managerial context. Particular emphasis given to assessment of development of essential skills.

MKT 632 Information Network Marketing (3)
This course surveys the digital marketing landscape including its fringes, examining opportunities and threats driven by advances on the network frontier. The student will develop a set of critical skills so that she/he is better able to evaluate and find opportunity when presented with new technologies throughout their career. Understanding how to approach these advances is a critical skill for a marketer in today's environment. Prerequisite(s): MKT 618 and MIS 621.

MKT 642 Globalization and Marketing Strategy (3
Explores the impact of changes in the global economic, political, socio-cultural, and technological environment on the development and implementation of strategic marketing decisions within both foreign and domestic country markets. Prerequisite(s): MKT 618.

MKT 671 Business Marketing Conceptual Foundations (3)
Develops framework for understanding conceptual foundations of business marketing management. Provides depth and breadth of understanding areas of organizational buying behavior, unique business market characteristics and critical elements of business marketing strategic planning.

MKT 672 Strategy Planning for Business Markets (2)
Provides depth and breadth to student's ability to develop strategy and solve problems in the business market environment. Examines current and future business issues and management concerns and helps integrate knowledge into process of developing strategy and solving problems.

MKT 673 Business Marketing Intelligence (3)
Introduces information used in the process of formulating strategy and making decisions in the business marketing environment. Develops understanding of the role and use of information in the strategic planning process and the methods for gathering information.

MKT 674 Contemporary Issues in Marketing (1)
Reviews topics currently of importance to marketing managers. Objective is to expose students to a wide range of contemporary issues that have the potential to impact the marketing management function.

MKT 681 Special Studies in Marketing Management (1-5)
Independent investigation, research, reading, and analysis of assigned topics. Registration only with permission of instructor.

MKT 691 Entrepreneurship Theory and Practice (3)
Examination of the entrepreneurial process from an interdisciplinary and cross-functional perspective, with applications in start-up, small business and corporate contexts. Emphasis on innovation, risk taking and growth. Prerequisite: Graduate standing.

MKT 700 Thesis (3-6; minimum 3, maximum 6)

MATHEMATICS COURSES (MTH - Arts and Science; Department of Mathematics)

Note:
1. *Service courses* do not count toward majors in the Department of Mathematics. They may or may not count toward majors in other departments. Look carefully at your major requirements and at the mathematics and statistics placement guide in this Bulletin.
2. On regional campuses, placement into MTH 101, 102, 115, 125, and 151 is based on achieving an appropriate score on a standard placement test administered at the regional campus.

MTH 101 Introduction to Elementary Algebra (3)
Service course. Introduction to fundamental topics of beginning algebra. Primarily for students with no previous course in algebra. Offered only on Hamilton and Middletown campuses. Credit/no-credit only. Prerequisite: passing grade in MTH 002 or qualifying placement score.

MTH 102 Intermediate Algebra (3)
Service course. Introduction to functions and a study of algebra topics including radicals, quadratics, and rational expressions. Prerequisite: Passing grade in MTH 101 or qualifying placement score.

MTH 104 Precalculus with Algebra (5)
Service course. Functions, rational functions, logarithmic and exponential functions, trigonometry, along with review of algebra topics important for calculus. Prerequisite: two years of college preparatory mathematics, but little or no trigonometry.

Note: Credit for graduation will not be given for more than one of MTH 102 and 104 nor for more than one of MTH 104, 123, and 125. At most nine credit hours toward graduation can be earned from any combination of MTH 101, 102, 104, 123, and 125.

MTH 115 Mathematics for Teachers of Grades P-6 (4) MPF
Service course. Topics include problem solving, numeration, computation, number theory, and rational numbers. Designed to

provide content background for teaching mathematics in elementary grades. Successful completion of this course may require an examination in basic mathematics. Open only to early childhood or middle childhood majors not concentrating in mathematics and special education majors. Prerequisite: two years of high school algebra or a college algebra course. V.

MTH 116 Mathematics for Elementary Teachers (4)
Service course. Topics are from geometry, probability, and statistics. Designed to provide content background for teaching mathematics in elementary grades. Open only to early childhood and special education majors.

MTH 121 Finite Mathematical Models (3) MPF
Service course. Introduction to linear, probabilistic, graph-theoretic, and network models with emphasis on development of algorithms. Systems of linear equations, linear programming, matrix algebra, graphs, networks, discrete probabilistic models, and linear recurrence relations with applications of these topics to areas in the management, social, and biological science. Prerequisite: MTH 102 or 104 or three years of college preparatory mathematics including Algebra II. V. CAS-E.

MTH 123 Precalculus (3)
Service course. Covers many topics important for calculus: functions, rational functions, logarithmic and exponential functions, trigonometry, and some analytic geometry. Prerequisite: three years of college preparatory mathematics including some trigonometry.

MTH 125 Precalculus (5)
Service course. Review of algebra topics important for calculus. Functions, polynomials, rational functions, logarithmic and exponential functions, trigonometric functions and their inverses, conic sections, nonlinear systems, and applications of functions. Offered only on Hamilton and Middletown campuses. Credit does not count toward a major in mathematics and statistics. Prerequisite: "C" or better in MTH 102 or qualifying placement score.

MTH 129 Precalculus Enrichment Workshop (2)
Service course. Content parallels MTH 104 and 123. Designed to enhance a regular precalculus offering, this course consists primarily of group work on projects of an extended character. Prerequisite: concurrent enrollment in MTH 104 or 123 and permission of department. Offered infrequently.

Note: Credit for graduation will not be given for more than one of MTH 151 or 153.

MTH 151 Calculus I (5) MPF, MPT
Limits and continuity, derivatives, integration, calculus of trigonometric and exponential functions. Prerequisite: three and a half or four years of college preparatory mathematics including trigonometry, but less than one semester of calculus. Or, one of MTH 104 or 123 or 125. V. CAS-E.

MTH 153 Calculus I (4) MPF, MPT
Covers same content as MTH 151, but assumes some previous study of calculus. (See MTH 151.) Prerequisite: four years of college preparatory mathematics including trigonometry and at least one semester of high school calculus. V. CAS-E.

MTH 157H Honors Calculus I (5)
Rigorous in-depth treatment of ideas found in Calculus I. Prerequisite: strong background in precalculus mathematics and permission of department.

MTH 159 Calculus Enrichment Workshop (2)
Content parallels calculus I (MTH 151/153). Designed to enhance a regular calculus offering, this course consists primarily of group work on projects of an extended character. Prerequisite: concurrent enrollment in a calculus I course and permission of department.

MTH 175 Environmental Science Seminar (1)
Introduces the multidisciplinary nature of environmental science and the solution of environmental problems. This course does not meet any CAS requirements. Cross-listed with BOT/CHM/GEO/GLG/MBI/STA/ZOO 175

MTH 190 First Year Seminar in Mathematics and Statistics (1; maximum 1)
Seminar groups explore and discuss topics in mathematics and statistics. Credit/no credit only. Prerequisite: completion of or concurrent enrollment in Calculus I (or above) or permission of instructor.

MTH 217 Mathematics for Middle Childhood Teachers: Structure of Arithmetic and Algebra (3)
Service Course. A systematic study of the underlying properties and structures of arithmetic and algebra with an emphasis on the rationals and irrationals. Topics include modular arithmetic, problem solving, decimals, ratio, percent, proportion, and number theory. Open only to middle childhood education majors with a concentration in mathematics. Prerequisites: MTH 151 or 153.

MTH 218 Geometry for Middle Childhood Teachers (3)
Service Course. Designed to develop a deep understanding of geometry appropriate for the middle grades. Focuses on properties of geometric figures, similarity and scaling, measurement, symmetry, and geometric transformations. Open only to middle childhood education majors with a concentration in mathematics.

MTH 222 Introduction to Linear Algebra (3) MPT
Treatment with emphasis on Euclidean spaces and matrix algebra: systems of linear equations, elementary matrix operations, determinants, vector methods in geometry, vector spaces, and linear transformations. Prerequisite: one semester of calculus. CAS-E.

MTH 222T Introduction to Linear Algebra (Honors) (2)
Departmental honors version of MTH 222. Co-requisite: MTH 331T. Requires permission of instructor.

Note: Credit for graduation will not be given for more than one of MTH 231 or 331.

MTH 231 Elements of Discrete Mathematics (3) MPT
Service course. Topics, techniques and terminology in discrete mathematics: logic, sets, proof by mathematical induction, matrix algebra, relations, counting, finite-state machines. Credit does not count toward a major in mathematics and statistics. Prerequisite: MTH 151 or 153 or permission of instructor.

MTH 245 Differential Equations for Engineers (3)
Service course. Mathematical techniques used in engineering: ordinary differential equations first order, higher order and systems, Laplace transforms, and applications. Prerequisite: Calculus II.

Note: Credit for graduation will not be given for more than one of MTH 245 and MTH 347.

Note: Credit for graduation will not be granted for more than one of MTH 249, 249H and 251.

MTH 249/249H Calculus II/Honors Calculus II (5) MPF
Fundamental concepts of MTH 151 (limits and continuity, differentiation, integration) followed by content of MTH 251. (See MTH 251.) The honors course offers an in-depth treatment of these topics. Admission to the honors course requires honors standing or permission of the instructor. Prerequisite: a year of high school calculus including calculus of trigonometric, logarithmic, and exponential functions. Enrollment advice based on placement test scores and/or AP credit for MTH 151. Limited to first-year students. V.

MTH 251 Calculus II (4)
Continuation of Calculus I. Plane analytic geometry, techniques of integration, parametric equations, polar coordinates, infinite series, approximations, applications. Prerequisite: Grade of C or better in Calculus I. CAS-E.

MTH 252/252H Calculus III/Honors Calculus III (4) MPT
Continuation of Calculus I and II. Three-dimensional analytic geometry, vectors, derivatives, multiple integrals, applications. The honors course offers an in-depth treatment of these topics. Admission to the honors course requires honors standing or permission of the instructor. Prerequisite: Calculus II.

MTH 257H Honors Calculus II (4)
Rigorous in-depth treatment of ideas found in Calculus II. Prerequisite: MTH 157.H and permission of department.

MTH 275 Principles of Environmental Science (3)
Introduction to the principles and methodologies of environmental science. Topics include contamination of earth systems and pollution mitigation; use, abuse and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. This course does not meet any CAS requirements. Cross-listed with BOT/CHM/GEO/GLG/MBI/STA/ZOO 275.

MTH 330 Problems Seminar (1; maximum 2)
Solution and discussion of calculus and linear algebra problems found in challenging sections of textbooks and on standard, externally administered examinations. Credit/no-credit only.

Prerequisite: Completion of or concurrent enrollment in Calculus III and MTH 222. Offered infrequently.

MTH 331 Discrete Mathematics (3) MPT
Designed to ease the transition to 400- level courses in mathematics and statistics. Covers propositional and predicate logic, methods of proof, induction, sets, relations and functions. Additional topics may include cardinality, elementary number theory, recurrences and graphs. Prerequisite: Calculus II and MTH 222 or permission of instructor.

MTH 331T Discrete Mathematics (Honors) (3)
Departmental honors version of MTH 331. Co-requisite: MTH 222T. Requires permission of instructor.

MTH 347 Differential Equations (3) MPT
Theory of ordinary differential equations with applications. Topics include first order differential equations, higher order linear equations, and systems of first order equations. Prerequisite: completion of or concurrent registration in MTH 222 and Calculus III.

MTH 407/507 Mathematical Structures Through Inquiry (3) MPC
MTH 407 is open only to middle childhood education majors; MTH 507 is open only to PreK-9 teachers. Study of the structure of mathematical systems, especially number systems, developed through student-centered inquiry: pattern recognition, generalizing conjecturing, and proof. Prerequisite: nine semester hours of MTH/STA courses including MTH 217 and 218 or permission of instructor.

MTH 408/508 Mathematical Problem Solving with Technology (3)
For current and prospective AYA mathematics teachers; built around problem solving experiences. Heuristics for problem solving are developed, and students solve problems in a variety of mathematical areas. Various technologies, including computers and calculators, are used as tools for problem solving. Only for students in licensure or MAT programs.

MTH 409/509 Secondary Mathematics from an Advanced Perspective (3)
Provides a deeper analysis of problems and concepts drawn from high school mathematics to help teachers make connections between the advanced mathematics they are learning in college and the high school mathematics they will be teaching. Only for students in AYA licensure programs. Prerequisite: at least 9 hours of 400-level MTH/STA courses and completion of or concurrent enrollment in MTH 421.

MTH 410/510 Topics In Geometry (3)
A course in an area of geometry; for example: affine and metric geometry, differential geometry, advanced analytic geometry, non-Euclidean geometries, finite geometries.

MTH 411/511 Foundations of Geometry (3) MPT
Careful examination of underlying ideas of Euclidean geometry and some non-Euclidean geometries, including projective, metric, and finite. Various approaches include transformations and synthetic treatments. Prerequisite: MTH 222.

MTH 420/520 Topics in Algebra (1-4; maximum 8)
Topics selected from an area of modern or linear algebra. Prerequisite: permission of instructor. Offered infrequently.

MTH 421/521 Introduction to Abstract Algebra (4) MPT
Elementary theory of groups, rings, integral domains, fields, homomorphisms, and quotient structures. Prerequisite: MTH 222 or 231 and MTH 252.

MTH 422/522 Linear Algebra and Fields (4)
Fields and an introduction to Galois theory. Linear algebra, matrix algebra, determinants, an introduction to modules, and canonical forms. Prerequisite: MTH 222 and 421/521 or 621 or permission of instructor.

MTH 425/525 Number Theory (3) MPC
Study of patterns that arise when whole numbers are added, multiplied, subtracted, and factored. A variety of ideas from algebra, geometry, calculus, and set theory contribute to the solution of such problems, and number theory provides surprising connections among these ideas. Once thought to be "pure" mathematics, without applications, number theory is now highly valued in industry and government for its use in encoding and decoding secure transmissions of information. Prerequisite: MTH 421 or permission of instructor.

MTH 430 Problems Seminar (1; maximum 3)
Solution and discussion of problems from the *Mathematical Monthly* and other sources. Prerequisite: permission of instructor.

MTH 432/532 Optimization (3)
Optimization of functions of several variables, convexity and least squares, Kuhn-Tucker conditions, linear programming. Prerequisite: MTH 222 and MTH 252 or equivalents or permission of instructor.

MTH 435/535 Mathematical Modeling Seminar (3) MPC
Applications of mathematics to real-world situations in a variety of projects. Emphasizes integrating a wide range of mathematical techniques, making oral and written presentations of results, and using both software packages and computer programming for problem solving. Prerequisite: MTH 347 or a 400-level MTH/STA course, or permission of instructor.

MTH 436/536 Combinatorial Designs and Coding Theory (3)
Provides an introduction to combinatorial design and coding theory with a focus on basic concepts and essential tools. Topics are selected from: An introduction to finite fields, difference methods, symmetric designs, orthogonal Latin squares, league schedules, basic concepts in coding theory, linear codes, perfect codes, BCH codes, and Reed-Solomon codes. The focus is on the theoretical aspect of these topics. Prerequisite(s): Discrete Math (MTH 231 or MTH 331 or equivalent), and Linear Algebra (MTH 222 or equivalent), or permission of instructor.

MTH 437/537 Game Theory and Related Topics (3)
Two-person games with applications. N-person cooperative games with side payments. Various solution concepts for games with applications to social and environmental problems. Power indices for voting games including multi-candidate elections. Related topics such as utility theory, decision theory, measurement theory, fair division or partition function games. Prerequisite: MTH 222 or 231 or permission of instructor.

MTH 438/538 Theory and Applications of Graphs (3)
Proof-oriented course on structural properties selected from the following: Basic structural properties, trees, connectivity, traversability (Eulerian Tours and Hamiltonian Cycles), vertex and edge colorings, cliques, planarity, and directed graphs. Applications to finding algorithms for shortest path problem, minimum weight tree problem, optimal assignment problem, network flows, and other scheduling and transportation problems. Prerequisite: MTH 222 or 231 or permission of instructor.

MTH 439/539 Combinatorics (3)
Counting methods: permutations, combinations, generating functions, recurrence relations, inclusion/exclusion. Incidence structures: block designs, Latin squares, finite geometries. Prerequisite: MTH 222 or 231 or permission of instructor.

MTH 440/540 Topics in Analysis (1-4; maximum 8)
Topics selected from an area of analysis. Prerequisite: permission of instructor. Offered infrequently.

MTH 441/541 Real Analysis (3)
Continuity, differentiation, convergence, series and integration, in both one and several variables. Prerequisite: MTH 222 or 231 and MTH 252.

MTH 442/542 Real Analysis (3)
Continuity, differentiation, convergence, series and integration, in both one and several variables. Prerequisite: MTH 222 and 441/541.

MTH 447/547 Topics in Mathematical Finance (3)
Mathematical methods in options pricing; options and their combinations, arbitrage and put-call parity, stock and option trees, risk neutral pricing, geometric Brownian motion for stock models and derivation of the Black-Scholes formula; and as time allows, additional topics such as futures, forwards, swaps and bond models. Prerequisite: MTH 251 or equivalent and an introduction to statistics such as STA 301 or DSC 205.

MTH 451/551 Introduction to Complex Variables (3)
Algebra and geometry of complex numbers, elementary functions of a complex variable including integrals, power series, residues and poles, conformal mapping, and their applications. Prerequisite: MTH 222 or 231 and MTH 252.

MTH 453/553 Numerical Analysis (3)
Errors and error propagation, root-finding methods, numerical solution of linear systems, polynomial and cubic spline interpolation, numerical differentiation and integration, programming of algorithms. Prerequisite: MTH 222 and MTH 252 and some knowledge of computer programming.

MTH 454/554 Numerical Analysis (3)
Numerical solution of differential equations, approximation theory, iterative techniques in matrix algebra, approximating eigen values, and numerical methods in optimization. Prerequisite(s): MTH 222, MTH 252 and MTH 347.

MTH 470/570 Topics in Combinatorics/Graph Theory (3)
The single topic covered and the prerequisite varies; consult the instructor. Typical topics include parallel computation networks, error-correcting codes, probabilistic methods in combinatorics, and combinatorics of finite sets. Prerequisite: permission of instructor. Summer only.

MTH 480 Departmental Honors (1-6; maximum 6)
Departmental honors may be taken for a minimum of four semester hours and a maximum total of six semester hours, in one or more semesters of the student's senior year.

MTH 482 Great Theorems of Mathematics (3) MPC
Students encounter original works of some of the world's greatest mathematicians. Examples of such notable achievements as the geometry of Euclid, the calculus of Newton, or the number theory of Gauss studied, along with biographical sketches and historical background summaries. Each student 'adopts' a mathematician and completes an individual project related to that person's mathematical work. Prerequisite: at least one of MTH 411, 421, or 441.

MTH 483/583 Introduction to Mathematical Logic (3)
Survey of topics that bear upon the nature of pure mathematics and logic. Special attention given to first-order mathematical logic with related discussions of such topics as mathematical linguistics, theory of effective computability, nonstandard analysis, and foundations of mathematics. Prerequisite: MTH 421 or 441 or permission of instructor.

MTH 485/585 Mathematical Recreations (2-3; maximum 3)
Topics in mathematics of a recreational nature, including algebraic puzzles, magic squares, network problems, and mathematical games. Other topics selected from computational tricks, geometric and topological problems, logic puzzles, and cryptography. Prerequisite: MTH 411 or 421 or permission of instructor.

MTH 486/586 Introduction to Set Theory (3)
The Recursion Theorem, Cardinality, Cardinal Numbers, Well-orderings, Ordinals, The Axiom of Replacement, Transfinite Induction and Recursion, Ordinal Arithmetic, The Axiom of Choice, Cardinal Exponentiation, Ultrafilters, Stationary Sets. Prerequisites: MTH 222 and MTH 252.

MTH 491/591 Introduction to Topology (3)
Elementary set theory and cardinality, metric spaces and topological spaces, sequence convergence, complete metric spaces, Baire Category Theorem, continuity, uniform continuity, bases for a topological space, first and second countability, relationships among separable, Lindelof and second countable properties, product topology, separation axioms, Urysohn's Lemma, Tietze Extension Theorem, compactness, characterizations of compactness in metric spaces, Tychonoff Theorem, local compactness, connectedness. Prerequisite: MTH 222 and MTH 252.

MTH 492/592 Topics in Topology (3)
Content selected to include some of the following: topology of surfaces (Klein bottle, Moebius strip, torus, etc.), fixed point theorems, vector fields, networks, homotopy, homology, knot theory. Prerequisite: MTH 491/591 or permission of instructor. Summer only; offered infrequently.

MTH 495/595 Introduction to Applied Nonlinear Dynamics (3)
Study of nonlinear dynamics of dynamical systems with application of associated one-dimensional and two-dimensional flows/maps, bifurcations, phase plane dynamics, stability and control. Applications from physics, biology, chemistry, and engineering will be utilized throughout the course. Cross-listed with MME. Prerequisite(s): MTH 245 or MTH 347 or permission of instructor.

MTH 600 Topics in Advanced Mathematics (1-4; maximum 10)
Prerequisite: permission of department chair.

MTH 604 Discrete Mathematics for Secondary School Teachers (3)
For high school teachers. Selected topics, such as: algorithms, Boolean algebra, combinatorics, difference equations, functions, graphs, and networks. For students in mathematics and statistics programs, credit may only be applied to the degree Master of Arts in Teaching. Prerequisite: licensure in secondary school mathematics or permission of instructor. Summer only; offered every third summer.

MTH 605 Calculus for Secondary School Teachers (3)
For high school teachers. A return to the main topics of calculus with more emphasis on theory, applications, and historical development than in the usual introductory course. For students in mathematics and statistics programs, credit may only be applied to the degree Master of Arts in Teaching. Prerequisite: licensure in secondary school mathematics or permission of instructor. Summer only; offered every third summer.

MTH 606 Geometry for Secondary School Teachers (3)
For high school teachers. Re-examination of traditional material of secondary-school geometry from an advanced viewpoint. Recent developments on content and methods are included. For students in mathematics and statistics programs, credit may be applied only to the degree Master of Arts in Teaching. Prerequisite: licensure in secondary school mathematics or permission of instructor. Summer only; offered every third summer.

MTH 607 Algebra for Secondary School Teachers (3)
For high school teachers. An in-depth development of selected topics with their applications and history. Theory of equations, number theory, number systems, complex numbers, systems of equations, matrices, determinants, algebraic structures. For students in mathematics and statistics programs, credit may be applied only to the degree Master of Arts in Teaching. Prerequisite: licensure in secondary school mathematics or permission of instructor. Summer only; offered every third summer.

MTH 620 Topics in Algebra (1-4; maximum 8)
Topics selected from an area of algebra. Prerequisite: permission of department chair. Offered infrequently.

MTH 621 Abstract Algebra I (4)
Sylow theory, composition series, polynomial rings. Galois theory of fields, modules over a principal ideal domain and their application. Prerequisite: MTH 421/521 or permission of department chair.

MTH 622 Abstract Algebra II (3)
Continued study of structures from MTH 621 together with algebras, tensor products, radicals, chain conditions and dimension, within one of the frameworks: commutative algebra, artinian rings, homological algebra, or Lie algebras. Prerequisite: MTH 621.

MTH 630 Topics in Operations Research (1-4; maximum 8)
Special topics selected from game theory, combinatorics, graph theory, optimization, computer algorithms, and other subjects under general heading of operations research. Prerequisite: permission of instructor.

MTH 632 Advanced Optimization (3)
Careful development of the theory of finite-dimensional continuous optimization, emphasizing the differentiable and convex cases. Prerequisite: MTH 432/532 and 441/541 or permission of instructor.

MTH 638 Advanced Graph Theory (3)
Advanced treatment of graph theory with topics selected from: Extremal problems, probabilistic, algebraic, and topological aspects of graph theory, analysis of graph algorithms, Ramsey theory. Prerequisite: MTH 438/538 or permission of instructor.

MTH 641 Functions of a Real Variable (4)
Lebesgue measure, Lebesgue integration, differentiation, general measures and integration, Radon- Nikodym theorem, Fubini theorem, classical Lp spaces, Banach spaces. Prerequisite: MTH 491/591.

MTH 651 Functions of a Complex Variable (4)
Complex number system, analytic functions, complex integration and calculus of residues, representation, analytic continuation, Riemann mapping theorem. Prerequisite: MTH 441/541 and 451/551.

MTH 690 Advanced Topics in Topology (1-4; maximum 8)
Contents selected from: algebraic topology, manifolds and differential topology, topological algebra, dimension theory. Prerequisite: MTH 491/591 or permission of instructor. Offered infrequently.

MTH 691 Topology (4)
Topological spaces, product and quotient spaces, covering properties (compactness, paracompactness), metrizability, convergence, (filters, ultrafilters), Stone-Cech compactification. Prerequisite: MTH 491/591.

MTH 698 Seminar in the Teaching of First-Year Mathematics (1)
Required of all newly appointed graduate assistants, this seminar deals with practical problems encountered in teaching precalculus and calculus with consideration of which precalculus topics are

most helpful in our calculus courses. Credit does not count toward a graduate degree in mathematics. Offered on credit/no-credit basis only. Prerequisite: graduate standing and teaching responsibilities in mathematics. Summer only.

MTH 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

MECHANICAL AND MANUFACTURING ENGINEERING COURSES (MME-Engineering and Applied Science)

MME 211 Static Modeling of Mechanical Systems (3) MPT
Introduction to mechanics. Study of the theory and application of the mechanics of rigid bodies in equilibrium. Prerequisite: EAS 101, MTH 151. Co-requisite: EAS 102, PHY 181.

MME 213 Computational Methods in Engineering (3)
Study and use of fundamental computational methods as applied to engineering analysis and design. Computational methods are explored via discussion of errors and approximations, iterative methods of solving equations. Graphical methods are explored via 3-D modeling with emphasis on assembly and design including limit dimensioning and geometric tolerancing. Prerequisite: EAS 101 and EAS 102.

MME 223 Engineering Materials (3)
Study of metals, ceramics, and plastics; dependence of properties on structure; selection and application of engineering materials. Prerequisite: EAS 101. Co-requisite: CHM 141. 2 Lec. 1 Lab.

MME 231 Manufacturing Processes (3)
Introduction to a wide variety of manufacturing processes with emphasis on process modeling and laboratory measurement of process conditions and product variables. Consideration of relations among material properties, process settings, tooling features, and product attributes. Design and implementation of a process for manufacture of a given component. Prerequisite: MME 211, 223. Co-requisite: STA 368. 2 Lec. 1 Lab.

MME 303 Computer-Aided Experimentation (4) MPT
Advanced topics in electric circuit analysis are combined with an in-depth study of theory and application of instrumentation and experimentation; power analysis, polyphase circuit analysis, transformer principles, frequency response, second order systems, and signal conditioning circuits are covered as well as components, and concepts of computer-machine interface systems; design of computer-controlled experimentation for real-time measurement, monitoring, and control of automated-industrial processes. Prerequisite: ECE 205, MME 211, STA 368 or STA 301. 3 Lec. 1 Lab. Cross-listed with ECE 303.

MME 311 Dynamic Modeling of Mechanical Systems (3) MPT
Displacement, velocity, and acceleration of a particle; relations between forces acting on a rigid body and changes in motion produced; translation; rotation, plane motion. Solutions using principles of force, mass, and acceleration; work and energy; and impulse and momentum. Prerequisite: MME 211, MME 213, MTH 251.

MME 312 Mechanics of Materials (3)
Elastic relationships between external forces acting on deformable bodies and resulting stresses and deformations. Theory, analysis, and applications of these relationships. Prerequisite: MME 211.

MME 313 Fluid Mechanics (3) MPT
Fundamentals and application of the mechanics of fluids including properties, statics and dynamics of fluids, dimensional analysis and similitude, steady state flow, and topics in compressible flow. Prerequisite: MTH 251, PHY 181, and either PCE 219 or MME 211, or permission of instructor. Cross-listed with PCE 313.

MME 314 Engineering Thermodynamics (3)
Study of the fundamental principles of thermodynamics. Emphasis placed on engineering applications such as power cycles, refrigeration, and heat transfer systems. Prerequisite: MTH 251, PHY 181. Cross-listed with PCE 314.

MME 315 Mechanical Vibrations (3)
Modeling and analysis of the vibrational response characteristics of single-degree-of-freedom, multi-degree-of-freedom, and continuous systems. Prerequisites: MME 311, MTH 245.

MME 320 Professional Practice (0)
Students participating in the MME co-op program register for this course during semesters when they are away from Oxford on work assignment. This enables students to remain in good standing with the University Registrar.

MME 334 Quality Planning and Control (3) MPT
Study of principles and techniques of precision linear measurement, analysis of these measurements, design of experiments, total quality management concepts and applications in the manufacturing environment. Philosophy, structure, and implementation of quality assurance programs. Prerequisite: MME 231, STA 368, or equivalent industrial experience. 2 Lec. 1 Lab.

MME 341 Engineering Economics (3)
Engineering economic decisions; breakeven and minimum cost analysis; engineering methods of resource allocation; concepts of interest; time evaluation of tactical and strategic alternatives. Prerequisite: ECO 201, MTH 151. Co-requisite: STA 368 or PCE 204. Cross-listed with PCE 341.

MME 403/503 Heat Transfer (3) MPT
Continued study of unit operations with emphasis on heat transfer. Study of steady and unsteady conduction, and laminar, turbulent, boiling, and condensing convective heat transfer. Radiation heat transfer, heat exchangers, evaporators, and transfer units. Prerequisite(s): PCE/MME 313, PCE/MME 314, MTH 245. Cross-listed with PCE 403/503.

MME 411 Machine and Tool Design (4)
Applications of fundamental engineering principles for implementing all phases of the design of machines and tooling, including economic and manufacturability considerations. Emphasis on design, analysis, and engineering judgment. Prerequisite: MME 231, 312. 3 Lec. 1 Lab.

MME 412/512 Advanced Mechanics of Materials (3)
This course is the advanced study of mechanical behavior of structures. Analysis, design and computational techniques for curved beams, spinning disks, thick-walled cylinders, asymmetric beams, torsion, and buckling will be introduced with the foundations for energy and Finite element methods. Prerequisites: MME 223 and 312; MTH 245. Co-requisite: MME 411.

MME 414 Engineering Thermodynamics II (3)
Thermodynamics of ideal and real power and refrigeration cycles and devices, mixtures, combustion, and compressible flow, property relations and determination, advanced energy considerations. Prerequisite: MME/PCE 314.

MME 431 Cost Estimating for Engineers (3)
Topics in engineering cost analysis, including value analysis, prediction of engineering and manufacturing costs, and techniques of technological cost control. Prerequisite: MME 231, 341 or equivalent industrial experience.

MME 434 Advanced Manufacturing (3)
In-depth study of the planning and method of selection and sequencing of various chip generating and assembly processes in order to produce a product with the highest usable quality at the lowest cost. Workplace design, assembly, and inspection features and positioning devices analyzed. Advanced techniques involving robotics and computers used in developing manufacturing processes. Prerequisite: MME 231. Co-requisite: MME 334. 2 Lec. 1 Lab.

MME 435 Manufacturing Topics (3)
An in-depth study of the proper selection and sequencing of manufacturing equipment and their integration into overall manufacturing methods to process a product incorporating the most recent manufacturing techniques with the highest usable quality, at the lowest cost. Prerequisite: MME 434. Co-requisite: MME/ECE 303. 2 Lec. 1 Lab.

MME 436/536 Control of Dynamic Systems (3)
An in-depth study of the theory, design, and analysis of feedback control of dynamic systems. Integrate the problem-solving techniques and concepts of electric circuits and computer-aided experimentation into the design and construction of programmable-logic based control systems and its application in modern manufacturing systems. Design methodologies applied in lab exercises and short-term design projects. Prerequisite: MME/ECE 303 or ECE 305. 2 Lec. 1 Lab. Cross-listed with ECE 436.

MME 437 Computer-Integrated Manufacturing Systems (3)
In-depth study of theory, design, and application of computer-controlled manufacturing systems. Applications of advanced technologies including adaptive-control, automated materials

handling and flexible manufacturing systems. Prerequisite: MME/ECE 303, MME 434. 2 Lec. 1 Lab.

MME 448/449 Senior Design Project (2, 1-2) MPC
Student teams, with varied academic backgrounds, conduct major open-ended research/design projects. Elements of the design process are considered as well as real-world constraints, such as economic and societal factors, marketability, ergonomics, safety, aesthetics, and ethics. 448: feasibility studies performed; 449: implementation, testing, and production of design. Non-majors can register for 3-4 credits; (448) 2 credits, (449) 1-2 credits. Prerequisite: senior standing in student's major. Cross-listed with ECE 448/449 and CSE 448/449.

MME 495/595 Introduction to Applied Nonlinear Dynamics (3)
Study of nonlinear dynamics of dynamical systems with application of associated one-dimensional and two-dimensional flows/maps, bifurcations, phase plane dynamics, stability and control. Applications from physics, biology, chemistry, and engineering will be utilized throughout the course. Cross-listed with MTH. Prerequisite(s): MTH 245 or MTH 347 or permission of instructor.

MME 601 Numerical Methods for Science, Engineering, and Statistics (3)
Overview of numerical methods with consideration of implementing, testing, comparing, using, deploying in high performance environments. Topics include error and efficiency analyses, fast Fourier transforms, solution and conditioning of systems of non-linear equations, optimization, QR and SVD factorization, eigenvalues and eigenvectors, least squares approximation, interpolation, numerical integration, solution of ordinary and partial differential equations, and Monte Carlo techniques. Prerequisites: Differential Equations (MTH 245 or similar); matrix algebra and linear systems (MTH 231 or MTH 222); some computer programming experience (CSA 153 or CSA 174 or similar discipline-specific programming course).

MME 610 Graduate Seminar (1)
Invited presenters and faculty provide lectures and demonstrations on current research topics in computational science and engineering of interest to the faculty and students. Required of all MME CS&E graduate students in residence. Approved for credit/no-credit grading only. May be repeated. Prerequisites: Graduate student standing or consent of instructor.

MME 615 Advanced Vibration (3)
Advanced research and computational topics in vibration and its applications. Topics will include Modeling and response of discrete and continuous vibratory systems; Active and passive vibration control; Computational methods for estimating response of vibratory system; and Research problems in vibration. Prerequisites: MME 315 or equivalent and MME 436 or equivalent.

MME 623 Mechanical Behavior of Materials (3)
Mechanics and materials aspects of elastic and inelastic deformation. Basic concepts of stress and strain in 3-D representation. Specific phenomena considered include fracture mechanics, creep behavior, and fatigue of materials. The implications towards the part design will be considered. Principal approaches to metallic and polymer deformation modeling will be introduced. Prerequisites: MME 412 or equivalent or permission of instructor.

MICROBIOLOGY COURSES (MBI-Arts and Science)

MBI 102 Introduction to Research in Biology (1)
Designed to meet the following goals: 1) To provide an introduction to research in the general areas of cell, molecular and structural biology (CMSB). (2) To appreciate the overall research theme of Signaling mechanisms and cellular responses. (How cells respond to their environment by regulation of gene expression, cellular physiology, cell and tissue morphogenesis, as well as behavior). (3) To convey the significance and relevance of research being conducted in individual research labs. (4) To learn about research based careers in the Biological sciences. Cross-listed with BOT/CHM/ZOO.

MBI 103 Introduction to Research in Biology (Lab Rotations) (2)
Designed to complement the seminar course which provides an introduction to research in the general areas of cell, molecular and structural biology (CMSB). Students will have the opportunity to conduct two 8 week laboratory rotations and become involved in ongoing research projects. Through laboratory experiences, students will become familiar with skills essential for laboratory research, and become aware of routinely used tools and techniques. Cross-listed with BOT/CHM/ZOO. Prerequisites: BOT/CHM/MBI/ZOO 102.

MBI 111 Microorganisms and Human Disease (3) MPF
Discussion of microorganisms and human diseases they cause, with particular emphasis on the impact of these relationships on the development of human societies - past, present, and future. Does not count as credit toward an A.B. in microbiology. IVA.

MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) MPF, MPT
Integrated study of microbes, plants, and animals, emphasizing biological diversity and interdependence of life and the environment. Cross-listed with BOT/ZOO. 3 Lec. 1 Lab. IVA, LAB. CASD/LAB.

MBI 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (4) MPF, MPT
Biological principles common to microbes, plants, and animals, including interactions between organism and the environment. Cross-listed with BOT/ZOO. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

MBI 121 The Microbial World (3) MPF
Basic principles and concepts of microbiology as they pertain to current and foreseeable future issues that face us as individuals and members of society. Fosters appreciation of the novel and integral role microorganisms play in nature and their use in biotechnology. Does not count as credit toward an A.B. in microbiology. IVA.

MBI 123 Experimenting with Microbes (1) MPF
A series of laboratory exercises and demonstrations emphasizing general techniques of isolation, characterization, and cultivation of selected microorganisms. Co-requisite: MBI 111, 121 or 131 with permission of instructor. Does not count as credit toward an A.B. in microbiology. IVA, LAB CAS-D/LAB.

MBI 131 Community Health Perspectives (2) MPF
Discussion of community health primarily from the perspective of leading causes of disease and death in the U.S. Exploration of the impact of environment, behavior, and disease, including prevention and treatment strategies, on human health, public resources, and quality of life for society. Does not count as credit toward an A.B. in microbiology. IVA.

MBI 143 Lab Diagnosis of Disease (1) MPF
Combined lecture and laboratory introduction to hematology, immunohematology, clinical chemistry, and medical microbiology. Field trip including laboratory exercises at Miami University-affiliated hospital laboratories. Does not count as credit toward an A.B. in microbiology. CAS-D/LAB.

MBI 151 Clinical Lab Orientation, Techniques, and Instrumentation (4)
Introduction to Clinical Laboratory Technology including professional issues such as licensure and accreditation, analytical techniques used in the laboratory and basic instruments commonly found in clinical settings. Students will learn proper ways to handle clinical samples and how to perform simple point of care (POC) tests. Does not count as credit toward an A.B. in Microbiology or a B.S. in Clinical Laboratory Science. Concurrent courses: MBI 152 and MBI 156.

MBI 152 Basic Hematology and Hemostatis (4)
Introduction to basic hematology and blood coagulation. Students will learn the theory, techniques and clinical application of commonly performed test procedures. This course also includes instruction in the collection and processing of blood samples. Students will collect blood samples in participating clinical settings. Does not count as credit toward an A.B. in Microbiology or a B.S in Clinical Laboratory Science. Concurrent courses: MBI 151 and MBI 156.

MBI 153 Urinalysis and Body Fluids (3)
Combined lecture and laboratory course dealing with the principles and procedures used in the physical and chemical analysis of urine and other body fluids. Topics include the physiology, principles and analytical techniques commonly used in routine manual and automated chemical laboratory analysis of clinical material. Does not count as credit toward an A.B. in Microbiology or a B.S. in Clinical Laboratory Science. Prerequisites: CHM 131, MBI 151, MBI 152, MBI 156 and ZOO 171. Concurrent courses: MBI 154, MBI 155, and MBI 157.

MBI 154 Introduction to Clinical Chemistry (4)
Combined lecture and laboratory course dealing with the principles and procedures used in the physical and chemical analysis of blood. Topics include the physiology, principles and analytical techniques commonly used in routine manual and automated chemical laboratory analysis of clinical material. Does not count as credit toward an A.B. in Microbiology or a B.S. in Clinical Laboratory Science. Prerequisites: CHM 131, MBI 151, MBI 152, MBI 156 and ZOO 171. Concurrent courses: MBI 153 and MBI 157.

MBI 155 Advanced Hematology/Hemostatis (3)
Theory, testing and clinical correlation of abnormal hematology and coagulation as they relate to health and disease. Topics include cell morphology, abnormal hemoglobins, anemia, leukemia and coagulation abnormalities. Does not count as credit toward and A.B. in Microbiology or a B.S. in Clinical Laboratory Science. Prerequisites: CHM 131, MBI 151, MBI 152 and ZOO 171. Concurrent courses: MBI 153 and MBI 156.

MBI 156 Clinical Applications: Hematology and Coagulation (2)
Simulated clinical laboratory practice in routine hematology and coagulation procedures. Using an on-campus simulated clinical laboratory, students will develop proficiency in performing procedures as they rotate through various workstations. Does not count as credit toward an A.B. in Microbiology or a B.S. in Clinical Laboratory Science. Concurrent courses: MBI 151, and MBI 152.

MBI 157 Clinical Applications: Chemistry, Urinalysis, Body Fluids, Advanced Hematology and Coagulation (2)
Simulated clinical laboratory practice in routine clinical chemistry, urine and body fluid analysis and advanced hematology and coagulation procedures. Using an on-campus simulated clinical laboratory, students will develop proficiency in performing procedures as they rotate through various workstations. Does not count as credit toward an A.B. in Microbiology or a B.S. in Clinical Laboratory Science. Prerequisites: CHM 131, MBI 151, 152, 156 and ZOO 172. Concurrent courses: MBI 153, 154, 155 and ZOO 172.

MBI 161 Elementary Medical Microbiology (4) MPF, MPT
Elementary microbiology for students interested in a single unit devoted to understanding characteristics and activities of microorganisms and their relation to health and disease. Taught in Hamilton and Middletown only. Does not count as credit toward an A.B. in microbiology. IVA, LAB. CASD/ LAB.

MBI 175 Environmental Science Seminar (1)
Introduces the multidisciplinary nature of environmental science and solutions to environmental problems. Does not count as credit toward an A.B. in microbiology. Cross-listed with BOT/CHM/GEO/GLG/MTH/STA/ZOO 175.

MBI 177 Independent Study (1-4; maximum 8)
Research experience in the laboratory of a professor. Special attention given to the scientific method, literature searches, experimental design, and laboratory instrumentation and techniques.

Advanced Microbiology Courses

MBI 201 General Microbiology I (4) MPT
Consideration of fundamental aspects of structure, metabolism, genetics, and behavior of bacteria, archaea, viruses, and fungi. Laboratory stresses basic techniques and procedures common to all phases of science at professional level. Co-requisite: CHM 231 or 241. 3 Lec. 1 Lab. CAS-D/LAB.

MBI 202 General Microbiology II (4)
Consideration of viruses, bacteria, archaea, fungi, and their evolution and microbiological subdisciplines of microbial ecology, applied microbiology, epidemiology, and immunology. Laboratory stresses techniques relevant to each course subject area. Prerequisite: MBI 201. Co-requisite: CHM 242, 332, or permission of the instructor. 3 Lec. 1 Lab.

MBI 207 Writing Scientific Proposals (1)
This one credit hour seminar/discussion course will provide the opportunity for students to develop a research proposal and/or develop a manuscript for publication and/or a poster presentation. The overall goal of this course is to help students learn to write effectively in the field of cell, molecular and structural biology. Writing exercises will take the form of assignments that require the student to develop successive sections of the research proposal or other writing project until it is complete. Students will learn to (a) identify the attributes of a well written proposal, paper or poster, (b) search and cite appropriate, relevant literature (c) develop an awareness of plagiarism and ethics in science writing, (d) understand the role of constructive, critical feedback and editing and revising their writing. Cross-listed with BOT/CHM/ZOO.

MBI 275 Principles of Environmental Science (3)
Introduction to the principles and methodologies of environmental science. Topics include contamination of earth systems and pollution mitigation; use, abuse and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. Emphasis is on the multidisciplinary nature of environmental problems and their solutions. Does not count as credit toward an A.B. in microbiology. Prerequisites: At least one course from each of the following three categories is either pre- or co-requisite: 1) BOT/MBI/ZOO 115 or BOT 191 or ZOO 113; 2) CHM 111 or CHM 142/5; and 3) GLG 111/115 or 121/115 or 141/115 or GEO 121. Cross-listed with BOT/CHM/GEO/GLG/STA/ZOO.

MBI 277/377/477 Independent Study (1-4; maximum 8)
Research experience in the laboratory of a professor. Special attention given to the scientific method, literature searches, experimental design, and laboratory instrumentation and techniques. Prerequisite: MBI 201. (MPC 477C is a Miami Plan Capstone with concurrent enrollment in MBI 490C.)

MBI 333 Field Ecology (2)
Experience in collection, analysis, and interpretation of ecological data. Cross-listed with BOT/ZOO 333. Prerequisite: BOT/ZOO 209. 1 Lec. 1 Lab. CAS-D/LAB.

MBI 340 Summer Internship (1-12)
Laboratory research experience. Prerequisite: permission of instructor.

MBI 361 Epidemiology (3) MPT
Consideration of the epidemic nature, etiology, and characteristics of infectious and organic diseases, and methods used to analyze their control within the framework of environmental and population variables. Prerequisite: two hours of microbiology.

MBI 365 Molecular and Cell Biology (3) MPT
Cellular and molecular mechanisms utilized by bacteria, bacterial viruses, eukaryotes and animal viruses in converting genetic information into functional macromolecules, transporting them, using them to receive signals that induce cellular effects, and controlling the cell cycle. Prerequisites: MBI 116, 201, or equivalent.

MBI 402/502 Geomicrobiology (3)
Focuses on mutual interactions between microbial and geological processes. Topics include: role of microorganisms on mineral weathering rates, microbial mediated ore deposit formation, microbe enhanced oil recovery, life in extreme environments, search for bio-signatures in geological records and meteorites and implications for life on Mars, microbial ecology in ocean floor hydrothermal vents. Prerequisite: any 100-level, 3 credit hour GLG course; CHM 141R or 141, 144; or permission of instructor. Cross-listed with GLG.

MBI 405/505 Pathogenic Microbiology (4)
Pathogenic bacteria, their identification, and mechanisms by which they cause disease. Prerequisite: MBI 202. 3 Lec. 1 Lab.

MBI 414/514 Immunology Principles (3)
Lectures covering molecules, cells, tissues, and organs of the immune system. Primary emphasis on the mechanisms involved in immune responses. Prerequisites: MBI 202 (or permission of instructor) and CHM 242 or 332; recommended: MBI 365, ZOO 203, or ZOO 443.

MBI 415/515 Immunology Principles and Practice (4)
Covers the same lecture content as MBI 414/514, but adds laboratory exercises and demonstrations illustrating a variety of immunologic phenomena, techniques, and applications. Credit not given for both MBI 414/514 and MBI 415/515. Prerequisites: MBI 202 (or permission of instructor) and CHM 242 or 332; recommended: MBI 365, ZOO 203, or ZOO 443. 3 Lec. 1 Lab.

MBI 424/524 Biological Instrumentation (4)
Theory and application of modern biological instrumentation and techniques. Basic and advanced skills including use, maintenance and calibration of biological instruments. Prerequisites: BOT/MBI/ZOO 115 or BOT/MBI/ZOO 116 or BOT 191 or MBI 201 or MBI 202 or ZOO 113 or ZOO 114 or equivalent, CHM 141 and CHM 142 or equivalent, or permission of instructor. Cross-listed with BOT/CHM/ZOO. Offered fall semester of even years.

MBI 425/525 Microbial Physiology (4)
Biochemical activities of microorganisms as revealed by their cellular physiology. Prerequisites: MBI 202 and CHM 242 or 332. 3 Lec. 1 Lab.

MBI 435/535 Medical Mycology (3)
Characteristics of fungi associated with disease. Includes discussion of epidemiology, pathology, and diagnosis of mycotic diseases. Laboratory focuses on identification and biochemical activities of pathogenic fungi. Prerequisite: MBI 405/505 or BOT 421/521 or permission of instructor. 2 Lec. 1 Lab.

MBI 440 Research Problems (2; maximum 4)
Library research. Open to senior majors. Prerequisite: 20 hours of microbiology and permission of instructor. (MPC 440C is a Miami Plan Capstone with concurrent enrollment in MBI 490C)

MBI 445/545 Microbial Genetics (3)
Genetic changes that occur in bacteria and bacterial viruses and resulting changes in their biochemical and physiological activities. Co-requisite: MBI 425.

MBI 464/564 Human Viruses (3)
Study of the physical and chemical characteristics of viruses, virus replication mechanisms, disease causation and host response, and tumor induction. Prerequisite: MBI 202, or equivalent.

MBI 465/565 Microbial and Molecular Genetics Laboratory (2)
Laboratory methodology associated with experimental aspects of microbial genetics and recombinant DNA techniques. Prerequisite: BOT/ZOO 342, or MBI 445/545 or permission of instructor.

MBI 466/566 Bioinformatics Computing Skills (3)
Programming in Perl. Use of BLAST and BioPerl Bioinformatics Toolbox. Emphasis placed on biological database design, implementation, management, and analysis. Prerequisites: programming course and BOT/MBI/ZOO 116, or BOT/ZOO 342, or permission of instructor. Cross-listed with BOT/CSE/ZOO.

MBI 475/575 Microbial Ecology: Exploration of the Diverse Roles of Microorganisms in Earth's Ecology (3)
Integrative examination of the evolution of life, distribution and abundance of microorganisms, and biogeochemical cycles leading to the discovery of principles used for societal applications such as water quality management and bioremediation. Prerequisites: MBI 202 and CHM 242 or permission of instructor.

MBI 480 Departmental Honors (1-3; maximum 6)
Departmental honors may be taken for a minimum of one semester hour and a maximum of six semester hours in two semesters of student's senior year. (MPC 480C is a Miami Plan Capstone in conjunction with MBI 490C)

MBI 485/585 Bioinformatics Principles (3)
Concepts and basic computational techniques for mainstream bioinformatics problems. Emphasis placed on transforming biological problems into computable ones and seeking solutions. Cross-listed with BOT/ZOO. Prerequisite: BOT/MBI/ZOO 116 or MBI 201 or BOT/ZOO 342 or CHM 332 or CHM 433 or permission of instructor.

MBI 487, 488, 489 Clinical Laboratory Science Practicum (8, 12, 12) MPC
Off-campus, structured sequence of laboratory and lecture rotations through clinical chemistry, hematology, immunohematology, immunology, microbiology, molecular, and other emerging diagnostics laboratories. Structured lecture criteria accompany the corresponding laboratory rotations.

MBI 490 Undergraduate Seminar (1; maximum 4)
Discussion by undergraduate majors and staff of current topics in selected areas. Prerequisite: 20 hours of microbiology. (MPC 490C is a Miami Plan Capstone in conjunction with MBI 440C or MBI 477C or MBI 480C)

MBI 495/595 Bacterial Cellular and Developmental Biology (3)
Focuses on the biology of bacteria at the cellular level, including regulation of cell shape, cell division, motility, development and differentiation, and interactions with other cells, including life in a biofilm and in association with symbionts. Prerequisites: MBI 202.

MBI 605 Advanced Molecular Biology (3)
In-depth study of genome organization, rearrangement, replication, and expression in prokaryotic and eukaryotic cells and their viruses, with an emphasis on regulatory mechanisms. Prerequisite: graduate status course in molecular genetics, biochemistry, or cell biology, and permission of instructor. Cross-listed with BOT/ZOO.

MBI 606 Advanced Cell Biology (3)
Advanced level study of molecular basis of prokaryotic and eukaryotic cell structure/function relationships. Prerequisite: graduate status, course in molecular genetics, cell biology, or biochemistry, and permission of instructor. Cross-listed with BOT/ZOO.

MBI 615 Communicating Science: Papers, Proposals, and Presentations (2)
Introduces the principles of scientific writing for the biological sciences. Students practice writing grant proposals and papers and prepare graphic presentation of data for poster and oral presentations. Offered infrequently.

MBI 630 Microbiology for Teachers (4)
Survey of the diversity of microorganisms in nature, their unique metabolic properties, their usefulness in recombinant DNA technology, gene engineering and industrial microbiology, their involvement in selected disease processes, including AIDS and other sexually transmitted diseases, cancer and immune response. Prerequisite: primary or secondary school teacher with background in biological sciences. Summer only.

MBI 640 Infectious Disease Microbiology for Teachers (3)
Discussion of infectious diseases, the microorganisms that cause them and the hosts that they affect, with emphasis on pathogenesis, host responses, epidemiology, and social impact. Prerequisite: primary or secondary school teacher with background in biological sciences. Summer only.

MBI 640L Infectious Disease Microbiology Laboratory for Teachers (1)
Introduces junior high and high school biology teachers to laboratory approaches used by microbiologists for understanding infectious diseases and pathogens that cause them. Fosters firsthand understanding of the research basis for and the investigative nature of, clinical microbiology and assists in development of insight into how microorganisms cause infectious diseases. Co-requisite: MBI 640. Summer only. Offered infrequently.

MBI 650 Seminar in Molecular Biology (1)
Discussion of current literature in molecular biology. Prerequisite: graduate standing. Cross-listed with BOT/CHM/ZOO. Offered every semester.

MBI 671 Population and Community Ecology (4)
Principles and applications of population and community ecology: population dynamics, direct and indirect species interactions, food webs, and species diversity. Prerequisites: at least one course in general ecology. A course in calculus is recommended. Cross-listed with BOT/ZOO.

MBI 672 Ecosystem and Global Ecology (4)
Structure, dynamics and management of ecosystems and the biosphere, including food web interactions, nutrient cycling, ecosystem functioning, and biogeochemical cycles at local, regional and global scales. Prerequisites: at least one course in general ecology and general chemistry. Cross-listed with BOT/ZOO.

MBI 688 Biological Science Education (3)
Designed to develop the knowledge, skills, and confidence to be an effective biology teacher at the college level. Students will be introduced to modern teaching techniques, peer evaluation as a means of teacher development, and reflective practice. Each student will develop a teaching philosophy statement as part of the course. Prerequisites: graduate status in a biology department or permission of instructor. Cross-listed with BOT.

MBI 689 Pedagogy in Microbiology for Graduate Students (1)
Introduction of new graduate students to the role of the graduate teaching assistant. Summer only.

MBI 690 Graduate Seminar (1; maximum 8)
Discussions of current research and literature by graduate students and faculty.

MBI 700 Research for Master's Thesis (1-10; minimum 6, maximum 12)

MBI 710 Graduate Research Problems (1-10; maximum 16)
Prerequisites: graduate standing and permission of instructor.

MBI 750 Advanced Topics in Microbiology (1-3; maximum 36)
Prerequisites: graduate standing and permission of instructor. Study of special topics from current research in the following areas:
750A Pathogenic Microbiology
750B Immunology
750C Microbial Physiology
750E Microbial and Molecular Genetics
750F Microbial Ecology

750H Virology
750I Bacterial Cell Biology

MBI 790 Research in Microbiology (1-16; maximum 20)
Pre-candidacy doctoral research. Prerequisite: admission to the Ph.D. program.

MBI 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60 depending on department requirements)

MUSIC COURSES (MUS-Fine Arts)

Note:
1. The following music history and literature courses require a reading knowledge of music: 311-312, 405, 427, 457-458, 461, 481-482, 505, 527, 557-558, 561, 621, 651.
2. Applied music courses are listed at the end of this section.

MUS 100 Ensembles (1-2; may be repeated for credit)

MUS 100A Collegiate Chorale (2)
Mixed chorus of 75 to 125 voices. Audition not required. May be repeated for credit.

MUS 100B Men's Glee Club (2)
Membership: 75. May be repeated for credit.

MUS 100C Symphony Orchestra (2)
Open to all students by audition only. Membership: 80 string, wind, and percussion players. Study and performance of main symphonic literature. May be repeated for credit.

MUS 100D Choraliers (2)
Women's chorus. Membership:80. May be repeated for credit.

MUS 100E Marching Band (2)
Membership: 200 wind and percussion players. May be repeated for credit.

MUS 100F Symphony Band (2)
Membership: 72 wind and percussion players. May be repeated for credit.

MUS 100G Wind Ensemble (2)
Membership: 55 wind and percussion players. May be repeated for credit.

MUS 100H Chamber Music Brass (1)
Participation in the performance of brass chamber music with such groups as French horn quartet, trumpet trio and quartet, brass quintet, trombone quartet. May be repeated for credit.

MUS 100I Chamber Music Strings (1)
Study and performance of major chamber works for string quartets, string trios and string quartets, and compositions for strings with piano and other instruments. May be repeated for credit.

MUS 100J Chamber Music Piano (1)

MUS 100K Jazz Ensemble (1)
Open to all students by audition only. Contemporary jazz ensemble literature is covered in this performance group. Two sections are available: advanced and intermediate. May be repeated for credit.

MUS 100L Balinese Gamelan Ensemble (1)
Introduction to Balinese culture through music and dance. Objectives are achieved through live performance presentations both on and off campus. No prior music reading skills are required. The ability to perform rhythmic music and to understand basic principles of music are the only prerequisites.

MUS 100M Percussion Ensemble (1)
Open to all with necessary proficiency. Admittance determined by audition or instructor recommendation. Study and performance of literature for varied combinations of percussion instruments. Literature ranges from percussion ensemble classics to pop arrangements. May be repeated for credit.

MUS 100N Steel Drums (1)
Open to all students by audition only. Two sections are available: advanced and beginner. Advanced ensemble focuses on performance of steel band literature; beginner ensemble is for students with little or no experience playing steel drum instruments. May be repeated for credit.

MUS 100O Opera Production (2)

MUS 100P Chamber Orchestra (1)
Open to all students by audition or instructor recommendation. Membership: 30 string, wind, and percussion players. Study and performance of the main chamber orchestra literature. May be repeated for credit.

MUS 100Q Chamber Singers (2)
Chamber choir; 20-25 mixed voices. Auditions open to all students. May be repeated for credit.

MUS 100R Chamber Winds (1)

MUS 100S Cello Choir (1)
Open to all with necessary proficiency. Admittance determined by audition or instructor recommendation. Study and performance of literature for multiple cellos, including original works and arrangements. May be repeated for credit.

MUS 100U Basketball Band (1)
Open to all students. Ensemble performs for on-campus basketball activities.

MUS 100V Hockey Band (1)
Open to all students. Ensemble performs for all on-campus men's ice hockey activities.

MUS 100W Marching Band Auxiliaries (1)
Open only to members of the marching band auxiliaries (Color Guard and Shakerettes). Concurrent registration in MUS 106 is required.

MUS 100X Marching Band Percussion Ensemble (1)
Open to all necessary proficiency. Admittance determined by audition or instructor recommendation. Study and performance of literature for varied combinations of percussion instruments. Literature ranges from percussion ensemble classics to pop arrangements. May be repeated for credit.

MUS 101/102 Theory of Music (2, 2)
Understanding of the elements of music, directed toward intelligent and authoritative performance, as well as creative writing in music composition. Includes fundamentals of music, diatonic partwriting, and analysis. Final project in MUS 102 is an original composition using the principles studied. Recommend taking concurrently with MUS 151-152. Required of all music majors and open to all students with permission of instructor. Students must be able to read music fluently in at least one clef before enrolling in this course. MUS 101 is a prerequisite for MUS 102.

MUS 110 Vocal Accompanying (1)
Practical experience in studio accompanying of voice students.

MUS 111 Lab Band (0-1)
Laboratory ensemble for instrumental music education majors. Students reinforce and improve fundamentals of instrumental performance, expand technical and musical abilities, and develop and refine skills necessary for effective conducting and teaching. Prerequisite: junior students must have completed MUS 352.

MUS 112 Lab Choir (0-1)
Introduction to the role of the choral conductor/teacher in the junior and senior high school.

MUS 117/118 Class Voice (2, 2)
Fundamentals of vocal production, song literature, and interpretation designed either as terminal course or to prepare for private study. Class approach combines lecture with group and individual singing. Literature assigned to students according to individual interests and needs.

MUS 120 Instrumental Accompanying (1)
Practical experience in studio accompanying of solo instruments: woodwinds, brass, or strings.

MUS 135 Understanding Jazz, Its History and Context (3) MPF, MPT
History of jazz in the United States from its origins to the present. Emphasis placed on developing aural perceptions of stylistic differences between historical periods and significant performers. IIA, IIIA, H.

MUS 140 Recital Requirement (0)
Required recital attendance as nonparticipant for undergraduate music majors consisting of seven semesters of verified attendance at minimum of 12 Department of Music or University Performing Arts Series programs per semester.

MUS 146 Vocal/General Music Methods and Materials (1)
Introduction to vocal, choral, and general music concepts and teaching techniques. Open to instrumental music education majors only.

MUS 151/152 Sight Singing and Dictation (1, 1)
Practice in rhythmic and melodic reading of music and its reproduction through singing. Dictation of rhythms, melodies, and tonal harmonic progressions. Focuses primarily on diatonic tonality. Required of all music majors. Recommend taking concurrently with MUS 101-102.

MUS 160 Functional Piano I (1)
Beginning level group piano instruction for music majors preparing to meet the piano proficiency requirement. Open to music majors only.

MUS 161 Functional Piano II (1)
Elementary level group piano instruction for music majors preparing to meet the piano proficiency requirement. Open to music majors only. Prerequisite: MUS 160 or permission of instructor.

MUS 175 Introduction to Music Education (1)
Scope of music education in early childhood, elementary, and secondary schools; licensure and degree requirements; assessment of personal and musical competencies/career counseling; foundations/philosophy of music education; introduction to computers in music education. Open to Music majors only.

MUS 181 Music in our Lives (3)
This is an experience-driven course in which students will attend local musical performances, think critically about what they hear and the circumstances in which music is made, and ponder the influence of globalization, technology, and other factors on their listening habits.

MUS 185 The Diverse Worlds of Music (3) MPF
A general survey of traditional West African music and its off springs in America from slavery to the early 1990s. Major emphasis is placed on the contributory, sociological settings for significant musical forms and styles. IIA, B, IIIB. CAS-B.

MUS 189 Great Ideas in Western Music (3) MPF
Development of a sequential listening skill and a descriptive vocabulary used in a study of the style of Western Art Music from Middle Ages through 20th century. IIA, H. CAS-B.

MUS 201/202 Theory of Music (2, 2)
Continuation of MUS 101-102. Adds the study of chromatic harmony and analytical writing. Final project in MUS 202 is a comprehensive analysis of an entire piece. Recommend taking concurrently with MUS 251-252. Prerequisite: MUS 102. MUS 201 is a prerequisite for MUS 202.

MUS 204 Brazilian Culture Through Popular Music (3)
Through music, lyrics and rhythms this course raises questions about history, national identity, social, religious, and ethnic diversity in Brazil. Cross-listed with BWS/FST/LAS/POR 204.

MUS 218 Beginning Guitar (1)
Covers basic technique for guitar as it applies to melodic playing and accompaniment of popular songs with different strumming techniques. Includes tablature reading, tuning the guitar, playing by ear, improvisation, and efficient practicing habits. Offered only on the Middletown campus.

MUS 218A Intermediate Guitar (1)
Requires a solid base of technique. The course introduces note reading, finger-picking and bar chords. Offered only on the Middletown campus

MUS 221 Composition Software-Basic Skills in Software for Music Printing and Sequencing (1)
Introduces students to basic computer software in music composition and arranging. Included are one each of programs in music printing and music sequencing, including use of the computer interface protocol Musical Instrument Digital Interface (MIDI). Prerequisite: MUS 102 or equivalent.

MUS 231 Class Instruments (Brass) (1)
Class instruction in brass instruments of the symphony orchestra and band. Open to music majors only.

MUS 232A Class Instruments (Woodwinds I) (1)
Class instruction in woodwind instruments of the symphony orchestra and band. Open to music majors only.

MUS 232B Class Instruments (Woodwinds II) (1)
Continuation of MUS 232A.

MUS 233 Class Instruments (Percussion) (1)
Class instruction in percussion instruments of the symphony orchestra and band. Open to music majors only.

MUS 234A Class Instruments (Strings I) (1)
Class instruction in string instruments of the symphony orchestra and guitar. Open to music majors only.

MUS 234B Class Instruments (Strings II) (1)
Continuation of MUS 234A.

MUS 235 Lyric Diction (2)
Study of phonetic structure of English and Latin as applied to singing. Instruction and practice in pronunciation and articulation. Study and performance of examples from vocal literature.

MUS 236 Lyric Diction (2)
Study of phonetic structure of German, Italian, and French as applied to singing. Instruction and practice in pronunciation and articulation. Study and performance of examples from vocal literature. Prerequisite: MUS 235.

MUS 248 Class Instruments: Brass, Woodwinds, Strings (1)
Brass, woodwind, and string instrument instruction for choral/general music education student.

MUS 249 Class Instruments: Percussion, Guitar (1)
Development of necessary expertise to use guitar and percussion instruments in choral and general music classes.

MUS 251/252 Sight Singing and Dictation (1, 1)
Continuation of MUS 151-152. Focuses primarily on chromatic and extended chromatic tonality and modulation. Required of all music majors. Recommend taking concurrently with MUS 201-202. Prerequisite: MUS 151-152.

MUS 260 Functional Piano III (1)
Early intermediate level group piano instruction for music majors preparing to meet piano proficiency requirement. Open to music majors only. Prerequisite: MUS 161 or permission of instructor.

MUS 261 Functional Piano IV (1)
Intermediate level group piano instruction for music majors preparing to meet piano proficiency requirement. Students will fulfill the piano proficiency requirement by passing the final examination. Open to music majors only. Prerequisite: MUS 260 or permission of instructor.

MUS 266 Basic Music Skills and Teaching Techniques for the Early Childhood Teacher (3)
Music education for early childhood teachers including philosophy, basic music skills and teaching techniques, music learning, development, and evaluation.

MUS 275 Sophomore Practicum in Music Education (1)
History and development of music education in America; career counseling; continuation of the development of computer skills; continuation of an examination of the scope of music education in the schools, prekindergarten through high school; use of audiovisual materials/equipment in the music classroom; musicianship for music educators. Prerequisite: completion of MUS 175 or permission of instructor.

MUS 285 Introduction to African American Music (3)
This course is a general survey of traditional West African music and its offsprings in America from slavery to the early 1990s. Major emphasis is placed on the contributory, sociological settings for significant musical forms and styles.
Cross-listed with AMS. Prerequisite(s): MUS/AMS 135 or MUS 185.

MUS 287 Enter the Diva: Women in Music (3) MPT
American women in music from 1900 to present. Women have made considerable contributions to the various genres and traditions that define American music. From popular forms to concert music there are numerous women who have constructed a musical discourse that chronicles their experiences in America and their conceptions of womanhood. This course is designed to chronicle the experiences of these women musicians and vocalists and discuss their musical approaches. Discussions include traditional music practices as well as contemporary popular music styles. Prerequisite: MUS 135, 185 or 189, or permission of instructor.

MUS 301 Counterpoint (3) MPT
Writing of species counterpoint and its application to common practice harmony. Project compositions in the style and smaller forms of 18th century polyphony. Prerequisite: MUS 201.

MUS 302 Analysis (3)
Study of advanced analytical methods in post-tonal repertoire, including set theory, networks, centricity, and narrative. The relationship between analysis and performance is emphasized.

Prerequisite: MUS 301 (or MUS 202 and permission of instructor), MUS 252.

MUS 303 Electronic Music (3) MPT
Electronic music history, literature, styles, and studio techniques with emphasis on original expression using digital, editing, multi-track recording, and basic synthesis concepts. Designed for the undergraduate junior or senior, but open to all students. Formal music training not required.

MUS 304 Commercial Applications in Composing/Arranging (3)
Focuses on composing and arranging music in various commercial music styles, utilizing acoustic and MIDI settings. Aspects of the music industry are covered along with information intended to assist the student in identifying and fulfilling personal ambitions in commercial music. Prerequisite: MUS 201 or demonstrated proficiency in the diatonic/chromatic harmony of the common practice period.

MUS 311/312 History of Western Music (3, 3)
History of Western music from antiquity to the present placed in global context. Music and society; analysis of representative styles from scores. Prerequisite: MUS 201-202 or permission of instructor.

MUS 351 Choral Techniques (2)
Methods, materials, and techniques for teaching choral ensembles at the secondary level. Overview of choral literature appropriate for secondary level choirs. Prerequisite: MUS 202 or permission of instructor.

MUS 352 General Conducting (2)
Principles of baton technique, study of musical factors involved in training instrumental and choral groups, score study, rehearsal techniques. Prerequisite: completion of all first- and second-year music courses.

MUS 353 Choral Conducting (2)
Principles of conducting technique, study of musical factors involved in training choral groups, score study, rehearsal techniques. Prerequisite: MUS 352.

MUS 354 Instrumental Conducting (2)
Secondary school instrumental teaching and rehearsal techniques and advanced level conducting skills. Prerequisite: MUS 352.

MUS 355 General Music Teaching Techniques - Early Childhood and Elementary (3)
Music teaching techniques appropriate for effective teaching of general music at early childhood, elementary, and middle school levels. Prerequisite: completion of MUS 175, 275.

MUS 356 Secondary General Music Techniques (1)
Music education techniques appropriate for effective teaching of secondary-level general music courses. Prerequisite: MUS 175, 275.

MUS 358 Marching Band Techniques (2)
Techniques of marching band procedure, materials, problems, and administration.

MUS 359 Instrumental Methods - Elementary and Secondary (4)
The teaching of elementary and secondary instrumental music, including bands and orchestras. Includes foundation/organization of beginning and advanced programs; literature selection; rehearsal techniques; goals, program objectives, student perception and performance; arranging for chamber groups; classroom management; clinical experience. Prerequisite: completion of all instrumental music education degree work through first five semesters.

MUS 371/372 Composition (3, 3) MPT
Composition in small forms for solo and chamber ensembles. Prerequisite: MUS 201-202, 251-252, and permission of instructor.

MUS 385 The Roots of Black Music: Blues, Gospel and Soul (3) MPT
Development of these music genres in America. In-depth analysis of stylistic differences and musical and cultural relationships between each. Prerequisite: MUS 285 or permission of instructor.

MUS 386 The History and Development of Hip Hop Culture in America (3) MPT
Surveys development of the Hip Hop culture (rapping, graffiti art, breaking, DJing) from black vernacular forms in Africa and America. Prerequisite: MUS 285, 385 or permission of instructor.

MUS 402/502 Arranging (3)
Orchestration for wind, string, and percussion groups as used at the primary and secondary school level. Focuses on the principles of score layout/arranging for concert band and orchestra. Offered infrequently.

MUS 404/504 Wind Band Ensemble Literature (3)
A survey of wind/band ensemble literature from the Middle Ages to the present, with particular emphasis on the accepted masterworks of the genre.

MUS 405/505 Choral Literature (3)
Literature of choral music from early Middle Ages to the present. Prerequisite: MUS 201-202 and 311-312, or junior standing and permission of instructor.

MUS 419/519 Supervised Teaching in Music (12)
Planned and supervised learning experience in which students demonstrate the knowledge, skills, abilities, and values appropriate to the teaching of students in educational settings. Frequent conferences with university supervisors and cooperating teachers. Completion of junior level courses work in music and music education with a cumulative g.p.a. of 2.50 or a g.p.a. of 2.75 in all music courses counting only one ensemble per semester.

MUS 420/520 Opera Coaching (1)
Preparation of solo vocal repertoire. Prerequisite: permission of instructor.

MUS 427/527 Music of the 20th Century (3)
Intensive study of major works, compositional approaches, and cultural context of music in the 20th century (1900-present). Prerequisite: MUS 201-202 and 311-312, or junior standing in music with permission of instructor.

MUS 430/530 Piano Pedagogy (2)
Study of contemporary methodologies for teaching beginning, elementary, and early intermediate level piano students. Assignments and lectures include critical analysis of teaching materials; considerations for literature selection; the business aspect of operating an independent studio; the use of piano lab and technology in teaching group classes. Observations of individual lessons and group piano classes are required. Open to piano majors or by permission of instructor.

MUS 433/533-434/534 String Instrument Pedagogy (1, 1)
Fundamental problems involved in teaching string instruments. Critical analysis of teaching materials. Observation and practice in private teaching required of all string majors. Prerequisite: senior standing in applied music. Offered infrequently.

MUS 442T/444T Applied Music
Etudes and technical studies. Mozart Concerto in C Major for Flute and Harp, Ravel Introduction and Allegro. Solos such as Pescetti Sonata in C Minor, Salzedo Whirlwind and Scintillation.

MUS 451/551-452/552 Advanced Sight Singing and Dictation (1, 1)
Required of all music performance majors. Continuation of MUS 251-252, with addition of atonal and jazz idioms. Prerequisite: MUS 251-252.

MUS 456/556 Vocal Pedagogy (2)
Structure and function of the singing voice. Techniques for teaching voice. Overview of solo vocal materials for young singers. Prerequisite: MUS 235; two semesters of class or applied voice.

MUS 457/557-458/558 Piano Literature (3, 3)
Survey of solo piano literature from 1700 to the present. Historical and analytical approach to periods and styles. Undergraduate prerequisite: MUS 189 and 202. Graduate prerequisite: MUS 302 and 312 or equivalent.

MUS 461/561 American Music (3)
Music in American cultural life, including all levels and types of cultivated and vernacular expressions. Native American musical traditions through our present musical diversity. Prerequisite: MUS 201-202, 311-312, or permission of instructor.

MUS 471/571-472/572 Composition (3, 3)
Creative writing in smaller forms. Provides guided experience in creating original pieces in shorter forms for various media. Prerequisite: MUS 301, 371-372. Offered infrequently.

MUS 475 Senior Practicum in Music Education (3) MPC
Assessment, synthesis, critical analysis, and evaluation of undergraduate experiences relative to the following areas of music education: philosophy, ethics, and standards of the profession. Prerequisite: completion of all third-year courses in music education degree program or permission of instructor.

MUS 481-482 Advanced Studies in Special Subjects (1-4, 1-4)
Opportunity for qualified upperclass, graduate, and special students to pursue individual research. Approval of department chair required. Offered infrequently.

MUS 490/590 Special Topics in Music (1-4; maximum 12)
Focused study of topics relating to music history, music education, music literature, or music theory, including the study of genres, pedagogy, the history of styles, and the analysis of music. May be repeated for credit when content changes.

MUS 491-492 Senior Recital (2, 2)
Public performance of a solo recital.

MUS 493 Capstone/Senior Recital: Preparation and Performance (3) MPC
Preparation and performance of a senior recital. Topics studied include creative, artistic, and technical aspects of performance preparation; theoretical, analytical, historical, and aesthetic aspects of the works being performed; and the relation between your performance and the public. Work one-on-one at a minimum of once a week with the faculty member assigned to your performance medium and attend specific seminars as determined by the syllabus prepared for your performance medium. Complete a final written project in conjunction with performance. Such projects include one of the following: a detailed journal of your performance preparation, a public lecture in conjunction with the recital, or extensive and detailed program notes. Perform all or part of the prepared recital in a venue outside the university setting. Co-requisite: MUS 442 or 444.

MUS 610 Special Project (1-4)
Conference course offering opportunity for work in specialized areas. Course may be repeated for credit.

MUS 611 Research Project (3-4)
Research paper in areas related to student's major. Required for majors in performance and music education.

MUS 621 Graduate Research in Music (3)
Bibliography and research methodology applied to selected historical subjects. Prerequisite: graduate standing in music.

MUS 622 Teaching Elementary Music: Theory and Practice (3)
This course examines the nature of elementary general music (preK-6) with emphasis on curricular issues/approaches, child development, and learning theories as they affect teaching strategies and materials. It includes the development of children's musicianship, creativity, and thinking skills.

MUS 623 Integrating Multiculturalism into Music Curriculum (3)
Examines issues, approaches, and applications of teaching PreK-12th grade music classrooms utilizing music of diverse cultures. Emphasis on instructional models and hands-on experiences with selected world cultures (West African, Latin American, American Indian, Indonesian) will provide limited depth rather than breadth. Prerequisite: Bachelor's degree in music education.

MUS 626 Foundations of Music Education (3)
Intensive study of historical perspectives in music education, psychological and social foundations, philosophical and aesthetic rationale for music programs, and research skills using scholarly resources. Offered infrequently.

MUS 627 Recent Developments in Music Education (3)
Intensive study of the scope and sequence of curricular offerings in music and impact on pedagogy in music classrooms. Survey of technology, music of other cultures, current issues in music education, and administrative aspects of school music programs.

MUS 628 Research Problems in Music Education (3)
Research techniques applied to selected problems in vocal and instrumental teaching and supervision. Survey of research literature and procedures, use of library resources, and interpretation of results. Offered infrequently.

MUS 630 Advanced Ensemble (1-2; maximum 8)
Participation in choral, orchestral, or chamber music groups, with emphasis on techniques of coaching. Prerequisite: bachelor's degree in music or equivalent and permission of instructor. May be repeated for credit; maximum of 8 hours towards degree.

MUS 630A Collegiate Chorale (2)
Mixed chorus of 75 to 125 voices. Audition not required. May be repeated for credit.

MUS 630B Men's Glee Club (2)
Membership: 75. May be repeated for credit.

MUS 630C Symphony Orchestra (2)
Open to all students by audition only. Membership: 80 string, wind, and percussion players. Study and performance of main symphonic literature. May be repeated for credit.

MUS 630D Choraliers (2)
Women's chorus. Membership:80. May be repeated for credit.

MUS 630E Marching Band (2)
Membership: 200 wind and percussion players. May be repeated for credit.

MUS 630F Symphony Band (2)
Membership: 72 wind and percussion players. May be repeated for credit.

MUS 630G Wind Ensemble (2)
Membership: 55 wind and percussion players. May be repeated for credit.

MUS 630H Chamber Music Brass (1)
Participation in the performance of brass chamber music with such groups as French horn quartet, trumpet trio and quartet, brass quintet, trombone quartet. May be repeated for credit.

MUS 630I Chamber Music Strings (1)
Study and performance of major chamber works for string quartets, string trios and string quartets, and compositions for strings with piano and other instruments. May be repeated for credit.

MUS 630J Chamber Music Piano (1)

MUS 630K Jazz Ensemble (1)
Open to all students by audition only. Contemporary jazz ensemble literature is covered in this performance group. Two sections are available: advanced and intermediate. May be repeated for credit.

MUS 630L Balinese Gamelan Ensemble (1)
Introduction to Balinese culture through music and dance. Objectives are achieved through live performance presentations both on and off campus. No prior music reading skills are required. The ability to perform rhythmic music and to understand basic principles of music are the only prerequisites.

MUS 630M Percussion Ensemble (1)
Open to all with necessary proficiency. Admittance determined by audition or instructor recommendation. Study and performance of literature for varied combinations of percussion instruments. Literature ranges from percussion ensemble classics to pop arrangements. May be repeated for credit.

MUS 630N Steel Drums (1)
Open to all students by audition only. Two sections are available: advanced and beginner. Advanced ensemble focuses on performance of steel band literature; beginner ensemble is for students with little or no experience playing steel drum instruments. May be repeated for credit.

MUS 630O Opera Production (2)
Open to all students by audition or instructor recommendation. Membership: 30 string, wind, and percussion players. Study and performance of the main chamber orchestra literature. May be repeated for credit.

MUS 630P Chamber Orchestra (1)

MUS 630Q Chamber Singers (2)
Chamber choir; 20-25 mixed voices. Auditions open to all students. May be repeated for credit.

MUS 630R Chamber Winds (1)

MUS 633 Topics in 19th Century Music (3)
Advanced topical studies in romantic music, emphasizing music in sociological context, extensive repertory studies, and interpretive primary source reading. Offered infrequently.

MUS 635 Advanced Wind Band/Ensemble Conducting (2)
Advanced study of expressive conducting and rehearsal techniques and their application to the Wind Band/Ensemble repertoire. May be repeated for credit.

MUS 636 Advanced Choral Conducting (2)
Interpretation of choral music in large and small forms; emphasis on choral literature for school groups. Summer only.

MUS 640 Concepts in Music History (3)
Investigates philosophies and methodologies of teaching and learning music history in the 21st century. Study of the current postmodern musical culture placed within the disciplinary contexts of new musicology, ethnomusicology, and traditional musicology. Case studies investigate the interconnections between postmodernity, musicology, and ethnomusicology.

MUS 642 Applied Music (2; maximum 12)
Individual instruction for graduate students in music in the major performing medium. May be repeated for credit. Prerequisite: approval of graduate music faculty. Offered infrequently.

MUS 644 Applied Music (4)
Same as MUS 642. Required of all applied music majors at graduate level.

MUS 661 Graduate Analysis (3)
Investigation of music literature from analytic view. Pieces from 18th through 20th centuries studied with respect to structure and compositional technique. Prerequisite: successful completion of Music Theory Diagnostic Examination or permission of instructor.

MUS 682 Repertory (2)
Preparation of extensive and balanced repertory of compositions. Prerequisite: MUS 642 or 644 and permission of instructor.

MUS 684 Repertory (4)
Same as MUS 682.

MUS 690 Graduate Recital (1-2)
Public performance of a solo recital of professional caliber. Required of all applied music majors at the graduate level. Prerequisite: approval of graduate music faculty.

Applied Music

You must audition to qualify for studio lessons in applied music. Requirements with course descriptions for each area (voice, piano, etc.)

Study in applied music consists of one-hour private lessons, given weekly, and periodic studio classes. Student majoring in Music Performance enroll for MUS 144, 244, 344, 444, 544, 644 and receive 3-4 credits. All other majors, minor or elective study students enroll for MUS 142, 242, 343, 443, 542 and receive 2 credits.

Applied music course numbers designate level of instruction (freshman through senior) and number of credit hours per semester. The first digit of each number shows the level of instruction, and the third shows the number of credit hours. The letter following the number designates the specific applied music area, as follows:

A- Voice	K- Trombone
B- Piano	L- Euphonium
D- Flute	M- Tuba
E- Clarinet	N- Percussion
F- Saxophone	O- Violin
G- Oboe	P- Viola
H- Bassoon	R- Cello
I- Trumpet	S- String Bass
J- French Horn	T- Harp

For example, MUS 142A signifies freshman-level voice for two credit hours per semester.

Voice

MUS 142A/144A Applied Music
Study of basic principles of singing, including posture, breath control, vocal freedom, resonance, and diction. First semester repertoire is at the discretion of the instructor. Second semester repertoire for 142A is a minimum of three songs (memorized); for 144A is a minimum of five songs (memorized).

MUS 242A/244A Applied Music
Continuation of study of principles of singing. Repertoire requirement for 242A is four songs in two languages (memorized) each semester; for 244A is six songs in two languages (memorized) each semester. Prerequisite: two semesters of 142A or 144A and successful completion of the sophomore-standing examination.

MUS 342A/344A Applied Music
Study of advanced singing technique; increased emphasis on literature and performance. Repertoire requirement for 342A is five songs in three languages (memorized)
each semester; for 344A is literature for the junior recital. Prerequisite: two semesters of 242.A or 244A and successful completion of junior-standing examination.

MUS 442A/444A Applied Music
Continuation of advanced singing technique. Repertoire requirement is literature for the senior recital. Prerequisite: two semesters of 342A or 344A.

Piano

MUS 142B/144B Applied Music
Introduction to piano technique and interpretation based on study of scales, arpeggios, and other standard pianistic patterns, as well as compositions from the standard repertoire, such as: Bach Inventions, and Preludes and Fugues from the Well-Tempered Clavier; Haydn, Mozart, and Beethoven sonatas; Chopin, Schumann, and Debussy character pieces; and Bartok Mikrokosmos.

MUS 242B/244B Applied Music
More advanced level study of materials, including technical exercises and repertory classifications in 142.B and 144.B; preparation for junior standing examination. Different repertoire assigned, learned, and performed each semester. Prerequisite: passage of the sophomore standing examination.

MUS 342B/344B Applied Music
Increasing presumption of student responsibility for mastering notational details and technical exercises. Emphasizes study of qualities of expressive depth and variety. May include preparation of junior and Thematic Sequence recitals.

MUS 442B/444B Applied Music
Most challenging undergraduate course of piano study. Emphasizes quick memorization of repertoire, physical ease in performance, and while respecting the composers' wishes, development of maximum variety and spontaneity of expressive style. Preparation of the senior recital as well as further polishing technical exercises.

Flute

Note: Admission audition requirement for music major: no specific repertoire requirement; technical proficiency of an advanced high school flutist.

MUS 142D/144D Applied Music
Studies for development of tone and technique; major and minor scales and arpeggios. Drouet 25 Etudes Celebres; Donjon Etudes de Salon; Karg-Elert 24 Caprices. Sonatas of Blavet, Handel, C.P.E. Bach, Koechlin 14 pieces pour Flute et Piano; Bloch Suite Modale; and works of comparable difficulty.

MUS 242D/244D Applied Music
Continuation of tone studies. Orchestral studies (memorized). Anderson op. 15, op. 30, and op. 63; Etudes of Boehm, Altes. Participation in two class recitals or equivalent. J.S. Bach Sonatas, Suite in B Minor; Hindemith Sonata; Henze Sonatina; Faure Fantasie; Mozart Concerti; Blavet Concerto in A minor; and works of comparable difficulty.

MUS 342D/344D Applied Music
Tone studies, orchestral studies (memorized). Etudes of Genzmer, Jean, Boehm. Participation in two class recitals or equivalent; J.S. Bach Sonatas, Hue Fantasie, Griffes Poem, Burton Sonatina, Copland Duo, Hindemith Acht Stucke, Ibert Piece, Martin Ballade, and works of comparable difficulty.

MUS 442D/444D Applied Music
Tone studies, orchestral studies (memorized). Participation in one class recital, presentation of senior recital. Bozza 14 Arabesques, Anderson Virtuoso Studies, Jolivet Chant du Linos, Nielson Concerto, Pro- kofieff Sonata, Dutilleux Sonatina, J.S. Bach Partita in A Minor, Messiaen Le Merle Noir, Ibert Concerto, Schubert Introduction and Variations, and works of comparable difficulty.

Clarinet

MUS 142E/144E Applied Music
Technical studies as needed: embouchure, breath control, hand and finger position, articulation, intonation, phrasing. Scales Studies Baermann Bk. III, Etudes from Rose, Klos Celebrated Method. Works by Weber, Mozart, Stamitz, Saint-Sans, Tartini, Brahms, Hindemith, and others. Reed work. All scales.

MUS 242E/244E Applied Music
Works by Mercadante, Arnold, Cahuzac, Finzi, Lutoslawski, or equivalent. French conservatory contest solos. Orchestral excerpts. All scales and additional technical work.

MUS 342E/344E Applied Music
Jeanjean Etudes, Cavallini 30 Caprices. Works by Spohr, Stravinsky, Debussy, Rossini, Bernstein, Poulenc, or equivalent. Orchestral excerpts. Transposition.

MUS 442E/444E Applied Music
Emphasis on repertoire. Works by Copland, Berg, Verdi, Manevich, Franaix, Nielsen, or equivalent. Contemporary techniques. Orchestral excerpts. Clarinet with electronics. Senior recital.

Saxophone

MUS 142F/144F Applied Music
Technical studies as needed; embouchure, breath control, hand and finger position and articulation. Studies by Klose, Mule Etudes after Berbiguier and after Samie. All major and minor scales. Pieces by Bozza, Bach, Leclair, Creston, or works of comparable difficulty.

MUS 242F/244F Applied Music
Mule Etudes after Terschak and after Ferling. Pieces by Handel, Ibert, Glazounov, etc. Technical exercises.

MUS 342F/344F Applied Music
Mule Etudes after Boehm, Tershak et Fursteneau; Lang Altissimo Etudes. Pieces by Maurice, Heiden, Bozza, Debussy, Noda, etc. Jazz style studies. Chamber music.

MUS 442F/444F Applied Music
Etudes by Lacour and Bozza. Pieces by Desenclos, Dubois, Bonneau, etc. Contemporary saxophone techniques. Chamber music. Orchestral excerpts. Preparation of senior recital.

Oboe

MUS 142G/144G Applied Music
Focuses on basic elements of tone production: breathing embouchure and articulation. Musicality. Reedmaking. All major and minor (3 forms) scales, Triad arpeggios. Articulation and melodic Studies from Barret Oboe Method, Salviani Scale Studies, Book II. Pieces: Handel Sonatas, Telemann Sonata in A Minor, Sammartini Sonata in G, Albinoni Concerti, Cimarosa Concerto, Haydn Concerto.

MUS 242G/244G Applied Music
Further refinement of tone and development of musicality. Reedmaking. All Major & Minor (3 forms)
Scales in broken 3rds. 7th Arpeggios. Sonatas from Barret Oboe Method. Selected duets. Pieces: Hindemith Sonata, Britten Metamorphoses after Ovid, Handel Concerto in G Minor, Vivaldi Concerti, Marcello Concerto.

MUS 342G/344G Applied Music
Continuation of technical studies. Reedmaking. Study of English horn. Grand Studies from Barret Oboe Method. Pieces: J.S. Bach Sonata in G Minor, BWV MUS 1020, Hummel Adagio, Theme and Variations, Saint-Sans Sonata, Mozart Concert.

MUS 442G/444G Applied Music
Orchestral studies. Study of baroque ornamentation. Study of Oboe d'amore. Oboe pedagogy. Ferling 48 Famous Studies. Pieces: Schumann Romances, Poulenc Sonata, Dutilleux Sonata, Mozart Oboe Quartet, Strauss Concerto. Selected contemporary works. Preparation of recital program.

Bassoon

MUS 142H/144H Applied Music
Basic technical studies; proper breath control, tongue placement, vibrato, embouchure, reed making. Weissenborn Studies, Ozi Caprices, solos of difficulty of the Galliard Sonatas.

MUS 242H/244H Applied Music
Continuation of technical studies and basic elements of playing. Ferling 48 Famous Studies, Vivaldi Concerto in D, Handel Sonatas.

MUS 342H/344H Applied Music
Piard Arpeggio Studies, Stadio Orchestral Studies, Orefici Melodic Studies, Saint-Saens Sonata, Etler Sonata or works of comparable difficulty including some study of contemporary music for bassoon.

MUS 442H/444H Applied Music
Coverage of important orchestral literature and teaching materials, studies by Bozza, Bitsch, and Bianchi, Mozart and Weber Concerti, or works of comparable difficulty. Chamber music literature. Preparation of senior recital.

Trumpet

MUS 142I/144I Applied Music
Emphasis on tone production, articulation, and lip flexibility. Introductory work in Schlossberg, Daily Drills; Arban, Complete Method for Trumpet. Introduction to transposition. Study of etudes from Hering, 32 Etudes for Trumpet; Concone, Legato Etudes; and others. Technique: all major scales and arpeggios; etudes from Clarke, Technical Studies; introduction to multiple tongueing as in Arban, Complete Method for Trumpet.

MUS 242I/244I Applied Music
Concentration upon embouchure development using Schlossberg, Daily Drills; Irons, 27 Groups of Exercises; and others. Study of transposition and applications of basic technical skills in Sasche, MUS 100 Etudes or Caffarelli, MUS 100 Studi Melodici; Hering 28 Etudes, or equivalent in difficulty. Solo repertoire. Technique: all major and minor scales and arpeggios; single, double, and triple articulations in Arban, Complete Method for Trumpet; and Schlossberg, Daily Drills.

MUS 342I/344I Applied Music
Continuation of embouchure development in Schlossberg, Daily Drills; study of etudes by Sasche, Paudert, Concone, Bordogni, Vannetelbosch, Arban, Hering, Clarke, and others; continued study of solo literature; introduction of orchestral trumpet parts.

MUS 442I/444I Applied Music
Study of more advanced etudes including Charlier, 36 Etudes transcendentales; Brandt, Etudes for the Orchestral Trumpeter, Part II; and others. Solo literature by Barat, Bozza, Handel, Haydn, Hummel, Hindemith, Kennan, Latham, Riisager, Torelli, and others. Study of orchestral trumpet parts. Preparation of senior recital.

French Horn

MUS 142J/144J Applied Music
Emphasis on elements of basic technique: embouchure, breathing, tone production. Develop individual routine to address range extension, endurance, flexibility. All major and minor scales, transposition study. Etudes from Kopprasch 60 Studies, Kling 40 Studies, Pottag- Andraud Method Book 1, Shoemaker Legato Etudes for French Horn, bass clef studies. Solo literature by Mozart, Saint-Saens, and others.

MUS 242J/244J Applied Music
Continuation of major-minor scales, transposition, and above basic studies. Begin orchestral excerpt studies. Etudes from Pottag-Andraud Method Book 2, Maxime-Alphonse Book 4, Gallay 12 Grand Caprices. Solos by Beethoven, Richard Strauss, Franz Strauss, others.

MUS 342J/344J Applied Music
Continuation of orchestral studies, problems in basic technique. Etudes by Gallay, Mueller, Maxime-Alphonse Book 5. Solo literature by Steven, Porter, Schumann, Dukas, Haydn, unaccompanied solo studies.

MUS 442J/444J Applied Music
Further orchestral studies. Advanced etudes: Maxime-Alphonse Book 6, Reynolds 48 Etudes, Barboteu. Solo literature: Jacob, Strauss, Bozza, Reynolds, Gliere. Preparation of senior recital.

Trombone

MUS 142K/144K Applied Music
Emphasis on tone production, articulation, and basic musicianship. Bordogni-Rochut Melodious Etudes Vol. I; Blazhevich Studies in Clefs. Solos by Guilmant, Barat, Galliard.

MUS 242K/244K Applied Music
Continued emphasis on tone production, articulation, and basic musicianship. Blazhevich Studies in Clefs; Bordogni-Rochut Melodious Etudes Vol. I and II; Schroeder MUS 170 Foundation Studies for Cello Vol. I. Solos by Galliard, de la Nux, Blazhevich.

MUS 342K/344K Applied Music
Blazhevich Studies in Clefs; Schroeder MUS 170 Foundation Studies for Cello Vol. I; Bach Cello Suites. Solos by Handel, Marcello, Bozza, Hindemith. Orchestral excerpts.

MUS 442K/444K Applied Music
Couillaud 30 Modern Etudes; Bitsch 15 Rhythmical Etudes; Bach Cello Suites. Solos by Milhaud, Serocki, Tomasi, Creston. Orchestral excerpts. Preparation of senior recital.

Euphonium

MUS 142L/144L Applied Music
Primary emphasis on tone production and advancement of technique: breath studies, range development, major and minor scales. Example: Stacy Scale Studies Bk. 3, Arban Bass Clef Studies, Pares Daily Exercises and Scales, solo works of the difficulty of Marcello Sonata in C Major, Muller Prelude, Chorale, Variations and Fugue, Presser Sonatina.

MUS 242L/244L Applied Music
Continuation of above studies. Example: Rochut Melodius Etudes, Koprrasch Sixty Selected Studies, solo works of difficulty of Galliard Sonatas One Through Six, Corelli Sonata VIII, Barat Andante and Allegro, Mozart Concerto No. 1.

MUS 342L/344L Applied Music
Continuation of above studies. Example: Handel aria con Variazioni, Schlossberg Daily Drills and Technical Studies, Cimera Concerto, Ropartz Andante and Allegro.

MUS 442L/444L Applied Music
Preparation of recital. Solo works of the difficulty of Busser Variations in D Flat Major, Tuthill Concerto, Hindemith Sonata for Trombone, Corelli Sonata in D Minor.

Tuba

MUS 142M/144M Applied Music
Primary emphasis on tone production and advancement of technique: breath studies, range development, major and minor scales. Example: Tyrrell Advanced Studies for Tuba, Arban Bass Clef Studies, Bell Daily Routines for Tuba, solo works of the difficulty of Bach-Bell Air and Bourree, Marcello Sonata in C Major.

MUS 242M/244M Applied Music
Continuation of above studies. Example: Kopprasch Sixty Selected Studies, Cimera 73 Advanced Studies, solo works of the difficulty of Haddad Suite, Corelli Sonata in F Major, Mozart Horn Concerto No. 3, Beethoven-Bell Variations on a Theme by Handel.

MUS 342M/344M Applied Music
Continuation of above studies. Transposition studies. Solo works of the difficulty of Lebedev Concerto for Tuba, Presser Concerto, Mozart Horn Concerto, Hogg Sonatina, Bencriscutto Concertino.

MUS 442M/444M Applied Music
Preparation of recital. Solo works of the difficulty of Persichetti Serenade No. 12, Vaughan Williams Concerto for Tuba, Vivaldi Concerto in A Minor, Wilder Sonata, orchestral excerpts. Preparation of senior recital.

Percussion

MUS 142N/144N Applied Music
Snare drum: development of rudimental and concert styles through study of rolls (double and triple stroke, multiple bounce); grace note rudiments (flams, drags, and ruffs); others from PASIC 40 International Rudiment list; and sight reading. Method books: Stick Control, George L. Stone; Modern School for Snare Drum, Morris Goldenberg; Standard Snare Drum Method, B. Podemski; others, Garwood Whaley; concert and rudimental solos from O.M.E.A. approved list for solos and ensemble contest. Keyboard instruments: major and minor scales played two octaves in all keys; major, minor, augmented, and diminished 7th broken chord patterns in all keys; selected warm ups; repertory appropriate to level; sight reading; introduction to four mallet techniques. Method books: Modern School of Xylophone, Marimba, and Vibraphone, Morris Goldenberg; Modern Mallet Methods, Phil Kraus; Mental and Manual Calisthenics, Elden Bailey; Instruction Course for Xylophone, George L. Green; Method for Movement for Marimba, Leigh H. Stevens; others, Garwood Whaley; solos from OMEA approved list. Tambourine, triangle, cymbals: basic performance techniques, ensemble repertoire.

MUS 242N/244N Applied Music
Timpani: tone production, types of articulations, interval tuning, cross sticking, roll development, analysis of physical properties of drum sticks, sight reading. Method books: Modern Method for Timpani, Saul Goodman; Timpani Method, Alfred Friese. Keyboard instruments: advanced techniques and repertoire for four mallet, vibraphone techniques (e.g., chord studies, muffling, improvisation studies). Method book: Vibraphone Technique, David Friedman.

MUS 342N/344N Applied Music
Advanced studies and development of recital repertory keyboard instruments: contemporary repertory including concertos and unaccompanied works by Stout, Abe, Stevens, and others. Snare Drum: advanced repertory for concert and rudimental styles, works by Benson, Colgrass, and others. Timpani: repertory from works by Beck, Hinger, Carter, and others.

MUS 442N/444N Applied Music
Afro-Indo-Latin percussion methods: from books by Morales, Sabanovich, and Reed. Drum set: from books by Chapin, Reed, Latham, Soph, and Erskine. Orchestral excerpts. Repertoire for senior recital.

Violin

MUS 142O/144O Applied Music
Technical facility in scales, arpeggios, and violin studies. Sonatas and concerti of the baroque, classical, or romantic repertoire.

MUS 242O/244O Applied Music
Violin studies. Baroque, classical, and romantic concerti and sonatas, and other solo compositions.

MUS 342O/344O Applied Music
Violin studies. Baroque, classical, romantic, and contemporary concerti, sonatas, and solo pieces. Preparation of a half recital required of performance majors.

MUS 442O/444O Applied Music
Advanced technical studies. Preparation of senior recital including composition of all major styles.

Viola

MUS 142P/144P Applied Music Scales
three octaves, arpeggios. Etudes: Sevick (bowing), Mazas, Kayser, position studies. Repertoire level: Bach, Solo Suite, G Major, Hoffmeister, Telemann, Zelter, Concerto, Marcello, Sonatas.

MUS 242P/244P Applied Music Scales
double stops, broken thirds. Etudes: Kreutzer, Bruni, Schradieck. Repertoire level: J.C. Bach, Stamitz, Handel Concerto, Bach, Solo Suites in D Minor, C Major, Hummel Fantasy.

MUS 342P/344P Applied Music Scales
Etudes: Kreutzer, Sevcik, op. 8, Campagnoli. Repertoire level: Bloch, Suite Habraique, Bach, Gamba Sonatas, Reger, Suites.

MUS 442P/444P Applied Music Scales
Etudes: Rode, Kreutzer. Repertoire level: Weber, Andante and Rondo Ungarese, Hindemith, Der Schwanendreher, Bartok, Concerto, Walton, Concerto, Brahms, Sonatas, Schubert, Arpeggione, Sonata.

Cello

MUS 142R/144R Applied Music
Technical facility in scales, arpeggios. Studies: sonatas, concerti, and solo pieces of the baroque, classical, and romantic repertoire. Orchestral repertoire.

MUS 242R/244R Applied Music
Technical facility in scales, arpeggios. Studies: sonatas, concerti, and solo pieces of the baroque, classical, and romantic repertoire. Baroque solo suites. Orchestral repertoire.

MUS 342R/344R Applied Music
Advanced studies. Sonatas, concerti, and solo pieces of the baroque, classical, romantic, and early 20th century repertoire. Orchestral studies. Chamber music studies.

MUS 442R/444R Applied Music
Advanced studies. Compositions of all major periods. Contemporary performance practices. Orchestral and chamber music studies.

String Bass

Note: Admission audition requirement for music major: no specific repertoire requirement; technical proficiency of advanced high school string bass player

MUS 142S/144S Applied Music
Technical facility in scales, arpeggios. Studies: sonatas, concerti, and solo pieces of baroque, classical, and romantic repertoire. Orchestral repertoire.

MUS 242S/244S Applied Music
Technical facility in scales, arpeggios. Studies: sonatas, concerti, and solo pieces of baroque, classical, and romantic repertoire. Baroque solo suites. Orchestral repertoire.

MUS 342S/344S Applied Music
Advanced studies. Sonatas, concerti, and solo pieces of baroque, classical, romantic, and early 20th century repertoire. Orchestral studies. Chamber music studies.

MUS 442S/444S Applied Music
Advanced studies. Compositions of all major periods. Contemporary performance practices. Orchestral and chamber music studies.

Harp

MUS 142T/144T Applied Music
Technical studies and etudes such as Salzedo Conditioning Exercises, Bochsa Etudes Op. MUS 318, Pozzoli Studies. Grandjany Two French Folk Songs, Salzedo Chanson dans la Nuit, Handel Passacaglia and Concerto in Bb Major, Haydn Theme and Variations, Annie Louise David Album of Solo Pieces Vol. 1&2.

MUS 242T/244T Applied Music
Continued technical studies and etudes including Bach-Grandjany Etudes for Harp, Dizi 48 Etudes Vol. 1. Salzedo Suite of Eight Dances, Naderman Sonatinas, Debussy Premiere Arabesque, Salzedo Quietude and Introspection, A.L. David Album of Solo Pieces Vol. 1 & 2.

MUS 342T/344T Applied Music
Continuation of technical studies and etudes. Dussek Sonata in C Minor, Handel-Salzedo Harmonious Blacksmith, Debussy Danses Sacree et Profane. Preparation for junior recital.

NAVAL SCIENCE COURSES (NSC-Arts and Science)

NSC 101 Naval Orientation and Organization (2)
Introduction to the naval profession and concepts of seapower. Emphasis on mission, organization, and warfare components of the Navy and Marine Corps. Covers naval courtesy and customs, military justice, and leadership.

NSC 102 Naval Ship's Systems (3) MPT
Study of theory and operation of steam turbine, gas turbine, diesel, and nuclear propulsion systems in the framework of engineering thermodynamics. Introduction to flotation and stability theory, ship compartmentation, interior communication, and damage control in modern naval ships.

NSC 110 Leadership Practicum (1)
Provides orientation to the naval service and NROTC program from the perspective of a member of a structured battalion organization. Includes close order drill and guest speakers with discussion on various Navy-oriented topics. For midshipmen pursuing a commission in the Naval Service.

NSC 121 Foundations of Officership (3)
Introduces students to issues and competencies that are central to a commissioned officer's responsibilities. These initial lessons establish a framework for understanding officership, leadership, and Army values. Additionally, the semester addresses life skills including fitness and time management. (Open enrollment for all students, with no military obligation). Co-requisite: NSC 121L.

NSC 121L Leadership Lab (1)
The leadership lab examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). This course highlights dimensions of terrain analysis, patrolling, and operation orders. Continued study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations. Cadets develop greater self awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios. Co-requisite NSC 121.

NSC 122 Introduction to Tactical Leadership (3)
Overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. You will explore dimensions of leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises. Open enrollment for all students, with no military obligation. Prerequisites: NSC 121, NSC 121L. Concurrent course: NSC 122L.

NSC 122L Leadership Lab (1)
An academically challenging course where you will study, practice, and apply the fundamentals of Army leadership, Officership, Army values and ethics, personal development, and small unit tactics at the team and squad level. At the conclusion of this course, you will be capable of planning, coordinating, navigating, motivating and leading a team or squad in the execution of a tactical mission during a classroom PE, a Leadership Lab, or during a Situational Training Exercise (STX) in a field environment. Successful completion of this course will help prepare you for success at the ROTC Leader Development and Assessment Course (LDAC). Open enrollment for all students, with no military obligation. Prerequisites: NSC 121, NSC 121L. Co-requisite: NSC 122.

NSC 201 Naval Mission Systems (3)
Investigation and evaluation of principles of weapons, mechanical and electronic systems used in delivery of ordinance, methods of fire control, and missile guidance theory.

NSC 202 Sea Power and Maritime Affairs Seminar (3) MPT
Investigates history, needs, and characteristics of seapower and its effect on the maritime affairs of our nation and the rest of the world.

NSC 210 Leadership Practicum (1)
Provides fundamental training and experience in management and leadership techniques. Provides instruction on close order drill and naval officer career areas and responsibilities.

NSC 211 Leadership and Management (2)
Introduction to the principles of management and naval leadership, with an emphasis on their application by a commissioned officer in the U.S. Navy or Marine Corps.

NSC 301 Navigation (3) MPT
Introduction to the art and science of navigation. Includes lectures and practical work on piloting, dead reckoning, electronic navigation, piloting procedures, associated equipment and publications, and knowledge of environmental factors affecting operations at sea.

NSC 302 Naval Operations and Seamanship (3) MPT
An advanced course in navigation with emphasis on historical cases, methods of electronic navigation and principles essential to understanding selected areas of naval operations. Includes lectures on principles and procedures of naval ship navigation, movement, and employment with practical work in navigation and maneuvering board applications.

NSC 310 Leadership Practicum (1)
Provides intermediate level management training and leadership experience through practical application of management techniques. For midshipmen pursuing a commission in the Naval Service.

NSC 311 The Evolution of Warfare (3) MPT
Historical developments of the principles of war, strands of war, and variables of war from 500 B.C. to the present.

NSC 320 Tactical Problems Seminar (1; maximum 2)
Introduction to and discussion of land navigation and tactical route planning.

NSC 402 Leadership and Ethics (3)
Leadership duties of a junior naval officer are approached from a communication and managerial point of view. Emphasizes counseling, public speaking, military justice, and ethics.

NSC 410 Leadership Practicum (1)
Provides upper level management training and leadership experience through practical application of management techniques. For midshipmen pursuing a commission in the Naval Service.

NSC 411 Amphibious Warfare (3) MPT
Defines concept and traces the evolution of amphibious operations, from 500 B.C. to the 21st century U.S. Naval policy.

NURSING COURSES (NSG - Engineering and Applied Science)

NSG 232 Health Issues of Children and Youth (2)
Required for early childhood licensure, intervention specialist licensure, moderate and severe intervention licensure, and health education licensure; not open to nursing students. Includes strategies for preventing commonly occurring health problems. Addresses health needs of children including those with acute and chronic illnesses and disabilities. Analyzes impact of family, school, and community environments in promoting the health and well-being of children. Prerequisite: EDP 201 or FSW 281. Cross-listed with KNH 232.

NSG 251 Therapeutic Communication in Nursing (3)
Examines and develops skills in communication that the nurse uses in working with clients across the lifespan and with other health care professionals. Consideration is given to factors affecting the nurse-client relationship, including self-awareness and cultural awareness. Theory and evidence are examined as foundations for therapeutic communication in nursing practice. Prerequisite: Sophomore standing as baccalaureate nursing student. (BSN program)

NSG 252 Foundations of Professional Nursing (4)
Introduces the student to the role of the nurse as a partner in health promotion with others within the health care system. Nursing is studied in light of its historical roots, educational trends, professional/political power, theory and research, and the profession's role in the changing health care delivery system. Major theories, concepts, trends, and issues that impact the nursing profession today are addressed. Applications of theories regarding socialization into the professional role are emphasized. Prerequisite: Sophomore standing as a baccalaureate nursing student. (BSN program)

NSG 261 Health and Physical Assessment (3)
Designed to develop transcultural health assessment skills across the life span. Content and practice focuses on developing cognitive and psychomotor skills associated with obtaining a complete data base through history taking and physical assessments. Students will identify assessment findings that fall outside accepted parameters of normal for pediatric, adult, geriatric and pregnant populations. Lec/Lab Prerequisite: NSG 251 and 252. (BSN program)

NSG 262 Fundamentals of Professional Nursing Practice (4)
Develops skills in nursing therapeutics and evidence based practice to promote holistic health. Through use of critical thinking skills, students will apply psychomotor skills and nursing therapeutic interventions. Laboratory. Prerequisite: NSG 251 and 252. (BSN program)

NSG 301 Theory-Based Nursing Practice (3)
Students are introduced to major theories, concepts, trends, and issues that impact the nursing profession today. Socialization and application of the theories into the professional role is emphasized. Nursing is studied in light of its historical roots, educational trends, professional/political power, theory and research, and the profession's role in the changing health care delivery system. (RN-BSN program open to second year ADN students).

NSG 311 Health Promotion Across the Lifespan (3)
The course focuses on assessment for wellness and intervention for holistic health promotion throughout the lifespan. Theoretical bases for holistic nursing practice are discussed. Determinants of health promoting behaviors of clients of varying cultures and developmental states are examined. Interpersonal, organizational, and sociopolitical nursing roles and strategies to facilitate holistic health promotion are analyzed. Co-requisite: NSG 301. (RN-BSN program).

NSG 312 Assessment of the Well Child (1)
Facilitates development of skills appropriate to performing a screening physical exam as part of a comprehensive nursing assessment for the well child, ages 5-18. Content and practice focuses on developing student's ability to obtain a complete database, identify physical assessment findings that fall outside accepted parameters of normal, and analyze data to formulate nursing diagnoses. The course is required for School Nurse licensure. 1 Lec.

NSG 313 Assessment of the Well Individual (2)
Facilitates development of physical assessment skills appropriate to performing a screening physical examination as part of a comprehensive nursing assessment. Content and practice focuses on developing student's ability to obtain a complete data base, identify physical assessment findings that fall outside accepted parameters of normal, and analyze data to formulate nursing diagnoses. (RN-BSN program)

NSG 317 Teaching Strategies in Health Care (3)
Designed to develop knowledge and skill in teaching clients and their families on a one-to-one basis as well as in group situations. Content related to theories of learning, assessment of learning needs, teaching strategies, and evaluation of teaching explored in detail. Emphasizes the role of a nurse as a teacher. Employs experiential teaching strategies. Students learn to teach by experimenting with different teaching strategies, as well as by modeling techniques used by the instructor. (RN-BSN program)

NSG 331 Introduction to Nursing Research (3)
Provides foundation for systematic study of nursing and health related problems using research process. Emphasis will be place on critiquing published studies, understand the research process, and developing skills in research utilization in the practice setting. (RN-BSN program)

NSG 341 Caring and Terminal Illness (3)
Elective course that explores concepts of professional nursing care in relation to terminal illness. Foci include symptom control, family support, attitudes toward death and dying, and concept of biomedical ethics. (elective for BSN and RN-BSN program)

NSG 343 Health Care Informatics (3)
Designed to give experience with issues and use of health care information management systems. Progresses from history and description of hospital and computer-based systems to clinical bedside practice, research, education, and administrative application. Community and institution-based systems are discussed as well as ergonomics and software/hardware selection. Prerequisite: basic computer science course and junior standing in health, systems, or related field, or by permission of instructor. (Required BSN; elective RN-BSN program)

NSG 349 Introduction to Principles of Pharmacology in Nursing Practice (3)
Introduces the student to the nursing application of basic pharmacology throughout the lifespan. Emphasis is placed on the application of pharmacological knowledge through clinical decision making in nursing practice. Prerequisites: NSG 251, 252, 261 and 262. (BSN program)

NSG 351 Nursing of Childbearing Family (2)
Examines theory and evidence based practice as the basis for planning care for the childbearing family. Emphasis is placed on health promotion integration for families in transition, acknowledging physiological, sociocultural, political and economic forces within the health care system. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 352 Childbearing Family Clinical (3)
Addresses the nursing role as provider of care for childbearing families Theoretical principles and evidence based practice are applied to the planning of and providing care for the childbearing family. Emphasis is placed on health promotion integration for childbearing families. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 353 Nursing Care of Adult Clients with Health Alterations I (3)
Examines holistic nursing care of adults. Emphasis is on therapeutic nursing care to promote, maintain, and restore health in adults within the context of the family and community. Focus is on medical-surgical health alterations common to adults. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 354 Nursing Care of Adult Clients with Health Alterations I-Clinical (3)
Addresses providing holistic nursing care to adults and their families in a variety of settings. Students will focus on health promotion, risk reduction, and health restoration activities in examining medical-surgical health alterations common to adults. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 361 Nursing Care of Adult Clients with Health Alterations II (3)
Examines holistic nursing care of adults and their families. Emphasis is on therapeutic nursing care to promote, maintain, and restore health in adults within the context of the family and community. Focuses on medical-surgical health alterations common to adults. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 362 Nursing Care of Adult Clients with Health Alterations II-Clinical (3)
Addresses providing holistic nursing care to adults and their families in a variety of settings. Students will focus on health promotion, risk reduction, and health restoration activities in examining medical-surgical health alterations common to adults. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 363 Nursing Care of Children (2)
Examines theory and evidence based practice as the basis for planning nursing care for the child within the context of family and community. Emphasis is placed on health promotion, psychological and physiological needs as well as the dynamic interplay of culture, socioeconomic, ethical and legal issues, and spiritual beliefs.

Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 364 Nursing Care of Children-Clinical (3)
Addresses application of theory and evidence based practice in caring for the child within the context of family and community. Emphasis is placed on health promotion, psychological and physiological needs as well as the dynamic interplay of culture, socioeconomic, ethical and legal issues, and spiritual beliefs. Prerequisite: Junior standing as a baccalaureate nursing student. (BSN program)

NSG 365 Nursing Research (2)
This course introduces the baccalaureate nursing student to the research process and its application in the discipline of nursing. Emphasis will be placed on critiquing published studies, understanding the research process, and developing skills to apply research findings in the practice setting.

NSG 402 The Professional Nurse Leader (3)
Prepares baccalaureate nursing students for the roles of leader, manager, and follower. Emphasis is placed on the application of the theories of leadership, management, and followership to practice situations. (BSN and RN-BSN programs)

NSG 405 School Nurse License Practicum (5-10)
Provides a supervised field experience for nurses meeting the School Nurse License requirements. The focus is on application of public health and nursing theory to the role of the school nurse. Weekly conferences with university and/or precepting school nurses will be held. Prerequisites: completion of all other courses required for licensure. Required for School Nurse License program.

NSG 418 Complex Health Problems (3)
Examines complex health problems that affect individuals and families across the lifespan. Students analyze the multiple factors contributing to major chronic health problems of contemporary American society. Emphasis is given to the way in which individuals as members of families and other social groups adapt to the trajectory of the disease process. The course also examines the role of the nurse as a member of the interdisciplinary team that provides services for disease prevention, health restoration, and rehabilitation. Co-requisite: NSG 301, 311, 313, 331, 420. (RN-BSN program)

NSG 420 Focused Practicum in Baccalaureate and Expanded Nursing Roles (2)
In this clinical course, students will design their own practicum experience in which they will work with a preceptor in a role appropriate to the Bachelors or Masters prepared nurse. Students will negotiate with faculty and preceptors to develop experiences and activities that will meet their own learning needs. Roles selected could include, but not be limited to leadership, research, health promotion, cultural diversity exploration, specialized inpatient or outpatient care, advanced practice nursing, or community activism. Co-requisites: NSG 301, 311, 313 and 331. (RN-BSN program).

NSG 430 Nursing Care of Aggregates: Families and Communities (3)
Offers theoretical background in community health nursing. Emphasizes promotion and maintenance of the health of individuals, families, small groups, and the community. Assists students to recognize and analyze the interrelation of individuals, families, population groups, and the community and the resulting effect on the health status of each. Co-requisite: NSG 431. Prerequisite: MBI 361. (BSN and RN-BSN programs)

NSG 431 Nursing Care of Aggregates: Families and Communities: Clinical (3)
Utilizes concepts and skills from nursing, physical and behavioral sciences, public health science, and the humanities in providing health promotion, health maintenance, and health restorative nursing care. Nursing care provided to individuals, families, and communities. Co-requisite: NSG 430. (BSN and RN-BSN programs)

NSG 435 Challenges in Health Care Delivery (3) MPC
Provides opportunity to synthesize and apply accumulated knowledge to a specific topic or project related to health care delivery. Students with varying academic and experiential backgrounds work in small groups to research and analyze a topic or situation from various perspectives. Students will analyze health care policies, trends and finances in the delivery of health in a multicultural society. Prerequisite: senior standing. (BSN and RN-BSN programs)

NSG 441/541 Health and Aging: Current Perspectives and Issues (3) MPT
This elective course examines issues of health status and health care delivery for the older population. Topics include perceptions of health, major health problems in later life, strategies for working with older persons experiencing functional and sensory changes of aging, patterns of health-services utilization, projected health needs, and ethical issues related to health care for the elderly. (elective for BSN and RN-BSN programs)

NSG 442 Interpersonal Interventions in Nursing (3)
Designed to focus on the interpersonal processes in nursing, dyadic and group-intervention skills at the B.S.N. level. Concepts of relationships, crisis intervention, and group dynamics addressed and put into practice. (elective for BSN and RN-BSN programs)

NSG 451 Nursing Care of Clients Experiencing Mental Health Disorders and Their Families (3)
Examines theory and evidence based practice in the nursing care of clients experiencing mental health disorders and their families. Emphasizes application of the nursing process and therapeutic communication skills in the promotion of mental health. Concepts of group dynamics and family systems are addressed. Prerequisite: Junior or senior standing as a baccalaureate nursing student. (BSN program)

NSG 452 Nursing Care of Clients Experiencing Mental Health Disorders and Their Families-Clinical (3)
Addresses providing care to clients experiencing mental health disorders and their families in a variety of settings. Emphasis is on application of the nursing process and therapeutic communication skills. Promotion of mental health, concepts of group's dynamics and family systems are addressed. Prerequisite: Junior or senior standing as a baccalaureate nursing student. (BSN program)

NSG 461 Nursing Care of Older Adults (3)
Examines holistic nursing care of the aging client. Health and wellness needs of the older adult and the impact of aging on the individual, family, and community are evaluated. Focus is on promoting functional ability and quality of life of the older adult. Prerequisite: Junior or senior standing as a baccalaureate nursing student. (BSN program)

NSG 462 Nursing Care of Older Adults-Clinical (2)
Examines providing holistic nursing care of the aging client. Nursing care will be provided to older adults and their families in selected acute, rehabilitative, long-term care and community settings. Focuses on promoting functional ability and quality of life of the older adult and family. Prerequisite: Junior or senior standing as a baccalaureate nursing student. (BSN program)

NSG 463 Nursing Care of Clients Experiencing Multi-System Health Alterations (3)
Examines multi-system health alterations that affect individuals and families across the life span. Students will synthesize prior learning as they analyze the multiple factors contributing to major health alterations. Emphasizes the way in which individuals as members of families and other social groups adapt to the trajectory of the disease process and complex health alterations. The student is guided to examine the role of the nurse as a member of the interdisciplinary team that provides services for disease prevention, health restoration and rehabilitation. Prerequisite: Second semester senior standing as a baccalaureate nursing student. (BSN program)

NSG 464 Nursing Care of Clients Experiencing Multi-System Health Alterations-Clinical (5)
Addresses providing care to groups of clients with multi-system health alterations and their families. Focuses on refining clinical decision making skills, implementing evidence-based interventions, and measuring client outcomes in evaluating the therapeutic effectiveness of care provided. Facilitates the transition from student to graduate nurse through preceptored experiences and faculty guidance. Prerequisite: Second semester senior standing as a baccalaureate nursing student. (BSN program)

NSG 492/592 Individuals with Severe Behavioral and/or Emotional Disturbances: Social, Educational, Health, and Legal Issues (3)
This elective course focuses on etiology, psychology, and behavioral characteristics of individuals identified as having severe behavioral and/or emotional disturbances. Students examine a variety of theoretical bases for assessment and practice. Students analyze the relative effectiveness of a variety of treatment settings and modalities, including interventions for selected behavioral and emotional issues, as well as psychopharmacological treatment. Emphasizes social, educational, and legal issues related to this

population. (Required for school nurse license certification; elective for BSN and RN-BSN programs)

PHILOSOPHY COURSES (PHL-Arts and Science)

Note: Except where specific prerequisites are stated, all 100-, 200-, and 300-level courses are open to any student. 300-level courses without prerequisites require a higher degree of sophistication than lower level courses, but do not presuppose prior course work.

Note: All PHL courses satisfy CAS-B except 273 and 373 (CAS-E).

PHL 101 Knowledge of World, God, and Morality (3) MPF, MPT
Can you know for certain or know at all whether there really is a world or whether God exists? Can you know the difference between good and evil, right and wrong? These and related questions are explored while taking up the skeptical challenges to knowing anything at all. lntroduces fundamental questions of philosophy and basic reasoning skills, methodologies, and concepts used by philosophers. Students are prepared for further work in philosophy and develop skills in critical thinking, reading, and writing for any area of learning. IIB.

PHL 103 Society and the Individual (3) MPF
A study of the relationship between human beings and the societies in which they live and of the implications different perspectives on this relationship have for a view of social justice. We investigate this relation in terms of its political, economic, social, ethical, and epistemological dimensions. Introduces fundamental questions of philosophy and basic reasoning skills, methodologies, and concepts used by philosophers. Students are prepared for further work in philosophy and develop skills in critical thinking, reading, and writing for any area of learning. IIB.

PHL 104 Purpose or Chance in the Universe (3) MPF, MPT
Is the present universe the result of purpose or chance? Positions and arguments on this question by scientists and philosophers at different points in Western history are studied. In this inquiry, special attention is paid to recent developments in scientific cosmology that throws important new light on the question. Whether the results of the inquiry support purpose or chance more strongly is considered. Introduces fundamental questions of philosophy and basic reasoning skills, methodologies, and concepts used by philosophers. Students are prepared for further work in philosophy and develop skills in critical thinking, reading, and writing for any area of learning. IIB, H.

PHL 105 Theories of Human Nature (3) MPF, MPT
There have been various ways that human beings have understood themselves and their place in nature. Every conception of the self embodies a conception of what can be known, of how we ought to live, of what values we ought to hold, and to what extent we are free. We consider various conceptions of the person in light of these questions. Introduces fundamental questions of philosophy and basic reasoning skills, methodologies, and concepts used by philosophers. Students are prepared for further work in philosophy and develop skills in critical thinking, reading, and writing for any area of learning. IIB.

PHL 106 Thought and Culture of India (4) MPF, MPT
Examines India's history and civilization, philosophies and religions, arts and literature, science and technology as a culture's self-understanding and self-expression of its ideas, values, and ways of thinking. Comparisons made between Indian and other ways of thought and modes of living. IIB, Cul, H.

PHL 131 Problems of Moral and Social Values (3) MPF, MPT
Introduction to ethical theory and its application to individual moral issues relating to human conduct and social institutions and political systems. As a background for critical evaluation of these issues, major theoretical positions in ethics are investigated (including egoism, deontology, utilitarianism, religious ethics, and often virtue ethics and feminist ethics). Considers a number of issues relating to and often critical of ethical theories (may include relativism, skepticism, moral alienation, and cultural diversity of ethics). Course is historical and thematic with major ethical theories analyzed in relation to concrete situations. Involves students in the creative process of developing skills and arguments necessary to engage in reflective moral reasoning. IIB.

PHL 205 Science and Culture (3)
Study of science and scientific method as it relates to its social and cultural contexts. Cultural, aesthetic, ethical, and social dimensions of science. Offered infrequently.

PHL 211 Problems of God and Religion (3)
Critical analysis of selected problems such as nature and existence of God, problem of evil, justification of religious belief, and significance of religious experience.

PHL 221 Problems of Metaphysics and Knowledge (3) MPT
Critical examination of the nature of reality and our knowledge of it. Sample topics include relation of mind to body, freedom and determinism, whether the world is fundamentally material or mental, nature and extent of our knowledge of the world.

PHL 231 Happiness (4) MPT
Examines various approaches to the meaning, value, and possibility of happiness. Introduces fundamental questions of philosophy and basic reasoning skills, methodologies, and concepts used by philosophers. Students are prepared for further work in philosophy and develop skills in critical thinking, reading, and writing for any area of learning.

PHL 241 Aesthetics (4)
Introduction to basic notions of aesthetics, such as the definition of art, truth in the arts, characterization of aesthetic experience, etc. through examination of specific philosophies and problem areas. Readings may range from classical to contemporary thinkers. Offered infrequently.

PHL 263 Informal Logic (4) MPT
Informal analysis of discourse, especially argument, with the aim of improving understanding, criticism, evaluation, and construction of arguments in significant contexts.

PHL 273 Formal Logic (4) MPF, MPT
Survey of elementary logical systems: Aristotelian, Boolean, sentential, quantified. Scientific method and issues in the philosophy of logic may be included. V. CAS-E.

PHL 301 Ancient Philosophy (4) MPT
Survey of ancient philosophical thought covering pre-Socratics, Socrates, Plato, Aristotle, and Hellenistic philosophy. Problems discussed include the nature of being and becoming, monism and pluralism, knowledge, value, and society. Emphasis given to philosophies of Plato and Aristotle.

PHL 302 Modern Philosophy (4) MPT
Philosophical study of the development of philosophy at the beginning of modern period, Descartes to Kant. Both the interrelationship of points within each philosopher's thought and the change of thought from earlier philosophers to later ones are emphasized. Specific issues for study include relation of thought and reality, knowledge and opinion, truth and appearance, value.

PHL 304 Indian Philosophy (4)
A survey of Hindu, Buddhist, Jain and Yogic philosophic traditions with special emphasis on the nature of self, consciousness and intentionality; knowledge and error; suffering, release and transcendence.

PHL 307 Gandhian Philosophy (3)
This course will survey Gandhi's philosophy and practice of non-violence, Truth, politics, religion, education and economics. It also examines Gandhi's relevance to modernity and discusses his influence on Martin Luther King and the Civil Rights movement.

PHL 310 Special Topics (1-4; maximum 8)
Treatment of selected topics or philosophers.

PHL 311 Ethical Theory (4)
Topical and historical in-depth study of classical and contemporary ethical theories. Addresses such questions as the following: What are the fundamental principles of moral action? Can such principles be justified? What moral theories are most adequate and why? What constitutes the well-lived life? Are persons moral agents? What is the relationship between morality and happiness? What is the relationship between freedom and morality? Why be moral? Prerequisite: PHL 131.

PHL 312 Contemporary Moral Problems (4) MPT
Moral argument and bases of moral decision. Discussion of such issues as sexuality, career and professional ethics, environmental responsibility, individual conscience and authority, abortion, suicide, and war. Prior completion of PHL 131 is recommended.

PHL 322 Contemporary European Philosophy (4)
Introduction to contemporary European philosophy that emphasizes its reliance on the historical development of philosophic concepts. Examines the ways in which contemporary philosophers reconstruct concepts such as rationality, language, value, time, and subjectivity. Special attention given to the processes by which concepts are invested with meaning, analyzed, and/or transformed. Offered infrequently.

PHL 331 Political Philosophy (4)
Inquiry into values and principles of government, justice and law, rights and responsibilities, freedom and power, violence and revolution. Prerequisite: PHL 103 or 131.

PHL 335 Philosophy of Law (4)
Philosophical study of some problems arising in law. Problems discussed include: concept of law and its relation to morality; logic of legal reasoning; legal rights, duties, responsibility, punishment, fault, voluntariness, etc.

PHL 355 Feminist Theory (4) MPT
Examination of major writing by contemporary feminist thinkers. Traditional philosophical questions, such as justice, freedom, nature of a person, and relationship of an individual to society, are raised in context relevant to both male and female students. Cross-listed with WMS 355.

PHL 360 Interdisciplinary Special Topics (1-4; maximum 8)
Course of study on selected topic examined from perspective of two or more disciplines. Offered infrequently.

PHL 360A Confronting Death (4) MPT
Interdisciplinary course offered jointly by three or four departments examining how people regard their deaths and deaths of others. Approaches to death such as denial, acceptance, and rebellion are considered; issues such as immortality, funerals, grief, suicide, and euthanasia are taken up in a variety of literature and films. Cross-listed with ENG, PSY, and REL 360.A. Offered at least every other year.

PHL 373 Symbolic Logic (4) MPT
Study of standard notation, principles of inference, formal systems, methods of proof. Chief attention given to first-order predicate logic. Some focus placed on the philosophy of logic. CAS-E. Offered every other year.

PHL 375 Moral Issues in Health Care (4) MPT
Purpose of course is to think together in an informed and critical manner about selected issues in the field of health care. Attempt made with each issue addressed to consider distinctive interests and perspectives of physicians, nurses, patients, and the public. Issues considered include physician/patient relationships; lying, truth-telling, paternalism, and trust; death and dying, including suicide, euthanasia, and treatment of defective newborns; treatment of mental illness and patient rights; allocating scarce resources; nature of health and purposes of medicine. Prerequisite: Prior completion of one course in philosophy; PHL 131 is recommended.

PHL 376 Environmental Philosophy (4) MPT
Critical study of metaphysical, epistemological, and moral problems associated with questions of ecology and humankind's relation to natural environment. Considers such issues as conceptions of nature, character and impact of various forms of technology, relations of environment and economics, environmentalism and justice, and environmental ethics. Offered alternate years.

PHL 390 Existentialism (4)
Study of major ideas in existential philosophers such as Camus, Heidegger, Jaspers, Kafka, Kierkegaard, Marcel, Merleau- Ponty, Nietzsche, Sartre. Repeatable with different content once. Cross-listed with REL 390.

PHL 392 Philosophy of Religion (4)
Study of major philosophical problems relating to religion. Topics are drawn variously from Western and Eastern intellectual traditions or from both. Problems such as the meaning of religious utterances, existence of a divine being, life after death, relationship of faith and reason are treated. Cross-listed with REL 392. Offered alternate years.

Advanced Philosophy Courses

Note: All of the following require a minimum of two previous courses in philosophy, and sometimes a specific prerequisite is cited. Students may also seek permission of instructor for entrance to a course.

PHL 402/502 19th Century Philosophy (4)
Detailed study of advances in philosophy attempted by major philosophers of the 19th century. Emphasis on solutions they offered to problems of early modern thought and to foundations laid for important developments in 20th century thinking. Course may follow philosophical systems of leading philosophers (e.g., Hegel, Feuerbach, Marx) or it may proceed topically (e.g., dialectics, alienation in Hegel, Marx, Kierkegaard). Offered alternate years. Prerequisite: PHL 302.

PHL 404 What is Philosophy? (4) MPC
Addresses the questions of the nature and ends of philosophy. The capstone course offers both a culmination of a philosophical education through a discussion of various philosophical views on the meta-question of the nature of philosophy, and a culmination of a liberal education through a comparison of philosophy with other fields of inquiry. Prerequisite: 9 hours of completed philosophy courses and senior status.

PHL 405 Philosophy for Children (4) MPC
Focuses on humanistic thinking in K-8 education. Investigates the implications of and justification for the claim that it is the humanities that initiate us into a culture, into a historical community with its traditions and meanings. Considers how the humanities can lay foundations that will prepare children to assume the responsibility of critically assessing their culture in order to advance it.

PHL 410/510 Special Topics (1-4)
Seminar treatment of selected topics or philosophers. New topics at student initiative. Offered infrequently.

PHL 411/511 Advanced Ethical Theories (4)
Critical discussion of recent works in ethics. Prerequisite: PHL 131.

PHL 430/530 Seminar in Ancient or Medieval Philosophy (4)
Intensive study of a major topic (e.g., universals, knowledge and perception, the human soul, God, morality, language and reality) or work of a major philosopher (e.g., Socrates, Plato, Aristotle, Plotinus, Augustine, Anselm, Aquinas) of ancient or medieval period. Repeatable with different content up to three times.

PHL 440/540 Seminar in Modern Philosophy (4)
Intensive study of philosophy of one major philosopher of early modern period, e.g., Spinoza, Descartes, Leibniz, Berkeley, Hume, Kant, or a topical study in the philosophy of the period. Repeatable with different content up to three times.

PHL 450/550 Seminar in Contemporary Philosophy (4)
Examination of one or more 20th century philosophers such as Russell, Wittgenstein, Heidegger, Quine, or a study of contemporary treatments of selected philosophical issues such as self, consciousness, knowledge, reality. Repeatable with different content up to three times.

PHL 459/559 Political Philosophy Seminar (4)
Intensive study of a major political philosopher (e.g. Marx, Arendt, or Rawls) or
intensive study of a focused theme in political philosophy (e.g., power, equality,
freedom, or justice) and/or critical discussion of the texts and major work of a particular historical set of political philosophers.

PHL 460/560 Seminar in Marxism (4)
Intensive study in Marxist philosophy. Deals with multifaceted shape of consciousness of a single philosopher (such as Marx), or survey thematically issues (such as a value or knowledge or the nature of human beings) dealt with by many Marxists, or be problem oriented using the Marxist shape of consciousness to illuminate the issue. Repeatable with different content up to three times. Offered alternate years.

PHL 470/570 Advanced Aesthetics (4)
Selected topics in advanced study of philosophy of art. Topics may include film aesthetics, philosophy of tragedy, metaphysics of the novel, aesthetic formalism. Repeatable with different content up to three times. Prior completion of PHL 241 recommended. Offered infrequently.

PHL 471/571 Philosophy of Science (4)
Philosophical foundations of science both natural and social. Such issues as the role of observation, laws, theories, and paradigms in science; ethical implications of science; objectivity of science are investigated. Offered infrequently.

PHL 475/575 Justice and Health Care (4)
This seminar considers what is required of a health care system in the U.S. by considerations of justice. Such questions as the following

are taken up: Do people have a right to a basic level of health care? What financing and delivery system is most fair? Should doctors (or legislators?) ration scarce medical resources, especially to the elderly, the poor, or persons with AIDS? Prerequisite: PHL 131 and either 312 or 375 or permission of instructor.

PHL 480 Independent Reading for Departmental Honors (3, 3)
To earn departmental honors, a student must complete two semesters of independent reading courses.

PHL 493/593 Phenomenological Method (4)
Theoretical study of method in phenomenology as exemplified in the works of the major figures of the movement.

PHL 494/594 Philosophy of Mind (4)
Selected topics or authors, historical or contemporary. Topics include such problems as personal identity and individuation, the self, mind/body problems, the will, thought and cognition, perception, philosophy and psychology. Prior completion of PHL 221 is recommended. Offered infrequently.

PHL 495/595 Metaphysics (4)
Selected topics or authors in metaphysics, historical or contemporary. Topics include such problems as universals and particulars, causality, space and time, freedom and determinism, God, existence. Prerequisite: PHL 221 is recommended. Offered alternate years.

PHL 496/596 Epistemology (4)
Analysis of such concepts as knowledge, belief, certainty, evidence, truth, perception. Prior completion of PHL 221 recommended. Offered alternate years.

PHL 600 Independent Reading Philosophy (1-6)
Intensive study of a group of problems in a limited field or of particular philosophers or of particular schools of philosophy.

PHL 610 Research Seminar (3-4)
Each student will take one paper written for a philosophy course and develop it into a length and quality suitable for publication in a scholarly journal. Members of the seminar will read each of these papers and suitable parts of its bibliography in order to critique the paper and assist its progress toward publication.

PHL 673 Symbolic Logic (4)
Study of propositional calculus and monadic and polyadic quantification, with some focus on propositional calculus as an axiomatic system. Offered infrequently.

PHYSICS COURSES (PHY-Arts and Science)

Notes:
1. Consult the physics placement guide for assistance in selecting beginning courses.
2. Contact the department chair or chief departmental adviser for appropriate physics course selection if you receive Advanced Placement credit in physics.
3. A student who receives credit for a higher level lecture or laboratory sequence, e.g., 181,182 or 183,184, may not receive credit concurrently or subsequently for a lower level sequence except that, with departmental permission, a student may concurrently or subsequently receive credit for courses numbered 111 through 141. A student may transfer from an introductory physics sequence to a lower numbered sequence at the end of the first semester, i.e., 181 to 111 through 141.

PHY 101 Physics and Society (3) MPF
Introduction of fundamental principles of physics and discussion of the interaction of science and society, both today and in the past. Provides skills in thinking critically about societal problems which have a scientific or technological component. IVB.

PHY 103 Concepts in Physics Laboratory (1) MPF
Laboratory course illustrating the basic concepts of physics. For the general student; complements physics lecture offerings at the nonspecialist level. Prerequisite: concurrent registration in or prior completion of PHY 101, 111, 118, 121, 131, or 141. IVB, LAB. CAS-D/LAB.

PHY 111 Astronomy and Space Physics (3) MPF, MPT
Study of space exploration, astrophysics, astronomy, and cosmology. IVB, H.

PHY 118 Introduction to Atmospheric Science (3) MPF
Introductory survey of a broad range of atmospheric phenomena with emphasis on how they can affect our lives and mankind's impact on a changing atmospheric environment. Quantitative, illustrative, and mostly non-mathematical approach to processes that pertain to such topics as composition of the atmosphere, global climate, large-scale weather systems, and the nature of violent storms. Develops skills in the areas of problem solving (using charts instead of equations) and elementary weather forecasting. Cross-listed with AER 118. IVB.

PHY 121 Energy and Environment (3) MPF
Application of physics principles and models to societal uses of energy. Includes mechanics, electricity and magnetism, thermodynamics, and atomic and nuclear physics. Energy topics include resources, environmental problems, global atmospheric challenges, nuclear power, solar energy, alternative energy systems, and energy conservation. Algebraic skills are required but no previous course in physics is needed. IVB.

PHY 131 Physics for Music (3) MPF
Introduction to the basic physics of sound within the context of music. Production, transmission, and reception of sound waves; traditional and electronic musical instruments; physics of sound reproduction. IVB.

PHY 141 Physics in Sports (3) MPF
Various aspects of a dozen or more sports are treated using the laws of physics. Provides the non-science student with insight into principles governing motion, dynamics, and other elements of physics in sports. IVB.

PHY 171/172 College Physics (3, 3)
General physics course recommended for students of the life sciences. (171) Classical mechanics and quantum physics. (172) Thermal physics, electromagnetism, and relativity. Minimum mathematical preparation requires students to have had courses that include trigonometry. MTH 151, 153, or equivalent are strongly encouraged. Prerequisite: (172) PHY 171. Co-requisite: PHY 183, 184.

PHY 181/182 The Physical World (4, 4) (PHY 182 is MPT.) MPF
Quantitative introduction to basic physical laws of nature. (181) Classical mechanics and quantum mechanics. (182) Thermal physics, electromagnetism, and relativity. Concepts developed through lectures, demonstrations, and computer simulations. Qualitative reasoning emphasized and quantitative problem-solving skills developed. Concepts from differential and integral calculus developed and used. No previous physics course is required. Freshmen should enroll in PHY 181.F, 182.F. Prerequisite or co-requisite: MTH 151, 153, or equivalent. Prerequisite: (182) PHY 181. Corequisites: PHY 183, 184. IVB.

PHY 183/184 Physics Laboratory (1, 1) (PHY 184 is MPT.) MPF
Laboratory course for students enrolled in PHY 181, 182 or PHY 171, 172. Basic experiments in mechanics, statistical physics, and electromagnetism. Prerequisite or co-requisite: PHY 181, 182 or PHY 171, 172. IVB, LAB. CAS-D/LAB.

PHY 185/186 Experiencing The Physical World (1, 1)
An optional demonstration/ experiment/ modeling course designed to provide enrichment for students enrolled in PHY 181.F or 182.F.

Advanced Physics Courses

PHY 205 Physics and Chemistry of Toys (4)
For education majors. Examines key principles of chemistry and physics by means of integrated lecture and laboratory. Hands-on toy-based investigations that are appropriate for use in the elementary and middle school classroom are used to develop concept understanding. Areas of investigation are pure substances, mixtures, states of matter, chemical reactions, motion, energy, electricity, magnetism, sound, and light. Prerequisite: EDT 181 or permission of instructor. Cross-listed with CHM 205. Offered only on regional campuses.

PHY 211 Observational Foundations of Astronomy (3) MPT
Describes and investigates many of the pivotal observations in the development of astronomy. Through a largely historical development, the contexts of these observations are discussed and the impact of these observations on the fundamental theories of astronomy is described. Prerequisite: PHY 111.

PHY 215 Physics by Inquiry (3)
For middle and adolescent level education majors seeking licensure in science. Emphasizes scientific inquiry in an activity-based,

cooperative-learning approach. Goals are to develop basic physical concepts and the scientific reasoning skills necessary to apply them to the natural world and to serve as a model for the transfer of the methods of inquiry-based instruction and authentic assessment to the precollege classroom. Topics selected from properties of matter, thermodynamics, electricity, optics, kinematics, and astronomy. Assessments include laboratory notebook and journal writing, discussion, and developing and teaching inquiry lessons. Prerequisite: one year of physical science or permission of instructor.

PHY 286 Introduction to Computational Physics (3) MPT
Lecture-laboratory course on use of computers in analyzing physical systems. Topics of study come from classical mechanics, electromagnetism, statistical physics, and quantum mechanics. Prerequisite: PHY 182, MTH 251.

PHY 291 Contemporary Physics (4) MPT
Third course in a sequence that begins with two semesters expounding the visions of Newton, Schrödinger, Boltzmann, Maxwell, and Einstein. Incorporates a focus approach that emphasizes Nobel prize-winning physics occurring within the lifetime of the student. Presently, the foci are the scanning tunneling microscope, high-Tc superconductivity, and the "standard model" for particle physics. Topics include quantum mechanics in three dimensions, solid state physics, quantum optics, and particle physics. Prerequisite: PHY 182. Co-requisite: MTH 252 (or permission of instructor) and PHY 293.

PHY 292 Electronic Instrumentation (3) MPT
Theory and application of electronic instrumentation for scientists with emphasis on data acquisition and analysis with microcomputers. Prerequisite: PHY 182. Co-requisite: PHY 294.

PHY 293 Contemporary Physics Laboratory (2) MPT
Accompanies PHY 291 Contemporary Physics. Incorporates a focus approach that emphasizes Nobel prize-winning physics research occurring within the lifetime of the student. Presently, the foci are the scanning tunneling microscope, high-Tc superconductivity, and the 'standard model' for particle physics. Prerequisite: PHY 184. Co-requisite: PHY 291. CAS-D/LAB.

PHY 294 Laboratory in Electronic Instrumentation (2) MPT
Laboratory experience in the use of electrical and electronic instruments, application of transducers and data acquisition equipment. Use of computer in analyzing data and interfacing computer with experiments. Co-requisite: PHY 292.

PHY 311 Contemporary Astronomy (3) MPT
Study of topics of current interest in astronomy, including the most recent and important observations and theories. Prerequisite: PHY 111 and 211.

PHY 341 Mathematical Methods in Physics (4)
Discusses mathematical methods applicable to classical mechanics, quantum mechanics, and electromagnetism. Develops problem-solving skills by applying material from introductory math and physics classes along with new mathematical techniques. Allows for modeling of systems at a deeper level. Emphasizes the use of mathematics to model physical systems and methods of solutions to the differential equations of physics. Prerequisite: PHY 291; MTH 222, 252.

PHY 400/500 Physics Seminar (1; maximum 4 for any one degree)
Weekly physics colloquium series presenting guest speakers on topics of interest to scientific community. Required of all graduate students in residence. Prerequisite: PHY 182 or equivalent or permission of faculty in charge. Offered for credit/no-credit only.

PHY 410 Topics in Physics Seminar (1-3; maximum 12)
Directed study in selected topics in physics. Includes reading, research, writing, reporting, and discussion. Offered infrequently.

PHY 420/520 Advanced Laboratory Physics (1-4; maximum 4 for any one degree)
Techniques of nuclear physics, solid state physics, and optics. Prerequisite: PHY 291, 292. Offered infrequently.

PHY 421/521 Introduction to Biophysics (4)
Designed to acquaint the advanced undergraduate and graduate science major with physical principles required for an understanding of modern quantitative biology. Covers both experimental and theoretical aspects of physical biology. Prerequisite: PHY 172 or 182, MTH 249 or 251, or permission of instructor.

PHY 423/523 Materials Physics (4)
Lecture and laboratory course addressing topics in the materials categories: metals, ceramics, semiconductors, and polymers. Laboratory emphasizes techniques found in research and development of materials. Prerequisite: PHY 291, 293.

PHY 430/530 Topics in Physics (1-4; maximum 12)
Study of topics of current interest in physics beyond the coverage in other course offerings. Prerequisite: senior or graduate standing in physics or permission of instructor.

PHY 431/531 Elementary Particle Physics (3)
Summary of Summarizes known particles and their properties, and uses relativistic and non-relativistic quantum mechanics to describe their interaction. Quantum field theory and Feynman diagrams are discussed with emphasis on quantum electrodynamics. Prerequisite(s): PHY 341 or equivalent, or instructor permission.

PHY 435/535 Introduction to Astrophysics (4)
Applications of atomic and nuclear physics to the problems of stellar structure and evolution. Cosmological implications of recent astronomical discoveries. Prerequisite: PHY 291, MTH 252, or permission of instructor.

PHY 437/537 Intermediate Thermodynamics and Introduction to Statistical Physics (4)
Development of formal thermodynamics including first, second, and third laws, thermodynamic potentials, Maxwell's relations, phase transitions, and illustrative applications of thermodynamics. Introduction to kinetic theory approach to behavior of systems not in equilibrium, Boltzmann Equation, and transport processes. Development of statistical mechanics and ensemble approach to equilibrium statistical thermodynamics. Prerequisite: PHY 291. Pre- or co-requisite: PHY 341 or permission of instructor.

PHY 440 Research (1-4, maximum 12)
Undergraduate research projects with direction of faculty member. Prerequisite: permission of instructor.

PHY 441/541 Optics and Laser Physics (4)
Lecture and laboratory course covering all aspects of lasers. Teaches basics of physical and geometrical optics and atomic physics in detail to understand the design, operation, and application of lasers. Topics include matrix methods in ray optics, gaussian beams, cavity design, rate equation models of laser gain media, pulsed and CW lasers, different types of lasers, and nonlinear optics. Applications to communications, optical computing, and image processing are discussed. Prerequisite: PHY 291, 293, or permission of instructor.

PHY 442/542 Spectroscopy of Atoms and Molecules (4)
Survey of the structure of atoms and molecules, using optical spectroscopy as a tool. Lecture reviews the quantum theory of atoms and molecules, including solutions to the Schroedinger equation, spectroscopic notation, transition rates, and selection rules. Laboratory examines a variety of light sources, with increasing resolution. Zeeman, fine structure, and hyperfine structure, in particular, are considered. Emphasis on laboratory investigation. Prerequisite: PHY 291, 293, or permission of instructor. Pre- or co-requisite: PHY 341.

PHY 451/551 Classical Mechanics (4)
Mechanics, nonrelativistic and relativistic, of particles, systems of particles, and rigid bodies treated by Newtonian, Langrangian, and Hamiltonian methods using vector and matrix analysis and calculus of variations. Pre- or co-requisite: PHY 341 or permission of instructor.

PHY 461/561 Electromagnetic Theory (4)
Mathematically quantitative lecture and problem course in theory of electromagnetism. Topics include multipole fields, electromagnetic field equations, electromagnetic waves, reflection and refraction, radiating systems, classical electron theory, spherical waves, interference phenomena, and diffraction theory. Prerequisite or co-requisite: PHY 341 or permission of instructor.

PHY 467/567 Seismology (3)
Active learning course on seismology covering theory and application. Topics will include elastic wave propagation, reflection/refraction seismology, waveform modeling, tomography plate kinematics, and time series analysis. Applications will focus on earthquakes and large-scale tectonics. Cross-listed with GLG 467/567.

PHY 471/571 Advanced Electronics (3)
Applications of solid state electronic devices and circuits. Includes laboratory experience with discrete devices, integrated circuits, and transducers, and their application to measurements in research situations. Prerequisite: PHY 291, 292, 294.

PHY 480 Departmental Honors (1-6; maximum 6)
Departmental honors may be taken for a minimum of four semester hours and a maximum total of six semester hours, in one or more semesters of the student's senior year.

PHY 481/581 Gravitation and Space Time (3)
Beginning with the Lorentz invariance of Maxwell's equations, a relativistic theory of motion is described for inertial reference frames. This forms a framework for discussing Einstein's theory of gravitation. Prerequisite(s): PHY 341 or instructor permission.

PHY 486/586 Advanced Computational Physics (3)
Develops computational skills necessary to apply mathematics and physics to the investigation and solution of non-analytic problems of physical interest. Topics will include, but are not limited to, celestial mechanics, fluid mechanics, and quantum mechanics. The physical basis of these topics can often be understood at the undergraduate level, but require sophisticated computational methods for their actual solution. This course will develop and apply those methods.

PHY 488 Research Capstone in Physics (3) MPC
Experience all phases of doing scientific research: select a topic to be investigated, read the relevant literature, develop a research plan, perform the experiments and/or computations, interpret the data, interact with other researchers, and write and present a final report. Prerequisite: PHY 291 and either 292 or 286, senior standing, and submission and approval of a written research proposal.

PHY 490S Topics in Physics Seminar (3) MPC
Applies and integrates the fundamental principles of undergraduate physics with a series of special topics. Individual student's research, give oral presentations, and lead discussions on an aspect of the semester's theme. Papers that incorporate a basic knowledge of physics with other subjects for Miami's liberal education curriculum provide the medium for student's expression of their critical analysis and evaluation of an important issue. Prerequisite: any physics 300-level course or permission of instructor.

PHY 491/591,492/592 Introduction to Quantum Mechanics I (4, 3)
Introduction to the quantum theory and its application to physical systems. Prerequisite: PHY 291. Pre- or co-requisite: PHY 341, or permission of instructor.

PHY 605 Teaching Physics with Toys Workshop (2-3)
Emphasizes physics topics that are typically taught in elementary and middle school: motion, energy, electricity, magnetism, sound and light. Collaborative inquiry-based activities apply basic physics principles to the operation of simple toys. For in-service teachers of grades K-9.

PHY 610 Research (1-10; maximum 10)
Independent research projects in theoretical or experimental physics.

PHY 620 Topics in Modern Physics (1-4; maximum 10)
Study of various topics of interest in physics not covered in formal course offerings. Prerequisite: PHY 451/551 or permission of instructor.

PHY 623 Solid State Physics (3)
Introduction to advanced concepts of solid state physics. Discussions center on the motion of electrons in more or less periodic structures, and the resulting properties. Topics include phonons, semiconductors, magnetism, supderconductors, and nuclear methods. Prerequisite(s): PHY 691 or permission of instructor.

PHY 642 Advanced Kinetic Theory and Statistical Mechanics (4)
Transport theory of gases; Chapman-Enskog development. Classical and quantum statistical mechanics with applications to many-particle systems.

PHY 651 Quantum and Nonlinear Optics (3)
The basics of electromagnetic interactions with matter are covered, including quantum and semiclassical theories of the laser, cavity quantum-electrodynamics, hamonic generation and down-conversion, the cooling and trapping of atoms, and quantum information theory. Prerequisite(s): PHY 691 or instructor permission.

PHY 671 Electromagnetism (4)
Electromagnetic theory and applications. Prerequisite: PHY 461/561 or permission of instructor.

PHY 681 Advanced Mathematical Physics (3)
Topics include the calculus of variation, Sturm-Liouville theory and special functions, operators and states in Hilbert space, symmetry and groups in physics.

PHY 691/692 Modern Quantum Physics (4, 4)
Fundamental concepts of quantum mechanics and the mathematical techniques of Schrodinger and Heisenberg. Computer solution of quantum mechanical problems. Prerequisite: (691) PHY 491/591, 492/592 or permission of instructor; (692) PHY 691.

PHY 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

POLITICAL SCIENCE COURSES (POL-Arts and Science)

POL 101 Politics and National Issues (3) MPF
Examination of major contemporary national issues, with emphasis on developing understanding and analytical skills for active citizenship. Includes attention to controversies about the structure and processes of American politics, as well as current debates about national problems and policy disputes. IIC.

POL 102 Politics and Global Issues (3) MPF
Exploration of contemporary issues in world affairs, with emphasis on developing analytical skills for understanding issues and active citizenship. Includes attention to current conflicts, crises, and emerging work problems, as well as efforts at conflict resolution and international cooperation. IIC.

POL 133 Imagining Russia (2)
Survey of Russian history, society, politics, economy, literature, film, and arts from a variety of intellectual perspectives. Classroom lectures plus out of class cultural presentations. Cross-listed with REL/RUS 133.

POL 142 American Politics and Diversity (4) MPF
Foundations and operations of the American political system, with emphasis on "the people" and how they belong to, challenge, and change the system. How the competing values of unity and diversity influence American politics. IIC, Cul.

POL 159 U.S. Identity Politics (3) MPF
Examines challenges posed by cultural diversity for views of American national identity. Explores problems of multiculturalism, individualism and national unity from historical and philosophical perspectives. IIC, Cul.

POL 179 Introduction to Jewish Studies (1)
Introduction to Jewish studies as a subject of academic study, basic concepts in Jewish studies and multidisciplinary approaches to Jewish studies. Cross-listed with ART, ENG, GEO, GER, HBW, HST, PSY, REL.

Advanced Political Science Courses

Note: Course prerequisites are listed below:
300- and 400-level: POL 201 is required for POL 302 and 303. POL 306 is required for POL 466. POL 271 is required for upper division courses in the field of international relations. All other upper division courses require POL 241 and three additional POL hours, or six hours of 200-level POL courses, or 12 semester hours of social science courses or permission of instructor. 400-level seminars and independent study courses require permission of instructor. POL 307 and internships (POL 340) require prior permission of instructor and department chair.

500- and 600-level: open to graduate students and to qualified seniors with permission of the Graduate School, department chair, and instructor.

700- and 800-level: open to advanced graduate students.

POL 201 Political Thinking (4)
Examination of ideas that justify or challenge political orders, such as nationalism, totalitarianism, militarism, anarchism, capitalism, socialism, communism, liberalism, conservatism, feminism, elitism, and democracy.

POL 208 The Rise of Industrialism in East Asia (3) MPF
Introduction to historic parameters, geographic variables, state policies, and sociocultural contexts of industrialism in East Asia (China, Japan, Korea, Taiwan, Hong Kong, and Singapore). Cross-listed with GEO, HST, ITS, and SOC 208. IIIB, H.

POL 220 Movies and Politics (2)
Course uses popular films and television clips to introduce important political issues and processes to a broad set of students. The movies for this course will focus on the actors, issues, and processes that are involved in politics. Offered credit/no credit.

POL 221 Modern World Governments (4)
Comparative introduction to the development, governmental structures, and political processes of societies in modern world. Case studies used to relate theories to actual problems and governing strategies in contemporary political systems.

POL 230 Topics In Russian Culture & Civilization (3) MPT
Introduction to major issues in Russian culture and civilization, including the fight against autocracy and totalitarianism, the existence of unprecedented state power, the struggle between backwardness and enlightenment, the contrast between Moscow-centered orthodoxy and Petersburg-centered opening to the West, the reasons for the collapse of the Soviet Union, and the struggle for democracy. Course will focus on interdisciplinary perspectives, drawing on literature, film, and non-fiction works in history and political science. Cross-listed with RUS 230.

POL 241 American Political System (4)
Theories and methods of political analysis applied to the American political system. Political beliefs, behavior, institutions, and public policies in the American case will be examined.

POL 254 Introduction to Russian and Eurasian Studies (3)
Examines the major developments that have shaped Russian and Eurasian Culture, society and politics over the last millennium. The course incorporates perspectives from the social sciences, humanities and the fine arts. Cross-listed with ATH, REL, HST, RUS 254.

POL 261 Public Administration (4)
Introduction to public administration as a field of study and a major component of government; bureaucratic behavior and bureaucracy as formal organization; structures, settings, functions, and personnel of bureaucratic organizations and their effects on public policy and public service delivery.

POL 270 Current World Problems (1; maximum 6)
Examination of major international problems, with special attention to basic forces in world politics and relationship of these forces to present international problems. Offered infrequently.

POL 271 World Politics (4) MPT
Introduction to international politics, with emphasis on factors and processes producing harmony and conflict in interactions within the international system.

POL 276 Homeland Security and Critical Incident Management (3)
Focuses on the role of law enforcement within Homeland Security and critical incident response/management. Students are expected to critically analyze the conflict between civil liberties and civil defense within the context of Homeland Security, understand the sequence and importance of critical incident management, and learn how to effectively implement law enforcement response and prevention tactics. Cross-listed CJS 276.

POL 302 Classical Political Philosophy (4)
Study of the development of such notions as law, justice, obligation, and right of revolution through analyses of significant political philosophers from Plato to Rousseau. Offered infrequently.

POL 303 Modern Political Philosophy (4) MPT
Study of the development of the concept of the unalienated, autonomous person and consequences for political philosophy and political economy, as dealt with by Rousseau, Kant, Hegel, Marx, classical economists, and British Utilitarians.

POL 306 Applied Research Methods (3)
Use of quantitative analysis in the public sector; consideration of the methodology of applied research. Special emphasis on research design and data-gathering techniques, including survey research, aggregate data analysis, cost-benefit analysis, and planning.

POL 307 Public Opinion Laboratory (2)
Practice in the execution of survey research with attention to questionnaire construction, sampling, interviewing, data coding, and data analysis. Discussion of ethical issues surrounding polls and the role of polling in a democratic polity.

POL 326 Comparative Ethnic Politics (3) MPT
A comparative survey of ethnic political relations and conflict in the contemporary world system. Examines theories, concepts, and analytical frameworks employed in the study of ethnic political behavior. Case studies are used to compare factors that influence and are influenced by ethnic politics in the developing, developed, and communist/post-communist countries

POL 328 Politics of Central Asia (3)
An introduction to the politics of Central Asia. The major political systems of the region and their relations with neighboring countries, such as Russia, China, Afghanistan, Iran and Turkey. Topics include national politics and nationalism, the politics of ethnicity, religion and gender, foreign and security policy, and the structure of civil society in the region.

POL 331 Development of the Russian Polity (3) MPT
Origin and development of Russian model, evolution of Russian political and revolutionary cultures, contribution of Marxism and Leninism to Russian and international revolutionary politics. Offered infrequently.

POL 332 Post-Soviet Russian Politics (3) MPT
Analysis of Soviet political system with special attention to its development, roles of the Communist Party and Soviet government, emphasizing decision-making process, legal system, and civil rights. Prerequisite: POL 331.

POL 333 Politics of Western Europe (4)
Comparative survey of social and cultural bases of politics, organization of political interests, style of political leadership, decision-making processes, governmental bureaucracies, and political strategies of social and economic change in major political systems of Western Europe.

POL 334 Politics of Eastern Europe (3)
Survey of political systems in the nations of Eastern Europe in the period since World War II. Focus on the cultural, social and historical peculiarities of the region, as well as the processes that reshaped the region in the post-communist era.

POL 335 Politics of East Asia (4)
Comparative analysis of politics of nationbuilding in China and Japan, with special emphasis on internal and external factors which led to transformation of traditional societies to socialist state in China and market-oriented polity in Japan; rise of East Asian industrial states and their roles in the international political economy.

POL 336 Politics of the Middle East (3)
Comparative survey and analysis of political systems and politics in the Middle East. Includes examination of selected states, non-states actors, international organizations, and key events in the region.

POL 337 Politics of Latin America (4) MPT
Diachronic analysis of Latin American political, social, and economic structures and processes, with special emphasis on the study of how the interrelationship between them crystallizes into democratic and authoritarian regimes and how tensions underlying these regimes produce further changes.

POL 338 Contemporary African Politics (3)
An overview of major issues in African politics and the international politics of Africa. Its scope is "Africa south of the Sahara" and is intended to appeal to a variety of interests, from global and continental to modernization, gender and Marxist theories of development, conflict, inequality, and underdevelopment. Cross-listed with BWS 339.

POL 339 Arab Nationalism In World Politics (3)
The origins, ideas, and socio-political impact of Arab nationalism and Islam. The convergence and divergence of these forces, as well as developments in particular places and cases.

POL 340 Internships (1-12; maximum 16, on credit/no-credit basis)
Supervised work experience in federal, state, and local government organizations, public service, and political institutions. Prior permission of instructor, department chair, and dean required.

POL 342 American Political Careers (3)
Examination of political careers in America, including issues of ambition, motivation, choices, and responsibility in political life. Use of political science materials, literature, and other sources to make analytical statements about life in the American political arena.

POL 343 American Presidency (4) MPT
Evolution of the presidency, its powers and restraints; organizing and using White House staff; executive decision- making; contemporary views of the office.

POL 344 U.S Congress (3) MPT
Sociology and politics of legislative process; legislative recruitment, structure and influence of the committee system, impact of party leadership, and nature of legislative decision-making.

POL 345 National Issues (3)
Examination of major contemporary domestic national issues, especially pollution, health care, inflation and recession, crime, income distribution, poverty, federal budget.

POL 346 Global Gender Politics (3) MPT
Examination of the role of women in political participation, political protest, and political and economic development worldwide. Explores the usefulness of gender as a conceptual tool for comparative analysis, and uses case study material from the developed and developing world to examine how women's involvement in politics both shapes and is shaped by various political contexts. Cross-listed with WMS 346.

POL 347 Women and the Law (3)
Examination of the evolution of sex-based classifications in American law. Considers the role of law as an agent of social change. Cross-listed with WMS 347. Offered infrequently.

POL 351 Criminal Justice (4)
Survey and analysis of major components of the system of criminal justice with emphasis on law enforcement, judicial process, and corrections.

POL 352 Constitutional Law and Politics (4) MPT
Supreme Court as a legal and political institution; leading judicial decisions with respect to separation of powers and federalism.

POL 353 Constitutional Rights and Liberties (4) MPT
Leading cases and related materials on the Bill of Rights and 14th Amendment.

POL 354 Political Parties and the Election Process (3)
Nature, functions, organizations, and activities of political parties and the processes of nomination, campaigns and elections in the American political system, with a comparative analysis of parties and the election process in other political systems.

POL 355 Public Opinion and Political Behavior (3)
Legitimate and non-legitimate political behavior of citizens, including electoral behavior, political recruitment, violence, and apathy; origins, appearance, and impacts of mass and elite opinions and ideologies.

POL 356 Mass Media and Politics (3) MPT
Mass media, especially television, in politics in the United States, with comparisons to nature, roles, and impacts on politics of the mass media in other countries. Emphasis given to mass media as instruments of political communication and opinion leadership, and as tools of political influence and control.

POL 357 Politics of Organized Interests (3)
Nature, functions, organizations, and activities of interest groups in the American political system with a comparative analysis of interest groups in other political systems.

POL 362 Administrative Politics and Decision Making (3)
Decision making and policy formation in the public administrative and bureaucratic setting, comparative analysis of competing models of bureaucratic decision making, bureaucracy as a policy making institution, politics of regulatory agencies and governmental budgetary process.

POL 363 Administrative Law (3)
Administrative law and procedures; legislative delegation of power; administrative rule making, promulgation and enforcement; scope and constraints; appeals; controlling administrative discretion; public participation and access to information.

POL 364 Federalism and Intergovernmental Relations (3) MPT
Power and policymaking in the American federal system. Problems in managing, coordinating, and administering intergovernmental system, with case studies on fiscal federalism and grants management, intergovernmental coordination, interstate relations, and federal reorganization.

POL 373 American Foreign Policy (3) MPT
Theoretical and case studies in the formulation and conduct of American foreign policy; analysis of the role of personality, intelligence gathering, decision making, and diplomacy in the execution of foreign policy.

POL 374 Comparative Foreign Policies (3) MPT
Comparative analysis of foreign policies of representative world powers, including comparative methods of foreign policy analysis and world roles, foreign policy objectives, foreign policymaking and implementing processes, foreign policy actions and their consequences of such states as Britain, France, Russia, People's Republic of China, Egypt, India.

POL 375 International Relations of East Asia (3) MPT
Interpretative analysis of international politics in East Asia since World War II, including critical examination of the American role; current strategic and economic capabilities and policy options in People's Republic of China, Taiwan, Japan, Korea, Vietnam, and Russia, and their linkage to the international system.

POL 376 U.S. National Security Policy (3) MPT
Examination of U.S. national security and defense requirements, the defense policymaking process, U.S. national security interests in the post-Cold War era, the roles for nuclear weapons, new security issues, and the continuing tensions of searching for security in a democratic polity.

POL 378 Latin America: The Region and the World (3) MPT
Examination of the economic and political relations among Latin American nations and between Latin America and the industrialized world.

POL 381 Global Governance (3) MPT
Examines different approaches and institutional arrangements for promoting international cooperation and managing conflict, with special emphasis on developments within the United Nations system, the growth of transgovernmental cooperation, and the grassroots activities of nongovernmental organizations.

POL 382 International Law (3) MPT
Nature and principles of international law, with special emphasis on changing concepts and conflicting claims in the development of rules for the world community.

POL 386 Global Competition (3)
Critical evaluation of the interplay of political and economic factors in international relations. Special attention given to the impact of trade, multinational corporations, and commercial, technological, and industrial policy on international political relations and development of the U.S.A., Japan, Western Europe, and newly industrializing countries. Offered infrequently.

POL 387 Comparative Security Issues (3) MPT
Comparative analysis of security issues confronting developed and developing countries, with emphasis on traditional military security concerns, and nontraditional security concerns such as national economic development, food security, resource security, and human security.

POL 406 Public Policy Analysis Laboratory (2)
Practice in organizing a policy research team, preparing and presenting an applied policy research project. Practice in the application of program evaluation design, document analysis, interviewing, primary and secondary data collection, data analysis, legislative research, implementation analysis, organizational analysis, benefit-cost analysis, cost effectiveness analysis, and other applied policy research techniques and issues covered in POL 466. Must be taken concurrently with POL 466. Required for public administration majors, POL 466 Capstone.

POL 411/511 American Political Thought (4)
Examines how traditions of liberalism, republicanism, and religion have shaped American political ideas and culture. Attention to the thought of the Founding, Lincoln's refounding, feminism, and African-American political thought. Prerequisites: (411) POL 201; (511) graduate standing.

POL 419 Civil Society and Modern Politics (3) MPC
Capstone that discusses the nature of modern civil society, including a discussion of its nature, its historical origins, the problems that threaten its continued existence, and the possible solutions that might be used to preserve and maintain it. Cannot be counted to meet the minimum number of credit hours for a major in the department. Prerequisite: open to seniors who are either majors in political science or who, as non-majors, have taken the Political Thinking Thematic Sequence. Offered infrequently.

POL 423/523 European Union: Politics and Policies (4)
Exploration of the development, structure, and operation of the EC as well as its main policies and their effects on governments, business organizations, and other interests operating in the EC. Examines the interface between politics and economic activity within the EC and its role as a principal economic partner of the

U.S., an emerging security actor, and the world's most developed example of regional integration.

POL 424/524 Transatlantic Seminar: Politics of International Business (4-6; maximum 6) MPC
Concentrated examination of political climate of economic activity in Western Europe with special emphasis on operations, procedures, and policies of the European Community. Based at the European Center in Luxembourg, sessions are also held in Brussels, Paris, and/or other major centers as may be required by the program. Daily seminar sessions primarily with European specialists. Students have access to libraries, data archives, and specialist consultants of the European Community in preparing research. Prerequisite: POL 423/523 or equivalent. Summer only.

POL 425/525 British and Irish Politics (3)
Surveys the political culture, institutions, and policy processes of the United Kingdom and Republic of Ireland. Contemporary developments are examined in a comparative context that explore the impact of dramatic demographic, economic, and political change.

POL 426/526 Inside Washington (8)
Intensive study of the contemporary Washington community - government institutions, public officials, journalists, consultants, staff, and interest groups - through reading, lecture, on-site observations, expert presentations, discussion, research, writing, and internships. Program conducted in Washington, DC. Prerequisite: Permission of instructor. Cross-listed with COM 426/526and JRN 426/526.

POL 427 Inside Washington Semester Experience (4)
Intensive study of the contemporary Washington community-government institutions, public officials, journalists, consultants, staff, and interest groups-through reading, lecture, onsite observations, expert presentations, discussion, research, and writing. Program conducted in Washington. Prerequisites(s): Permission of instructor. Concurrent course(s): COM/JRN/POL 453; COM/POL/JRN 377 or 477; COM/JRN/POL 340.

POL 430 Seminar on Comparative Political Systems (4; maximum 8)
Reading, research, reports, and discussion on selected topics and problems.
430A Comparative Political Analysis
430B Political Systems of Russia and Eastern Europe MPT
430D Political Systems of Asia

POL 436/536 Politics of Iraq (3)
Politics in the state of Iraq, from the early 20th century to the present, with emphasis on struggles for democracy in the post-Saddam period. Prerequisite: POL 221

POL 438/538 Africa in the Global Economy (3)
The interactions of politics and economics in sub-Saharan Africa. Attention to relationships between domestic African economies and the global economy, particularly how these affect patterns of economic and social development, inequality, and political conflict. Exploration of efforts at African political and economic renewal, development efforts to overcome economic, social and political challenges, and the role of international economic institutions. Prerequisite(s): POL 271, POL 221 and POL 338 or permission of instructor. Cross-listed with BWS 438.

POL 439 North American Politics: Unity and Diversity (3) MPC
Focuses on the political, economic, and sociocultural integration of North America, as well as factors that impede such integration. Themes may include regionalism, NAFTA, immigration, labor organizing, women's movements, race and ethnicity, and environmental policy making. Students are expected to analyze issues from a diversity of perspectives and to participate actively in a collaborative learning environment. Prerequisite: senior standing; completion of POL 221 or 271 and appropriate Thematic Sequence, or permission of instructor.

POL 440/540 Havighurst Center Seminar (4)
Exploration of significant issues related to Russian and post communist affairs. Each semester focuses on a central theme or topic that is examined through presentations, readings, research, discussion, and writing. May be repeated once with only 4 hours counting towards graduation.

POL 454 The Washington Community (3 to 4)
This course focuses on the Washington, D.C., as a complex political-social system that is both the seat of American democracy and a metropolis plagued with typical urban problems. In this class, students will complement their study of the formal political and media systems in the "Inside Washington" course by focusing on the development and behavior of constituent communities within the city of Washington.

POL 459 Capstone Seminar on the American Political System (3) MPC
Examination of broad themes on the American political system through readings, research, writing, presentations, and discussions. Topics vary, within the broad themes denoted below, according to section. Prerequisite: open to seniors who are majors in the department or who have completed a Thematic Sequence in National Political Institutions, Public Law, or Effective Citizenship.

POL 459A American Political Culture MPC

POL 459B American Political Development MPC

POL 459C American Democracy Reconsidered MPC

POL 459D Governing the Nation from Washington MPC

POL 459E The American Agenda MPC

POL 459F Governing States and Communities MPC

POL 459G Practical Politics in the U.S. MPC

POL 459H Citizen Politics in the U.S. MPC

POL 459I Constitutional Politics in the U.S. MPC

POL 460 Seminar on Public Administration and Policy Analysis (4; maximum 8)
Readings, research, reports, and discussion on selected topics and problems.

POL 466 Public Policy Analysis (3) MPC
Final course in the public administration required core. Study of the stages of policy process including problem definition, policy formulation, implementation, impact, evaluation, and termination, and the role of the policy analyst in these processes. Co-requisite: POL 409 required. Prerequisite: POL 261, 306, and senior standing. Others who may take this Capstone include students who have completed the Public Management Thematic Sequence or those with permission of instructor.

POL 467/567 Public Budgeting (3) MPT
Theories and techniques of the role of the modern budget in determination of public policy, in administrative planning, control of government operations, and intergovernmental relations.

POL 468/568 Public Personnel Administration (3)
Influence of social and political values on public service concepts and institutions. Analysis of the decline of the spoils system and development of civil service. Problems, challenges, and prospects in managing human resources in the public sector at national, state, and local levels, including public service unions, civil liberties of public employees, equal opportunity, affirmative action, health and safety and public productivity. Credit for graduation not given for both POL 468/568 and MGT 401/501.

POL 470 Seminar on International Relations (4; maximum 8)
Readings, research, reports, and discussion on selected topics and problems.
470C International Law and Organization

POL 471 The International System (3) MPC
Provides opportunity to think critically about the meaning and implications of theories and concepts that have been introduced in their prior course work. Students encouraged to think carefully about how one might conduct research that is designed to test and assess the applicability of these theories and concepts to the international system, past and present. One basic focal point of the class is to think carefully about how well some of the traditional theories about international relations apply to the contemporary international arena. Prerequisite: open to senior political science and diplomacy and foreign affairs majors and to those who have completed an appropriate Thematic Sequence, or permission of instructor.

POL 486/586 Global Trade & Investment (4)
An examination of the political implications of global trade and investment. Special emphasis on the politics of market access, competition, industrial leadership, and transfer of technology, IP disputes, and the shift of manufacturing into the agglomeration economies in the East Asian region. Prerequisite: For 486: POL 271 or permission of instructor. For 586: graduate standing.

POL 487 Individual Lives and International Politics (3) MPC
Students consider the ways in which personal lives are interwoven into the political lives of nations and the world. Through the use of autobiographies, political histories of 20th century world affairs,

and primary documents, students explore the interaction of individual lives and international politics. Students construct their own political autobiographies in partial fulfillment of Capstone requirements. Prerequisite: senior standing and at least one course in international or comparative politics in the Department of Political Science.

POL 488/588 Russia and the Republics in International Relations (3)
Seminar examines the impact and consequences of the collapse of the Soviet Union on international relations. Special attention is devoted to examining the emerging relationships among the former Soviet Republics and between these states and the larger world community. Prerequisite: POL 271.

POL 489 Conflict Management in a Divided World (3) MPC
Focuses on devising ways to manage contemporary conflicts. Possible areas for investigation include international trade and investment, arms proliferation, ethnic strife, refugees, and immigration. This Capstone is designed as an exercise in collaborative learning to examine the underlying causes of a particular conflict, explore the different alternatives for managing and/or resolving it, and develop a set of constructive recommendations and a plan for implementation. Prerequisite: senior standing; must be major in the department, have completed an appropriate Thematic Sequence, or have permission of instructor.

POL 605 Globalization and Governance (4)
Study of political, economic, cultural, and security interdependence in the international arena. Prepares students to analyze the effects of globalization on domestic and international governance in the United States and worldwide, and to conduct related research.

POL 606 Quantitative Methods for Political Scientists (4)
Methods for analysis of data from all subfields of the discipline of political science. Use of statistical packages and computers.

POL 607 Intermediate Quantitative Political Analysis (4)
Multivariate research methods applied in research for all political science subfields. Assumes and advances skills in data analysis and statistical packages. Prerequisite: POL 606.

POL 608 Techniques of Political Analysis (4)
Advanced quantitative techniques of political analysis. Prerequisite: POL 605, 606, and 607. Offered alternate years.

POL 609 Qualitative Methods of Political Analysis (4)
Non-quantitative methods of political analysis examined and applied to areas of the discipline. Survey of classic and contemporary research employing qualitative approaches to political science. Prerequisite: POL 605 and 607. Summer only; offered infrequently.

POL 610 Seminar on Political Theory and Methodology (4; maximum 8)
Selected topics and problems in political theory and methodology. Offered infrequently.

POL 623 Proseminar on Comparative Political Analysis (4)
Graduate survey of field: basic concepts and definitions, development of scholarship in the field, current theoretical approaches and methods, survey of the major literature of comparative analysis and its contributors, and an overview of selected theories.

POL 630 Seminar: Comparative Political System (4)
The Russian Cultural Workshop allows undergraduate and graduate students to immerse themselves in Russian Culture through activities, excursions, and lectures form Miami faculty while applying their experiences to a specific academic discipline ("track") of their choosing. Guest lecturers from Russian universities will provide added perspective on issues and topics covered.
630A Comparative Political Analysis
630B Political Systems of the Russia and Eastern Europe
630C Political Systems of Western Europe
630D Political Systems of Asia
630E Political Systems of Latin America
630H Seminar in Ethno-Nationalism

POL 640 Public Affairs Internship (1-6; on pass/fail basis)
Supervised work experience in federal, state, and local government and nonprofit organizations. Prior permission of instructor and department chair required.

POL 641 Proseminar on the American Political System (4)
Graduate survey of the field: its development, scope, divisions, basic concepts, major literature, theories, and modes of analysis; major aspects of the field. Offered infrequently.

POL 650 Seminar on the American Political System (4; maximum 8)
Selected topics and problems in the field of the American political system.
650A The Presidency and Congress
650C Law and Judicial Politics
650D Political Parties, Interest Groups, and Behavior
650E The Mass Media and Politics
650F Environmental Politics

POL 660 Seminar on Public Administration and Policy Analysis (4; maximum 8)
Selected topics and problems in the field of public administration and policy analysis.
660A Public Administration
660B Public Policy Analysis

POL 661 Proseminar on Public Administration (4)
Graduate survey of the field of public administration: its development and scope, major literature, theories and modes of analysis; in-depth consideration of such major aspects as organizational theory and structure, bureaucratic behavior and policymaking, decision theory, comparative administration, budgetary process.

POL 664 Seminar on Federalism and Intergovernmental Relations (4)
Provides an understanding of the dynamics of and the interrelationships among and between the federal, state, and local levels of government. Analyzes origins, evolution, controversies, and prospects for survival of the American federal system and seeks to expand an understanding of intergovernmental relations in federal systems outside the U.S.

POL 666 Proseminar on Public Policy Analysis (3)
Graduate survey of the field of public policy analysis: its development and scope, major literature, theories and mode of analysis; major aspects of public policy in the American political system: national, state, and local.

POL 670 Seminar on International Relations (4; maximum 8)
Selected topics and problems in the field of international relations.
670A International Politics
670B Foreign Policy Analysis

POL 671 Proseminar on International Relations (4)
Graduate survey of principal areas and approaches to the field of international relations as a research discipline; development and scope of the field, major theories, and modes of analysis; logic and methods of various forms of inquiry and research in the several major areas of the field.

POL 672 Foreign Policy Analysis (4)
This seminar entails studying foreign policy in a comparative fashion - across countries, several time frames, different levels of analysis, etc. Examines foreign policy by looking at the ways in which scholars think about foreign policy. The first major task is to survey recent foreign policy scholarship. The second major task is to try to translate into useful information what scholars are doing for policy makers.

POL 673 U.S. Foreign Policy (4)
Seminar provides an overview of themes and approaches to the study of U.S. foreign policy within political science literature. Main approaches, methods, and critiques of U.S. foreign policy.

POL 674 Foreign Policy of Developing Countries (4)
Advanced seminar looks at the theory and practice of foreign policy in the developing or "Third" world. Examines the impacts of colonialism, neo-colonialism, economic weakness and dependence, internal conflict, and other factors of foreign policy behavior.

POL 675 American Trade Policy (4)
Examines trade theory, the role of the president and Congress in formulating and implementing trade policy, the American role in GATT and WTO, protectionism, trade and coercion, and current trade issues.

POL 681 International Organization (4)
The role of international governmental and nongovernmental organizations as instruments for dealing with problems in an increasingly interdependent world. Introduction to competing theories and approaches to multilateral cooperation and different frameworks for organizing at the international level.

POL 682 International Law (4)
Survey of international law and organization. Topics include theoretical approaches to the study of international law, the historical development of international law, and the nature and

function of international law and institutions in the contemporary world.

POL 683 International Political Economy (4)
Analysis of political institutions and international regimes that deal with problems of international economics, trade, and development. Emphasis on the politics of economic transition and globalization. Prerequisite(s): Graduate standing.

POL 695 Research Tutorial for Master's Degree (4)
Directed research on subject matter to be determined in consultation with student's adviser and director of tutorial.

POL 698 Teaching Political Science (1)
Theory and practice of teaching political science. Required of graduate students seeking appointment as teaching associates. Pass/fail registration only; credit may not be applied to the minimum requirements for a graduate degree. Summer only.

POL 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

POL 710 Research on Political Theory and Methodology (4; maximum 12)
Advanced research on selected topics and problems in political theory and methodology.
710A Research on Political Philosophy
710B Research on Empirical Theory
710C Research on Methods of Policy Analysis

POL 710A Research on Political Philosophy

POL 710B Research on Empirical Theory

POL 710C Research on Methods of Policy Analysis

POL 730 Research on Comparative Political Systems (4; maximum 12)
Advanced research on selected topics and problems on comparative political systems.
730A Comparative Political Analysis
730B The Political Systems of the Soviet Union and Eastern Europe
730C The Political Systems of Western Europe
730D The Political Systems of Asia
730E The Political Systems of Latin America

POL 730A Comparative Political Analysis

POL 730B The Political Systems of the Soviet Union and Eastern Europe

POL 730C The Political Systems of Western Europe

POL 730D The Political Systems of Asia

POL 730E The Political Systems of Latin America

POL 750 Research on the American Political System (4; maximum 12)
Advanced research on selected topics and problems on the American political system.
750A The Presidency and Congress
750C Law and Judicial Politics
750D Political Parties, Interest Groups, and Behavior

POL 750A The Presidency and Congress

POL 750C Law and Judicial Politics

POL 750D Political Parties, Interest Groups, and Behavior

POL 760 Research on Public Administration and Policy Analysis (4; maximum 12)
Advanced research on selected topics and problems on public administration and policy analysis. Offered infrequently.
760B Public Policy Analysis

POL 760B Public Policy Analysis

POL 770 Research on International Relations (4; maximum 12)
Advanced research on selected topics and problems on international relations.
770A International Politics
770B American and Comparative Foreign Policy

POL 770A International Politics

POL 770B American and Comparative Foreign Policy

POL 780 Readings in Political Science (1-4; maximum 4)
Directed readings on selected topics in political science.

POL 780C China Political Economy Seminar (2)
Visit factories in major clusters of automotive and electronics production in Beijine, Tianjin, Changchun, the Shanghai-Zuzhou-Hangzhou High-Teck Triangle, and electronic component producers in the Shenshen-Dongguan-Shekou area. Structured discussions prepare students for interaction with officials, foreign and local executives and operational personnel; walk-through tours of major manufacturing and assembly facilities, including clean-rooms, state of the art assembly lines, low-tech, labor intensive casting, and more traditional Chinese metal working workshops and assembly operations. Prerequisites: POL 335/435, POL 386/486 or equivalent. Permission of instructor required.

POL 780T Transatlantic Seminar on European Union
The Transatlantic Seminar is a pre-professional program designed to build the background and analytical skill of participants concerning the politics, policies, structure and operation of the contemporary movement toward European integration and, especially, the European Union. The seminar meets with leading European specialists in Paris, Berlin, Prague, Luxembourg, Brussels, and London. POL 423/523 or approved equivalent is a prerequisite for participation. Participants are admitted by permission of instructor only.

POL 790 Directed Study in Political Science (1-16; maximum 24, on Credit/No Credit basis)
Directed and supervised study in doctoral student's major and minor fields of comprehensive examination preparation, including tutorials and reports. Prerequisite: completion of field course credits for doctoral degree.

POL 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60)

PORTUGUESE COURSES (POR-Arts and Science; Department of Spanish and Portuguese)

POR 204 Brazilian Culture Through Popular Music (3)
Through music, lyrics and rhythms this course raises questions about history, national identity, social, religious, and ethnic diversity in Brazil. Cross-listed with BWS/FST/LAS/MUS 204.

POR 111 Accelerated Introduction to Portuguese (4)
Intensive language course that allows students to complete the equivalent of first-year Portuguese in one semester. For those with background in Spanish or another Romance language, this course concentrates on basic skills and prepares students for POR 211. Prerequisite: SPN 101, 102 or 111 or FRE 101, 102 or ITL 101, 102; or three years of a high school Romance language.

Advanced Portuguese Courses

Note: POR 111 or equivalent is minimum prerequisite for all advanced Portuguese courses. Portuguese courses are available through independent studies.

POR 211 Intermediate Portuguese (4)
Intensive language course that allows students to complete the equivalent of Portuguese in one semester. Prerequisite: POR 111. CAS-A.

POR 311 Composition and Conversational Portuguese (3)
Focuses on promoting the students' abilities to express themselves accurately whether in writing or speaking Portuguese. Prerequisite: POR 111 and 211.

POR 315 Introduction to Lusophone Literature (3)
An introduction to the literature from Portuguese-speaking countries. Prerequisite: POR 111 and 211. CAS-B-LIT.

POR 381 African Lusophone Literature (3)
A focus on questions of gender, race, class and stereotypes in the African Lusophone countries. Taught in English. Prerequisite: Any literature course. Cross-listed with ENG/BWS/FST. CAS-B-LIT.

POR 383 By or About (Afro-)Brazilian Women (3)
Addresses questions about gender, race, class and stereotype of women's bodies in 20th-century Brazil. Cross-listed with BWS/ENG/FST/WMS 383.

PSYCHOLOGY COURSES (PSY-Arts and Science)

PSY 111 Introduction to Psychology (4) MPF
Introduction to content, methods, issues, and theories of psychology. Credit not granted to students who have earned credit in EDP 101. IIC.

PSY 179 Introduction to Jewish Studies (1)
Introduction to Jewish studies as a subject of academic study, basic concepts in Jewish studies and multidisciplinary approaches to Jewish studies. Cross-listed with ART, ENG, GEO, GER, HBW, HST, POL, REL.

PSY 200 Selected Topics of Psychological Inquiry (1-3; maximum 4)
Selected topics emphasizing application of psychological principles and methods to contemporary issues. Information on topics to be offered each term is available in department office.

PSY 210 Psychology Across Cultures (3) MPF
A topics course, focused on the examination of culture and cultural perspectives, within the United States and globally, as frameworks through which theories and findings of the field of psychology may be critically evaluated. Prerequisite: PSY 111. IIC, Cul.

PSY 211 Psychological Perspectives on Leadership and Pedagogy in the College Classroom (2)
Prepares students to serve as discussion leaders in PSY 111. Students will learn about good pedagogical practices; resources offered by the university to support student learning; and intellectual development in college students. Prerequisite(s): PSY 111 and permission of instructor.

PSY 212 Practicum in Leadership and Pedagogy (3)
Students will lead a 50-minute discussion section connected to PSY 111. Course participants will be provided ongoing supervision to facilitate their development as discussion leaders and leaders in the undergraduate community in supporting student learning; and intellectual development. Prerequisite(s): PSY 111 and PSY 211.

PSY 221 Social Psychology (3)
Theories and research findings of social psychology including social cognition, intergroup relations, social perception and judgment, social relationships, social influence and persuasion, and group processes. Prerequisite: PSY 111.

PSY 231 Developmental Psychology (3) MPT
Psychological development over the lifespan; research and theory in physical, perceptual, cognitive, language, and socio-emotional development.

PSY 241 Personality (3)
Bases and acquisition of personality, emphasizing principles, theories, and research. Prerequisite: PSY 111.

PSY 242 Abnormal Psychology (3) MPT
In-depth survey of symptoms, causes, diagnosis, and treatment of major psychological disorders including functional and organic psychoses, neuroses, personality disorders, psychophysiological disorders, affective disorders and suicide, alcoholism and other drug use disorders, psychosexual deviations, mental retardation, and abnormal behaviors associated with childhood, adolescence, family, and old age. Prerequisite: PSY 111.

PSY 251 Introduction to Biopsychology (3)
Introduction to basic research and theory in physiological psychology: brain mechanisms and consciousness, memory, thought, emotion, and stress. Basic neurophysiology and neuroanatomy, as well as nervous system-endocrine system integration are included.

PSY 271 Cognitive Psychology (3) MPT
Introduction to basic topics in cognitive psychology including attention, perception and pattern recognition, memory, concepts and categories, problem-solving and reasoning, and language.

PSY 275 Introduction to Perception (3)
Introduction to basic research and theory in sensation and perception.

PSY 293 Introduction to Psychological Statistics (4)
Topics include probability, descriptive univariate and bivariate statistics, and statistical inference procedures such as t tests, analysis of variance, regression and nonparametric statistics. Prerequisite: STA 261. 3 Lec 1 Lab.

PSY 294 Research Methods (4)
Fundamental principles in psychological research and design as illustrated by: scaling, measurement, correlational and experimental procedures, naturalistic observation, etc. Provides information to draw appropriate inferences from data. Prerequisites: PSY 293.

Advanced Psychology Courses

Note: PSY 294 is a prerequisite to these courses. Students should also take a 200-level course in a given area of psychology (e.g., abnormal, biopsychology, social) before taking a 300- or 400-level course in that area.

PSY 320 Advanced Topics In Psychology (1 to 4)
Advanced consideration of selected topics, emphasizing the application of psychological theories, principles, research and methods to focused phenomena, including contemporary issues.

PSY 324 Advanced Social Psychology (3)
Advanced topics in contemporary social psychology. Prerequisite: PSY 221 and PSY 294 or permission of instructor.

PSY 325 Psychology of Prejudice and Minority Experience (3)
Consideration of psychological factors underlying prejudice toward racial, ethnic, and other minorities. Impact of prejudice and discrimination on members of minority groups. Prerequisite: PSY 221 and PSY 294. Cross-listed with BWS 328.

PSY 326 Psychology of Women (3)
Review and integration of emerging theory and research about women and their behavior, with particular attention to uniquely female experiences throughout the life cycle and to the influences that affect women in contemporary society. Prerequisite: PSY 221 and PSY 294. Cross-listed with WMS 326.

PSY 327 Introduction to Social Cognition (3)
Consideration of cognitive factors underlying social interaction and thought. Discussions of how we encode, interpret, process, recall and respond to social stimuli. Prerequisites: PSY 221 and PSY 294 or permission of instructor.

PSY 328 Psychology of Stigma and Victimization (3)
Examination of the interplay between cognitive, emotional, and behavioral factors as they evolve in relationships between deviation and normal persons. Emphasis on beliefs that people hold about persons with specific marks or stigma, as well as the impact of such beliefs upon victims of stigmatization processes. Prerequisite: PSY 221 and PSY 294.

PSY 332 Child Development (3) MPT
A survey of research and theory on physical, cognitive and social development in infancy and childhood. Prerequisite: PSY 231 and PSY 294.

PSY 333 Adolescent Development (3) MPT
Survey of research and theory on physical, cognitive, and social development in adolescence. Prerequisite: PSY 231 and PSY 294.

PSY 334 Adulthood and Aging (3) MPT
Psycho-social functioning across adulthood with a focus on middle and old age. Changes in and determinants of body structures and functions, motor skills, intelligence and cognition, personality, and social behavior. Prerequisite: PSY 231 and PSY 294.

PSY 343 Psychopathology (3) MPT
Physical, developmental, and social sources, symptoms, treatment, and prevention of abnormal behavior; emphasis on current research and theory. Prerequisite: PSY 241 or PSY 242; and PSY 294.

PSY 344 Analysis of Interpersonal Behavior in Small Groups (3)
Study of interpersonal relationships and group processes in an unstructured discussion course. Class members form a self-analytic training group. Problems for analysis are drawn from the development of the group. Prerequisite: PSY 241, PSY 294 and permission of instructor. Offered infrequently.

PSY 345 Childhood Psychopathology and Developmental Disabilities (3) MPT
Study of children considered biologically, psychologically, and/or socioculturally deviant. Psychological theory and practice are emphasized. Prerequisite: PSY 231, PSY 242 and PSY 294..

PSY 348 Later Generations of the Holocaust: Psychological Effects (3)
Course examines the powerful, prolonged, detrimental psychological impact of the Holocaust on later generations of survivors.

PSY 350 Advanced Topics in Personality Theory and Research (3)
Topics in personality theory and research at an advanced undergraduate level. Prerequisite: PSY 241 and PSY 294.

PSY 351 Advanced Biopsychology (4)
Current theories and research in sensory information processing, motivation, emotion, and learning and memory. Laboratory includes basic experiments in physiological psychology and anatomy of sheep brain. Prerequisite: ZOO 305 or (PSY 251 and PSY 294). 3 Lec. 1 Lab.

PSY 356 Psychopharmacology (3)
Survey of the major classes of psychoactive drugs. In addition to behavioral and psychological effects, emphasis is placed on sites and mechanisms of drug action. Prerequisite: ZOO 305 or (PSY 251 and PSY 294).

PSY 372 Learning and Cognition (3) MPT
Theories and empirical findings of learning and cognitive phenomena including behavior analysis, conditioning, discrimination, memory, learning, and thinking. Prerequisite: PSY 271 and PSY 294. 3 Lec. 1 Lab.

PSY 373 Introduction to Mathematical Psychology (3)
Application of mathematical techniques in psychological theory including introduction to measurement and scaling, decision theory, and mathematical models of learning and memory. Prerequisite: One of the following: PSY 294, STA 301, STA 368 or STA 462.

PSY 374 Psychology of Language and Thought (3) MPT
Provides an acquaintance with research and theory in thinking, communication, psycholinguistics, and relation of language to thought processes. Prerequisite: PSY 271 and PSY 294.

PSY 375 Perception (4)
Current theories and research on perceptual phenomena with experiments in human perception. Prerequisite: PSY 294. 3 Lec. 1 Lab.

PSY 376 The Psychology of Reasoning and Problem Solving (3)
An exploration of theories and research on processes of formal and informal reasoning and the solving of well-structured and ill-structured problems in various knowledge domains. Prerequisite(s): PSY 271 and PSY 294.

PSY 400 Senior Honors in Psychology (3)
Focus on developing scientific writing and methodological skills for students pursuing an honors thesis within psychology. Prerquisite(s): PSY 294 and permission of instructor.

PSY 410 Capstone Seminar in Psychology: The Multiple Determinants of Behavior (3) MPC
Promotes the integration of the student's knowledge of psychology to a particular topic within psychology. Prerequisite: PSY 294.

PSY 420 Seminar in Social Psychology (3)
Intensive study of a major topic in the general area of social psychology. Topic may be from among the following areas: socialization, social cognition, person perception, attributions, attitudes and stereotyping, small group, intergroup and organizational process, prejudice and victimization. Prerequisite: PSY 221 and PSY 294.

PSY 422/522 Economic and Social Decision Making (3)
Intensive study of social and interdependent decision making. Topics include decision framing and mental accounting, social exchange theory, social dilemmas (public goods problems, resource dilemmas), coordination, and market entry problems. Cross-listed with ECO 402.

PSY 430 Seminar in Developmental Psychology (3)
Current research and theory on topics in developmental psychology. Prerequisite: PSY 231 and PSY 294.

PSY 440/540 Special Topics in Psychopathology (3; maximum 9)
This course will offer students the opportunity to examine advanced topics in the study of child or adult psychopathology. Students will investigate in depth current research on the origins, developmental course, and outcomes associated with specific mental health problems in children or adults. Prerequisite(s): PSY 343 or PSY 345 depending upon topic offered.

PSY 451/551 Cognitive Neuroscience (3) MPT
Presents the modern science of understanding mechanisms of the mind in which cognitive theory is integrated with neuropsychological and neuroscientific evidence. Topics include the cognitive and biological bases of perception, attention, memory, language, hemispheric specialization, executive function, imagery, and consciousness. Techniques of cognitive science such as brain imaging (MRI, PET, ERP), the study of patient populations, and computational analyses will be integrated with content of the course. Prerequisites: ZOO 305 or one of the following: (PSY 251, 271, 273) and PSY 294).

PSY 453/553 Human Factors/Ergonomics (4) MPT
Introduction to the field of human factors. Application of principles of experimental psychology toward the goal of optimizing relations between the individual and technological products and environments. Prerequisites: (PSY 271 or PSY 273) and PSY 294.

PSY 456/556 Neurobiology of Learning (3)
Empirical and theoretical approaches to the neural basis of learning and memory. Emphasis is placed on neural mechanisms and recent development in the field. Prerequisite: PSY 351.

PSY 462/562 Work Space and Work Organization (3) MPT
Seminar concerned with the use of various tools for the description and analysis of the work environment. Covers three basic components: a) traditional approaches to task analysis; b) workplace simulation through the use of MicroSaint, a computer simulation tool; and c) an ecological approach to task analysis. Practice-oriented; majority of efforts devoted to analysis and discussion of actual work sites. Prerequisite: PSY 453.

PSY 470 Seminar in Cognition (3) MPT
Intensive study of a major topic within the general area of human cognition. Topic may be drawn from the areas of perception, memory, decision making, psycholinguistics, intelligence, or learning. Prerequisite: PSY 271 and PSY 294. Offered infrequently.

PSY 471/571 Spatial Cognition (3) MPT
Survey of current behavioral research on mental representations of spatial information. Topics include mechanisms of navigation, spatial updating, reference frames, development, memory, and individual differences. Prerequisite: PSY 271 and PSY 294.

PSY 473/573 Mathematical Modeling of Psychological Processes (3)
Develops quantitative tools for studying behavior, including experimental techniques, mathematical analysis, and computational models of cognitive, social, and brain function. Topics can include models of concept learning and categorization, attention, memory, decision making (group and individual), and neural networks. Issues such as model selection, evaluation, and simulation are integrated throughout. Prerequisite: (one of the following: PSY 294, STA 301, STA 368, STA 462) and (one of the following: PSY 221, PSY 251, PSY 271, PSY 273, PSY 373).

PSY 474/574 Advanced Cognitive Processes (3) MPT
Advanced introduction to central concepts in cognitive psychology. Primary topics include perception, attention, memory, categorization, skill acquisition and expertise, automaticity, decision making, visual imagery, and language. The neuroanatomical and neurophysiological implementation of basic cognitive processes will also be addressed. Prerequisite: PSY 271 and PSY 294 or instructor approval.

PSY 475/575 Fundamentals of Sensation and Perception (3)
Detailed overview of principles, mechanisms, and neural substrates underlying sensory processing in vision and audition. Prerequisite: PSY 273 and PSY 294 or instructor permission.

PSY 480 Independent Reading for Department Honors (1-6; minimum 4, maximum 6)
Prerequisite: senior standing and permission of instructor.

PSY 485/585 History and Systems of Psychology (3)
History of psychology from its early philosophical forbearers, through its development within various sciences, to a stage of quasi-maturity in the systems of late 19th and 20th centuries.

PSY 490 Capstone Experience in Psychology: Research Apprenticeship in Psychology (3; maximum 6) MPC
Allows students to integrate their work in psychology by participating in a specific faculty-directed research project. Minimum of three semester hours must be earned to meet the Capstone requirement. Prerequisite: permission of instructor.

PSY 492/592 Principles of Psychological Measurement (3)
Introduction to basic theory and principles underlying psychological tests and measurement procedures. Includes survey of selected current tests. 3 Lec. 1 Lab. Offered infrequently.

PSY 494/594 Correlation and Multiple Regression for the Behavioral Scientist (3)
Detailed treatment of correlation and multiple regression as used in contemporary psychological research. Prerequisite: permission of instructor.

PSY 495/595 Analysis of Variance for the Behavioral Scientist (3)
Detailed treatment of analysis of variance as used in contemporary psychological research. Prerequisite: permission of instructor.

PSY 496/596 Analysis of Covariance Structures for the Behavioral Scientist (3)
Topics include correlation, multiple regression, canonical correlation, multivariate analysis of variance, factor analysis, and causal modeling. Prerequisite: permission of instructor.

PSY 601 Statistics and Methods I (3)
Introduction to methodological issues and data analyses for applications in psychology. Topics include philosophy of science, the role of statistics, probability, sampling distributions and estimation, hypothesis testing, ways of collecting categorical data, shortcomings of and alternatives to hypothesis testing, Bayesian inference, correlation and causation, effect size and power, threats to internal validity, alternatives to quantitative analysis, ethical issues in research methodology, and computational methods of analysis. This is the first course in a two course sequence to be followed by PSY 602. Prerequisite(s): Graduate standing in Psychology or permission of instructor.

PSY 602 Statistics and Methods II (3)
A second course in the introduction to methodological design and analysis for applications in psychology. Topics include statistical assumptions and methodological consequences, one-way ANOVA, contrasts and trend analysis, factorial ANOVA, repeated measures designs, linear regression, causal modeling, ethics and alternatives to quantitative analysis. This is the second course in a two course sequence following PSY 601. Prerequisite(s): Graduate standing in Psychology and PSY 601, or permission of instructor.

PSY 603/604 Proseminar in Psychology I, II (1, 1)
Overview of contemporary psychology.

PSY 605 Multicultural Topics in Clinical Psychology (3)
Provides an exploration of issues related to culture and diversity in clinical research, theory, and practice with the aim of facilitating students' cultural competence. Prerequisites: Enrollment in a graduate program in the Department of Psychology and permission of instructor.

PSY 620 Seminar in Experimental Psychology (2-3)
Current research and theory in topics from experimental psychology.

PSY 630 Seminar in Social Psychology (3)
Current research and theory in topics from social psychology.

PSY 642 Theory of Assessment (1)
Modules offered in five-week sprint mode. Individual modules offered irregularly. Illustrative modules include interpreting correlation and multiple regression; principles and paradoxes; conditional probability and Bayesian approaches to prediction; decision theory; and theories of intelligence. Prerequisite: permission of instructor.

PSY 643 Psychopathology (1)
Modules offered in five-week sprint mode. Individual modules offered irregularly. Illustrative modules: schizophrenic disorders, affective disorders, personality disorders, borderline syndrome, genetics of psychopathology, psychoanalytic theories of neuroses, DSM-IV, women and mental health, family-systems models, interpersonal models, archetypal and alchemical perspectives, child and adolescent psychopathology, childhood hyperactivity, developmental disabilities, eating disorders of childhood and adolescence, emancipation and identity disorders of adolescence, college student mental health. Prerequisite: permission of instructor.

PSY 644 Methods of Assessment (1)
Modules offered in five-week sprint mode. Individual modules offered irregularly. Illustrative modules: MMPI, advanced MMPI, intellectual assessment, projective techniques, Rorschach, interviews, personal construct theory, person-centered approaches, analysis of verbal behavior, analysis of nonverbal behavior, ego development, interpersonal diagnosis, family-systems approaches, children, adolescents, learning disabilities, the difficult child, school consultations. Prerequisite: either admission to clinical program or approval by clinical faculty, and permission of instructor.

PSY 645 Intervention (1)
Modules offered in five-week sprint mode. Individual modules offered irregularly. Illustrative modules: client-centered, interpersonal, cognitive-behavioral, rational emotive, personal construct, existential, contextual, marital, family-systems, group, and play therapy; encounter growth groups; special issues in the treatment of women, children, and adolescents; clinical use of dreams; archetypal perspectives; therapy supervision; consultation and intervention in the school, community, and mass media. Prerequisite: permission of instructor.

PSY 646 Psychological Assessment I (3)
First course of a two course sequence designed to introduce doctoral students to psychological assessment. Course covers topics such as principles of psychological measurement, assessment issues with multi-cultural populations and the ethics of assessment. Contemporary theories of intelligence and use of the Wechsler Scales are also taught. Prerequisite(s): admission to Ph.D. program in clinical psychology.

PSY 647 Psychological Assessment II (3)
Second course of a two course sequence designed to introduce doctoral students to psychological assessment. Course covers topics such the diagnosis/assessment interface and specific assessment techniques such as interviewing, behavioral observations and measures such as personality, adaptive behavior and academic achievement are taught. Prerequisite(s): admission to Ph.D. program in clinical psychology and PSY 646.

PSY 648 Interviewing & Diagnosis: Fundamentals of Clinical Psychology I (3)
Basic principles and skills of interviewing. Overview of psychopathology with emphasis on interview as a diagnostic tool. Issues in clinical and professional development. Orientation to the Psychology Clinic. Prerequisite(s): Either admission to the clinical program or approval by the clinical faculty and permission of the instructor.

PSY 649 Ethics in Clinical Psychology (3)
Introduction to ethical theory and standards for the profession. Introduction to law and psychology. Issues in clinical and professional development. Prerequisite: Completion of PSY648 or approval of the clinical faculty and permission of the instructor. Prerequisite(s): Completion of PSY 648 or approval of the clinical faculty and permission of the instructor.

PSY 650 Independent Reading (1-5; maximum 20)
Supervised, in-depth study of circumscribed area of psychology. Prerequisite: permission of instructor.

PSY 651 Professional Development in Clinical Psychology (1)
Practical training in professional issues associated with being a clinical psychologist. Specific topics will be student driven. Prerequisite: either admission to the clinical program or approval by the clinical faculty and permission of instructor.

PSY 652 Systems of Intervention (3)
This course is designed to provide a broad overview of various theories of psychotherapy used for intervention (including treatment and prevention) in adult populations. In this course you will examine and apply various approaches to psychotherapy including: psychodynamic, humanistic, cognitive, behavioral, and systems perspectives. No single orientation will be espoused, rather, students will be expected to understand and apply treatment strategies based on a developmental-integrative model. A combination of lectures, class activities, readings, video clips, films and writing assignments will be used. Understanding the material at both theoretical and practical levels will be emphasized.

PSY 660 Special Clinical Problems and Methods (3)
Brief coverage of specialized topics important for clinical practice, but not included elsewhere in clinical program. Prerequisite: permission of instructor.

PSY 670 Graduate Placement in Psychology (1-4; maximum 12)
Supervised experience in psychological interventions in public and private agencies or settings. Includes both seminar meetings and on-site conferences. Prerequisite: admission to clinical program, approval by clinical faculty, and permission of instructor.

PSY 685 Practicum in the Teaching of Psychology (3)
Supervised experience in preparation and presentation of lectures, demonstrations, and evaluation in undergraduate psychology courses. Credit/no-credit only.

PSY 686 Continued Supervision of Teaching (1 to 2)
Orients graduate students to basic, practical issues related to college teaching, and to help students reflect on and improve their skills as teachers. To be taken concurrently with teaching responsibility.

PSY 687 Practicum Preparing Future Faculty I (1)
Orients graduate students to basic, practical issues related to college teaching, scholarship and service, and how these faculty roles are affected by institutional context. To be taken concurrently with

membership in the Psychology Department's Preparing Future Faculty program.

PSY 690 Research Practicum I (1-4)
Student serves in apprentice relationship to faculty member on a program of research. Prerequisite: permission of instructor.

PSY 692 Research Practicum II (1-3; maximum 6)
Assistance at increased level of responsibility with ongoing faculty research projects. Prerequisite: PSY 491/591 and permission of instructor.

PSY 694 Advanced Regression Analysis for Psychological Research (3)
Covers mediation, moderation, and multilevel modeling within the multiple regression framework with a focus on the relevance to applications within psychology.

PSY 697 Theory and Practice of Narrative Research (4)
Provides an introduction to the application of social constructionist epistemology and narrative methodologies in psychological research. Also provides an overview of conceptual frameworks and an opportunity for students to apply knowledge. Prerequisites: Graduate status and at least one previous graduate-level course in social science methodology.

PSY 700 Research for Master's Thesis (1-12; minimum 4, maximum 12)

PSY 710 Independent Research in Psychology (1-5; maximum 18)
Design and execution of an independent research project with faculty supervision.

PSY 720 Advanced Seminar in Experimental Psychology (1-4; maximum 18)
Consideration of a specialized topic in depth from current research literature in experimental psychology. Prerequisite: permission of instructor.

PSY 730 Advanced Seminar in Social Psychology (3-4; maximum 18)
Consideration of a specialized topic in depth from current research literature in social psychology. Prerequisite: permission of instructor.

PSY 740 Advanced Seminar in Clinical Psychology (1-4; maximum 18)
Consideration of specialized topics in clinical psychology. Prerequisite: permission of instructor.

PSY 750 Advanced Clinical Techniques (1-4; maximum 24)
Provides integration of theory and research in techniques of psychological intervention, with practicum experience in the application of these techniques. Prerequisite: PSY 641, admission to clinical program, approval by clinical faculty, and permission of instructor.

PSY 755 Continuing Clinical Supervision (1-3; maximum 3)
Provides ongoing supervision of cases in the Psychology Clinic after the end of PSY 750. Prerequisite: permission of instructor.

PSY 770 Advanced Seminar in Applied Psychology (2-4; maximum 18)
Consideration of specialized topic in depth from current research literature in applied psychology. Prerequisite: permission of instructor.

PSY 790 Advanced Seminar in Research Procedures (3; maximum 6)
Current methods of research design, experimental procedure, and analysis. Prerequisite: permission of instructor.

PSY 840 Internship in Psychology (1-6; maximum 12)
Year-long internship in clinical or research setting. Required of clinical students, optional for others. Prerequisite: permission of director of clinical training program or departmental chair.

PSY 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60)
Prerequisite: admission to candidacy for doctoral degree.

RELIGION COURSES, COMPARATIVE (REL-Arts and Science)

Note: Course prerequisites are listed below:

200-level: open to those with at least sophomore standing or permission of instructor.
300-level: open to those with at least junior standing or permission of instructor.
400-level: open to those who have 12 semester hours in humanities or social sciences, six of which must be in advanced courses, or permission of instructor.
500 and 600-level: open to graduate students and seniors who meet prerequisites of 400-level courses and obtain permission of department chair and instructor.
700-level: open to graduate students who have a minimum of 24 semester hours of advanced work in comparative religion or in related courses approved by department chair.

REL 101 American Religious Encounters (3) MPF, MPT
Introduction to the study of religion as a phenomenon of human culture. Various examples of religion are observed and compared in relationship to a thematic and methodological framework. IIB.

REL 102 Religion and Modern Culture (3) MPF, MPT
Examination of important theories of religion in the modern world. IIB, H.

REL 103 Themes in the History of Religion (3) MPF, MPT
Study of several major religious traditions as they develop over lengthy periods of time and across several different cultural settings, and as they interact with other dimensions of society. IIB, H.

REL 111 Religion and Popular Culture (3)
Examines various ways in which religious themes (myth, ritual, spirituality, morality, community) can be found in television shows, films, music, the internet, and other pop culture venues. While noting the complexity of the concepts of ¿religion¿ and ¿popular culture,¿ we will analyze the ways in which American popular culture represents, critiques, and shapes religion. As we proceed, we will also discover how cultural factors can determine whether or not we perceive religious themes and issues at play in American popular culture. Cross-listed with AMS.

REL 133 Imagining Russia (3) MPF
Survey of Russian history, society, politics, economy, literature, film, and arts from a variety of intellectual perspectives. Classroom lectures plus out of class cultural presentations. Cross-listed with RUS 133. IIB, IIIB Cul, H.

REL 175 Introduction to the Critical Study of Biblical Literature (3) MPF
Surveys origins, historical development, content of texts, both canonical & non-canonical, that contributed to the formation of the Bible against the background of the advent & continuing development of modern literary and historical-critical methods. IIB.

REL 186 Global Jewish Civilization (3)
How did the Jewish people persist through the vicissitudes of enslavement, conquest, dispersion, and return, over the course of three thousand years of history? In this course, we will study of the encounter between Jews and the cultures and lands in which they lived, through a consideration of Jewish sacred texts and literature, spanning the globe from Ancient Mesopotamia to modern America. IIB, IIIB, Cul, H.

REL 202 Religions of Asia (3) MPT
Study of Hinduism, Buddhism, and other religions in South and East Asia.

REL 203 Global Religions of India (3)
Explores the major religions of India and their growth outside India. Asks how these religions have contributed to the religious pluralism of America. Also asks how Asian American and non Asian American practitioners of these religions have changed the way that religion in practiced in India and other parts of Asia. Cross-listed with AAA. IIB, IIIB, Cul, H.

REL 207 Civilization of the Middle East (3) MPF
Survey of cultural, political, economic, and social developments in the Middle East viewed in geographical and historical perspective, with attention to images of the area prevalent in our society. IIC, Cul, H.

REL 209 Civilization of Africa (3) MPF
Survey of cultural, political, economic, and social developments in sub-Saharan Africa, viewed in geographical and historical perspective with attention to images of the area prevalent in our society. Cross-listed with ATH, BWS, GEO, and HST 209. IIC, Cul, H.

REL 211 Religions of the Hebrew Bible (3) MPT
Survey of the religion of ancient Israel from the beginnings of the nation to 587 B.C.E. Draws upon discoveries in the ancient Near East illuminating history, culture, and religion of ancient Israel. Prerequisite: REL 175.

REL 213 Social and Religious History of the Jewish People (3) MPF, MPT
Cultural, social, and religious history of Jews in Europe, America, and the Middle East since Enlightenment with emphasis on 20th century and in the context of the larger society and culture. IIB, H. Cross-listed with AMS 413.

REL 231 Paul and the Beginnings of Christianity (3)
History, institutions, and thought of early Christianity in the first two centuries, C.E., including the letters of Paul and early interpreters of Paul. Prerequisite: REL 175.

REL 232 The Development of Christianity: 100 to 451 (3)
Development of Christianity and interaction between religion, culture, society, and politics from second through fifth centuries. Cross-listed with HST 232. Prerequisite: REL 175.

REL 233 History of Christian Thought (3)
A survey of the history of Christian thought that introduces the major intellectual issues throughout Christian history, including understandings of God, evil, human nature, and salvation. Examines the diversity in Christianity between and within Orthodox, Catholic, and Protestant traditions. Explores the interaction between intellectual developments and historical context. Cross-listed with HST 233.

REL 235 Religions of Russia and Eurasia (3)
Explores the developments of religion in Russia from the tenth century to the present day. The course introduces students to Eastern Orthodox Christianity, the role of religion in Russia's history and culture as well as religious diversity in Russia and Central Asia.

REL 236 Eastern Christianity (3)
An examination of the second largest Christian confession in the world today, though one that is largely unfamiliar to most Americans--the family of Eastern Orthodox Churches. Eastern Orthodoxy is the dominant religion in Russia and other parts of Eastern Europe, the Balkans, and the Middle East. This course will consider the history and contemporary map of Orthodoxy as well as examine its distinctive approaches to theology, spirituality, and worship (including icons).

REL 241 Religions of the American Peoples (4) MPT
An introduction to the Jewish, Eastern Orthodox, and Roman Catholic traditions with emphasis on their transition to and development in North America. Cross-listed with AMS 241.

REL 242 Religious Pluralism in Modern America (4) MPT
Historical and cultural analysis of religious communities of the U.S. of primarily non- European origin. Includes African American, Native American, Latino, and Middle Eastern and Asian traditions, including Islam. Cross-listed with AMS 242.

REL 245 Women, Religion and Social Change in America (4) MPT
An exploration of various ways in which women lifted their own voices, engaged with societal issues, and constructed their communities and themselves through the institutions and frameworks of religion in America. Prerequisite: REL 101 or WMS 201 or by permission of instructor. Cross-listed with AMS 245 and WMS 245.

REL 254 Introduction to Russian and Eurasian Studies (3)
Examines the major developments that have shaped Russian and Eurasian Culture, society and politics over the last millennium. The course incorporates perspectives from the social sciences, humanities and the fine arts. Cross-listed with ATH, POL, HST, RUS 254.

REL 279 Buddhism and Culture: China and Japan (4) MPF
Deals with East Asia and time span of more than 15 centuries (from 4th through 20th). Provides historical overview of the development of Buddhism in China and Japan with a clear definition of theoretical framework of this religion. Investigates nature and extent of Buddhist influence on the imagination of intellectuals and lifestyle of the populace in general. All cultural phenomena, thematically treated, are interpreted within historical, social, economic, and institutional contexts, and in contrast to those of the West. IIB, H. Offered Infrequently.

REL 302 Methods for the Study of Religion (4) MPT
Classical and contemporary theories of the nature, origin, and function of religion in human society. Required for majors in comparative religion. Prerequisites: either REL 101, 102, or 103, plus at least 3 hours at the 200 level or above.

REL 311 Archaeology and Biblical Studies (3)
Archaeology of Syria-Palestine with attention to archaeological method and archaeological discoveries which illumine Biblical history and culture. Prerequisite: REL 175.

REL 316 The Age of the Reformation (3)
The religious revolutions of the 16th century, both Protestant and Catholic, in their social, political, and religious contexts. Topics chosen from: medieval reform movements and heresies; popular religion; the debates about clerical celibacy, free will, and the priesthood; social discipline and the modern state; family and women; the missions to the New World; the witch craze and the Inquisition. Cross-listed with HST 316.

REL 318 Religions of India (3)
Major traditions of India with special emphasis on Hinduism, Buddhism, and Jainism. Offered infrequently.

REL 323 Buddhism in India and South Asia (3) MPT
Explores the development of Buddhism in India and South Asia. Examines the relationship between early Buddhist values and those of the larger culture in India, especially with regard to the importance of marriage, family, and accumulation of wealth. As Buddhism spread to Nepal, Tibet, Sri Lanka, Burma, and Thailand, it was transformed by and effected profound changes within these other cultures. These cultural interactions are explored. Prerequisite: REL 202 or REL 324 or PHI 106 or permission of instructor.

REL 324 Buddhism in China, Korea, and Japan (3) MPT
The expansion of Buddhism from India to East Asia. Focus on Buddhism's encounter with, accommodation to, and influence on Chinese religion and culture. Also examines: Buddhism's permutations in Korea and its profound effect upon Japan. Open to any student with previous work either in East Asian culture or in Buddhism. Prerequisite: REL 202 or permission of instructor.

REL 326 Islam in History (3)
Origin and early history and rapid spread of Islam as a world faith, development of Muslim theology and culture, major groups and thinkers, and problems and issues of the present.

REL 333 Religion, Dress, and Status (3) MPT
Displays of status through constrictive dress and gender segregation will be explored with reference to religion, gender, and class. Course will explore the topic through selected case studies, several of which involve Islamic cultures. Cross-listed with WMS 333.

REL 334 Women's Religious Experiences in the Ancient Mediterranean World (3) MPT
Placing women's lives and experiences at the center, introduces a range of religious traditions Greek, Roman and Egyptian religions (temple cults, festivals, and domestic worship, Judaism and Christianity of the ancient Mediterranean world (roughly between 5th century BCE to 4th century CE). Particular attention is paid to differences among women in the ancient world and to women's contributions to ancient religions. Cross-listed with WMS 334. Offered infrequently.

REL 335 Women in the Bible (3)
Explores images of women in the Hebrew Bible, New Testament, and related literature from the Second Temple Period. We will explore the roles that women play within biblical narratives (as wives and mothers; as heroes and villains; as warriors, queens, and prophets), the variety of metaphorical/symbolic uses of femininity in biblical traditions, and examine the social and cultural contexts in ancient Israel and early Christianity in which these stories were generated. We will also play close attention to different interpretations of these ancient texts over the centuries and across cultures, and discover how modern feminist readings cast a new light on our understanding. Cross-listed with WMS 335.

REL 336 Jesus and the Gospels (3)
Jesus and his message according to the gospel material studied critically in historical context. Prerequisite: REL 175.

REL 340 Extended Independent Study (1-16)

REL 340 Extended Independent Study (1-16)
History and symbolic structure of American Protestantism and its role in the development of American culture. Cross-listed with AMS 341.

REL 343 African-American Religions (4)
An historical survey of the formulation and expression of African-American religions from slavery to the present, including culturally specific forms of Christianity and Islam, as well as reinventions and reinterpretations of African traditions. Prerequisite: REL 101 or BWS

151 or BWS 221 or permission of instructor. Cross-listed with BWS 343.

REL 360 Interdisciplinary Special Topics (1-4; maximum 8)
Course of study on a selected topic examined from the perspective of two or more disciplines.

REL 385 The Religious Roots of Anti-Semitism (3) MPT
Study of the religious roots of anti-Semitism, beginning with the New Testament, through the church fathers, and reformers, with particular attention to the impact of the ghetto in Jewish-Christian relations. Prerequisite: REL 211, 213, or 336 or permission of instructor.

REL 388 Jerusalem: The Meeting of Jews, Christians, and Muslims in the Holy City (3) MPT
Course focuses on the meaning of Jerusalem to Jews, Christians, and Muslims: the symbols of their religious expression, their cultural monuments, social co-existence, and political energies and conflicts in both the present and the past.

REL 390 Existentialism (4; maximum 8)
Study of major ideas in existentialist philosophers such as Camus, Heidegger, Jaspers, Kafka, Kierkegaard, Merleau-Ponty, Nietzsche, and Sartre. Repeatable with different content once. Cross-listed with PHL 390. Offered infrequently.

REL 392 Philosophy of Religion (4)
Study of major philosophical problems relating to religion. Topics drawn variously from Western or Eastern intellectual traditions or from both. Problems such as the meaning of religious utterances, existence of a divine being, life after death, relationship of faith and reason are treated. Cross-listed with PHL 392. Offered infrequently.

REL 402/502 Basic Structures in the History of Religions (4) MPT
Investigations of categories, types, and forms developed for the study of religions, such as the Sacred, the Holy, myth, initiation. Prerequisite: (402) 12 hours in Religion (including REL 302) or consent of instructor; (502) Admission to the graduate program or consent of instructor.

REL 413/513 American Religious Thought & Spirituality (4)
Reading and discussions on seminal texts in American religious thought and spirituality from colonial origins to the present. Content may vary, but representative authors include Anne Bradstreet, Jonathan Edwards, Henry Thoreau, William James, T.S. Eliot, Thomas Merton, and Annie Dillard. Cross-listed with AMS 413.

REL 430/530 Early Christian Literature and Religion (1-4; maximum 12)
Selected texts and/or themes of early Christianity studied critically in their historical and cultural context. Prerequisite: REL 231 or 336 or graduate standing or permission of instructor. Reading knowledge of Greek is desirable. Offered infrequently.

REL 440/540 Ancient Near Eastern Literature & Religions (1-4; max 12)
Selected texts and/or themes in ancient Near Eastern religions studied critically in their socio-historical and cultural context. Texts may include inscriptions, myths, legal documents, biblical/ non-canonical works, Dead Sea Scrolls or rabbinic writings. This is an advanced level seminar course. Prerequisite REL 211, 311 or permission of instructor. Offered infrequently.

REL 442/542 Religion, Society, and Culture in New England (4) MPT
Historical investigation of the ways in which religion, especially that of Puritan origin, has interacted with other aspects of social and cultural life in New England from colonial beginnings to the present. Cross-listed with AMS.

REL 445 Issues in the Study of Native American Religions (4)
This course focuses on the methods by which Native American religions have been studied and represented, and ways in which these methods and representations have been, and continue to be, critiqued. Prerequisite: REL 101 or 242.

REL 465 The Holocaust: Jewish and Christian Responses to the Nazi Destruction of European Jewry (4) MPT
Study of Jewish and Christian responses to the Holocaust, with specific attention to the historical causes of the event and to moral and theological implications. Prerequisite: REL 211, 213, or 336 or permission of instructor.

REL 470/570 Problems in Western Religious Thought (1-4; maximum 12)
Study of select problems, such as theism, religious knowledge and language, secularization, demythologization, myth and symbol, methods in religious inquiry, etc. Concentrates on one or two problems for discussion in and through selected readings and student papers. Offered infrequently.

REL 475 Judaism in Modern Israel (4) MPT
Study of complex character of Judaism in modern Israeli society and government with particular attention to the variety of Jewish religious expression and to problems of secularity, religion, and state.

REL 480 Independent Reading for Departmental Honors (1-6)

REL 600 Seminar in Comparative Religion (1-4; maximum 10)
Advanced and intensive study of limited subjects to be announced.

REL 600A Seminar in Comparative Religion (1-4)
Preparation for M.A. qualifying examinations. Required of all graduate students in comparative religion but open to other qualified graduate students.

REL 600B Seminar in Comparative Religion (4)
Preparation of thesis proposal and preliminary research. Normally taken in second semester of first year of study.

REL 600C Seminar in Comparative Religion (1-2)
Qualifying Examination. This course is designed to provide an opportunity for graduate students in Comparative Religion to demonstrate that they can understand, explain, apply, and/or evaluate influential methodological approaches to the academic study of religions. Required of all entering graduate students in Comparative Religion.

REL 610 Advanced Themes in the Study of Religion (2-4; maximum 10)
Exploration of a major theme in one or more religious traditions, with theoretically-focused research appropriate to individual programs of study.

REL 620 Practicum in Religion (1-2; maximum 6)
Required each semester of all graduate assistants as an adjunct to teaching duties. Must have a graduate assistantship in the department.

REL 630 Advanced Theories in the Study of Religion (2-4; maximum 4)
Critical examination of selected theories in the discipline of Comparative Religion. Research will analyze major theories and apply them to particular cases. Prerequisite(s): Graduate standing or permission of instructor.

REL 670 Reading and Research in Religious Thought (2-4; maximum 12)
Intensive research in specialized areas.

REL 680 Reading and Research in History of Religions (2-4; maximum 12)
Intensive research in specialized areas.

REL 690 Reading and Research in Religion and Culture (2-4; maximum 12)
Intensive research in specialized areas.

REL 700 Research for Master's Thesis (1-10)

REL 710 Reading & Research In Religion (2-4)
Intensive research in specialized areas.

RUSSIAN COURSES (RUS-Arts and Science; Department of German, Russian, and East Asian Languages)

RUS 101/102 Beginner's Course (4, 4)
Essentials of Russian language including rudiments of grammar, acquisition of a simple vocabulary, practice in reading and conversation, and simple written exercises.

RUS 105 Everyday Spoken Russian (1)
Introduction to the Russian language and culture with emphasis primarily on speaking. This sprint course will cover a broad range of language functions from introducing and describing oneself to making suggestions and asking for directions and requesting a service. Taught in Russian.

RUS 133 Imagining Russia (3)
Survey of Russian history, society, politics, economy, literature, film, and arts from a variety of intellectual perspectives. Classroom lectures plus out of class cultural presentations. Cross-listed with REL 133.

RUS 137 Russian Folklore (3) MPF, MPT
Introduction to Russian folklore, including study of the folk tale, charms and incantations, ceremonial poetry connected with the calendar, jokes, proverbs, folk ditties, wedding ceremonies, funeral customs, modern gestures, graffiti. Some discussion devoted to Slavic pre-Christian society and survivals of pagan customs in the Christian era. Considerable treatment of comparative folklore worldwide. IIB, Cul. CAS-B-LIT.

Advanced Russian Courses

Note: RUS 101 and 102 or equivalent are prerequisite for all advanced language courses.

RUS 201/202 Intermediate Russian (3, 3) MPT
Conversation, vocabulary building, readings, composition, grammar. RUS 202: CAS-A.

RUS 212 Secular Jewish Culture From the Enlightenment to Zionism (3)
Surveys key aspects of secular Jewish culture, identity, thought, society & politics from mid 17th to mid 20th century. Significant treatment of Jewish life in Western Europe (France & Germany) and Eastern Europe; shorter treatment of Jewish experience in US & Mandate Palestine. Readings in English. Cross-listed with FRE/GER 212 and HST 211.

RUS 214 Russian Reception of Classical Culture (3)
Introduces students to the study of the modern reception of antiquity, focusing mainly on the way Russian literature received, responded to, and resisted the Greco-Roman legacy. Emphasis on classical myths and literary figures of antiquity that were the most influential for the Russian poetic imagination. Readings include Lomonosov, Pushkin, Boris Pasternak, Tsvetaeva and Brodsky. All readings in English. Cross-listed with CLS/ENG 214.

RUS 250 Topics in Russian Literature in English Translation (3; maximum 9) MPT
Treatment of selected works of Russian literature that suggest particular thematic problems. For nonspecialist with little or no background in Russian literature. CAS-B-LIT.

RUS 251 The Eastern European Vampire Tradition in Folklore, History, and Literature (3)
Begins with a detailed examination of the folkloric and historical roots of the Eastern European vampire tradition. This will be followed by reading and discussion of representative nineteenth and twentieth-century literary works. CAS-B-LIT.

RUS 253 Jewish Identity and Russian Literature (3)
This course examines how images of Jews in mainstream literature helped form conceptions (and misconceptions) of Jewish identity in modern Russian culture. Taught in English. Cross-listed with ENG 253. CAS-B-LIT.

RUS 254 Introduction to Russian and Eurasian Studies (3)
Examines the major developments that have shaped Russian and Eurasian culture, society and politics over the last millennium. The course incorporates perspectives from the social sciences, humanities and the fine arts. Cross-listed with ATH, POL, HST, REL 254.

RUS 255 Russian Literature from Pushkin to Dostoevsky in English Translation (3) MPF, MPT
Examines works by Pushkin, Lermontov, Gogol, Turgenev, and Dostoevsky and a number of critical essays representative of a variety of viewpoints. Uses interdisciplinary approach that takes into account social, historical, political, religious, as well as literary factors. Cross-listed with ENG 255. IIB. CAS-B-LIT.

RUS 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) MPT
Treatment of selected works of Russian literature (realism, modernism, post-modernism) with special attention to Tolstoy, Chekhov, Bunin, Sologub, Bulgakov, Babel, Solzhenitsyn, and Nabokov. Cross-listed with ENG 256. CAS-B-LIT.

RUS 257 Russian Literature in English Translation: From Pasternak to the Present (3) MPT
Treatment of major trends in the development of Russian literature since 1953. Examines works by Pasternak, Solzhenitsyn, Rasputin, Trifonov, and others. Cross-listed with ENG 267. CAS-B-LIT. Offered infrequently.

RUS 258 Contemporary Russian Women's Writing (3)
A chronological and thematic introduction to Russian women's prose after 1953 and how this writing both critiqued and upheld gender inequalities in Soviet and Russian society. Taught in English. CAS B.

RUS 259 Russia's Imagined Orient: Caucasus and Central Asia on Page & Screen (3)
Investigates how modern Russian culture has represented the Caucasus and Central Asia through literature and film. Taught in English. Cross-listed with HST 259.

RUS 263 Soviet & Post-Soviet Russian Cinema (3) MPT
Critical survey of directors, genres, and movements in Soviet cinema. Screening of films from Eisenstein to current directors. Lectures, discussion, and readings in English. Cross-listed with FST 263. CAS-B-LIT.

RUS 272 Cultures and Identities of Eastern Europe: An Introduction through Literature and Film (3)
An introduction to the cultures of Eastern Europe, from Poland to the former Yugoslavia, through representative twentieth-century literary works and films, with particular focus on the history of Eastern Europe's Jewish community and the tragedy of the Holocaust. Cross-listed with FST 272. CAS-B-LIT.

RUS 301/302 Advanced Russian (3, 3) MPT
Conversation, advanced composition, reading in Russian literature. Prerequisite: RUS 202.

RUS 306 Peoples & Cultures of Russia (3)
Description and analysis of the cultures of Russia and Eurasia with a focus on non-Russian peoples and contemporary survival.

RUS 311 Reading in Russian (3)
Enables students to develop fluency in reading Russian texts. Core readings for all students and supplemental readings according to individual interests. Prerequisite: RUS 202 or equivalent.

RUS 401 St. Petersburg: History, Literature, Culture (3) MPC
Concentrates on one city, the "second capital" of Russia, St. Petersburg. In-depth study of the history, politics, literature, art, and architecture of St. Petersburg. Taught in English. Appropriate for students who have taken one of the Russian Thematic Sequences or for those with a concentration in Russian literature, history, or politics. Offered infrequently.

RUS 411/412 Advanced Conversation and Composition (3, 3)
Practice in oral communication and composition at the advanced level. Prerequisite: RUS 302.

RUS 450 Topics in Russian Culture (3; maximum 9)
In-depth study of a selected topic in Russian culture. Taught in Russian. Prerequisite: RUS 302 or permission of instructor. Offered infrequently.

RUS 451 Golden Age of Russian Culture (3)
Overview of Russian culture, literature, music, and art in its golden age (nineteenth century). Taught in Russian. Prerequisite: RUS 412 or permission of instructor. Offered infrequently.

RUS 480 Departmental Honors (4-6)
May be taken in senior year. Prerequisite: permission of instructor and department.

SOCIOLOGY COURSES (SOC-Arts and Science; Department of Sociology and Gerontology)

SOC 141 Multiculturalism in the U.S. (3) MPF
This course examines trends (demographic, historical, legal) in race, ethnicity, class, and gender that shape and reshape diversity in the United States. Examines the social dynamics of race, ethnicity, class, and gender, and how they influence institutional structures, social issues and policy, and the possibilities for social change. IIC, Cul.

SOC 151 Social Relations (4) MPF
Introduction to and application of the principles, methods, and major theoretical orientations of sociology in providing a basic understanding of the social aspects of human life. (MPF 151F for freshmen only.) IIC. Credit is NOT given for both SOC 151 and SOC 152.

SOC 152 Social Relations and U.S. Cultures (4) MPF
Introduction to and application of the principles, methods, and major theoretical orientations of sociology in providing a basic understanding of the social aspects of human life. Special attention

given to diversity in U.S. cultures. IIC, Cul. Credit is NOT given for both SOC 151 and SOC 152.

SOC 160 Selected Topics in Sociological Analysis (2; maximum 4)
Examination of selected issues employing sociological principles and methods. Credit not granted more than once for the same topic. Prerequisite: SOC 151.

Note: All courses require SOC 151 or 152 as prerequisite except SOC 141, 221, and 257, which require six semester hours of any social science. Prerequisite may be waived with permission of instructor. See note below on additional requirements for 400-level courses. Students cannot receive credit for both SOC 151 and 152.

SOC 165 Introduction to Social Justice Studies (3)
The Introduction to Social Justice provides a basis to understand, interpret, and solve social problems in fair, equitable, and just ways.

SOC 201 Social Problems (4) MPT
Introduction to causes, context, policy, and prevention of selected social problems with particular emphasis on problems of conflict and inequality and problems of human progress. Primarily recommended for sophomores.

SOC 202 Social Deviance (4) MPT
Sociological focus on drug use, sexual deviation, and alternative lifestyles and/or other socially defined deviant behaviors.

SOC 203 Sociology of Gender Roles (3) MPT
Description and analysis of gender in human society with special attention to constraints placed on both males and females by current socialization practices, and to issues in equality from historic as well as contemporary perspectives. Cross-listed with WMS.

SOC 205 Global Sociology (3)
Study of human societies in evolutionary and comparative perspective emphasizing sociocultural origins and consequences of social development. Special attention to contemporary issues in advanced industrial societies. Offered infrequently. Prerequisite(s): SOC 151 or 152.

SOC 208 The Rise of Industrialism in East Asia (3) MPF
Introduction to historic parameters, geographic variables, state policies, and sociocultural contexts of industrialism in East Asia (China, Japan, Korea, Taiwan, Hong Kong, and Singapore). Cross-listed with GEO, HST, ITS, and POL 208. IIC, Cul, H.

SOC 221 Human Sexuality (3)
Introduction to the study of human sexual behavior with particular attention paid to the issues of gender development; premarital, marital, and post-marital sexual patterns; birth control; sexual dysfunction; cross-cultural sexual patterns; and alternative sexual lifestyles. Cross-listed with FSW and WMS.

SOC 225 Work and Occupational Justice (3)
Introduction to the study of work, with an emphasis on the occupational structure, professions and professional powers, the employment relationship, and the institutional context in which work is done. Prerequisite(s): SOC 151 or SOC 152.

SOC 257 Population (3)
Examines population theory, characteristics, dynamics and policies, focusing on global processes and global inequality. Offered alternate years.

SOC 258 Self and Society (3)
Examines how social groups and institutions influence human behavior at the individual level. Introduces students to various theoretical and methodological issues germane to understanding how individuals construct social meanings of their everyday lives.

SOC 260A Internship: An Introduction to Applied Sociology and Human Services (1-4)
Offers a foundation for those considering careers in applied sociology, human services, or similar fields. In addition to internship, student attends minimum of five special-topics seminars and participates in a concluding internship seminar. Available primarily on Middletown campus and only on credit/no-credit basis. Sociology majors may not substitute this course for any SOC 440 course. Prerequisite: written permission of instructor.

SOC 262 Research Methods (4) MPT
Acquaints students with rationale underlying application of scientific methods in social research. Practical experience in problems of research and design and data collection.

SOC 272 Introduction to Disability Studies (3)
Explores the link between the social construction of disability and that of race, class, gender, ethnicity, and sexual orientation as they pertain to social justice in a multicultural and democratic society. Promotes critical analysis of dominant and nondominant perspectives on disability. Cross-listed with EDP/DST.

SOC 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)
Provides a critical analysis of the historical, sociological, cultural, media and educational images and representations of women with disabilities. Current research and theories from Disabilities Studies and Womens Studies will serve as the lenses for the exploration of disability as a social construct. The course will focus on exploration of oppressive social forces embedded in the re/presentations of and by women with disabilities which transform and complicate such images. Cross-listed with DST/EDP/WMS 278.

SOC 318 Sociology of Aging and the Life Course (3) MPT
Sociology provides a unique perspective on, and significant contributions to, the field of gerontology. This course uses sociological theories, perspectives, and conceptual frameworks to analyze aging-related social issues. Examines the social forces that shape the diverse experiences of aging for individuals. Emphasis placed on structural issues such as age stratification, the life course, and societal aging as a force in social change. Prerequisite: GTY 154. Cross-listed with GTY 318.

SOC 323 Social Justice and Change (3)
Study of how social justice is realized through social change, focusing on the individual and collective actions of people fighting for their vision of a just world and a just future. Prerequisites: SOC 165 or SOC 151 or SOC 152 or BWS 151 or DST/EDP/SOC 272.

SOC 335 Sociology of Education (4)
Selected critical issues in education as examined from a sociological perspective. Topics include the relationship of school to society, organizational structure of schools, schools as socializers, social stratification, future directions for education. Offered infrequently.

SOC 347 Urban Sociology (3)
Introduces social, cultural, organizational, institutional, and political-economic structures and processes that underlie urban areas and communities.

SOC 348 Race and Ethnic Relations (3) MPT
Description and analysis of emergence and trends of minority relations in the U.S. Cross-listed with BWS 348.

SOC 352 Criminology (3) MPT
Sociological analysis of theories, institutionalization, and social responses to crime and criminality. Prerequisite: SOC 151 or 152 and permission of instructor.

SOC 357 Medical Sociology (3)
Sociological study of illness, patients, medical professionals, and problems inherent in the delivery of health care services. Prerequisite: SOC 151, SOC 152 or GTY 154. Cross-listed with GTY 357.

SOC 358 The Sociology of Mental Disorders (3)
Study of social factors in cause, perpetuation, and treatment of emotional problems. Prerequisite: upperclass standing. Offered infrequently.

SOC 363 Sociology of Families (3)
Analysis of the impact of social change on family systems and patterns, structures, dynamics, and social policy, with emphasis on differences by social strata and culture. Cross-listed with FSW.

SOC 372 Social Stratification (3) MPT
Major theoretical approaches toward the study of social classes and social differentiation. Particular emphasis on the nature and consequences of stratification system within the United States.

SOC 375 (Dis)Ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)
Explores what it means to be ally to/in/with the disability community in America. The course emphasizes identity formation and how that formation can inform the construction of the ally identity. Through deconstructing learned values, knowledge, and images of disability that mitigate ally behavior, students discover the micro and macro structures that support ally behavior. By exploring how social control and social change have worked in other civil rights movements, students understand the necessity of identifying and including allies in the disability movement for civil rights. Cross-listed with DST/EDP/WMS 375.

SOC 378 Media Illusions: Creations of "The Disabled" Identity (3)
Provides a critical analysis of past and present media constructions of persons with disabilities. Through exploring theory and research

from diverse disciplines (communication, sociology, gerontology, educational psychology and others), students explore how perceptions of persons with disability are formed and analyze how the media is implicated in creating, distorting, and reflecting stereotypical and fictionalized images of disability. The course analyzes how these images shape public perception and reproduce the unequal power and privilege relationships that maintain the status quo while providing resources and techniques for the provision of alternative images of disability in various media genres. Cross-listed with DST/COM/EDP/WMS 378.

SOC 383 The Sociology of Religion (3)
Focuses on sociological approaches of studying religion-the empirical speculations on "acts of faith," people of faith, and associations between religion and other aspects of social life. Students will not only be exposed to key modern and contemporary theories of sociology of religion, cutting edge sociological studies of religion, but also learn hands-on skills of how to conduct sociological research on religion. Throughout the course, comparative and cross-cultural perspectives will be explored. It will not only cover major religious phenomena in the U.S., but also topics regarding religious practices and beliefs in other societies, as well as religion's transnational connections under global change.

Notes:

1. 400-level courses require upperclass or graduate standing and 12 semester hours of sociology or six hours of sociology and six hours from the following: anthropology, economics, geography, gerontology, political science, or psychology. Six of these hours must be advanced credit. Note specific prerequisite for SOC 440.
2. Upper level classes require the successful completion of SOC 151 or SOC 152.

SOC 409/509 Systems of Justice (3) MPT
Examines the history and practice of punishment in society. Surveys methods of punishment employed after conviction of criminals and delinquents. Prerequisite: SOC 352 and/or permission of instructor.

SOC 410/510 Topics in Criminology (3) MPT
Selected topics in the sociological study of crime and delinquency. Offered infrequently. Prerequisite: Permission of instructor.

SOC 411 Social Conflict (3) MPT
Examination of group and structural social conflict with emphasis upon analysis of organized power and the major social institutions. Study includes origins and theories of conflict development.

SOC 412/512 Sociology of Law (3)
Introduction to law as a form of dispute resolution and a mechanism of social control. Examines the law as both an independent variable and a dependent variable by studying the relationship between law and other social institutions using sociological theory and sociological research.

SOC 413/513 Juvenile Delinquency (3) MPT
Study of theories, definitions, and social construction of juvenile delinquency. Prerequisite: SOC 151 or 152, SOC 352, and permission of instructor.

SOC 417/517 Economy and Society (3) MPT
Sociology of work relationships within the major social organizational and institutional settings complemented by the study of the more general structures and relations generated within the economy and society as viewed in a comparative and developmental perspective.

SOC 435/535 Sociology of Death (3) MPT
Examines social processes involved in the meaning, management, and experience of death and dying. Analyzes death as it relates to social structure, patterns of social interactions, and human experience.

SOC 440A Field Experience in Applied Sociology (1-16; maximum 16)
Exposes students to realistic conditions involved in working in one of the following alternative settings and learning firsthand about problems and possibilities of this work as a profession. In addition to field placement, each student is required to participate in a proseminar accompanying the chosen alternative. Credit/no-credit only. Maximum of four hours in this course may be counted toward minimum hours required in the sociology major or appropriate minor.

SOC 440C Field Experience in Sociology (4-12)
Field placement in an agency, program, or institution dealing with the administration of justice, including law enforcement, the judicial process, corrections, juvenile justice, and victim's services. Typically limited to students formally enrolled in the Criminology Minor. Only 4 hours may be counted toward the minimum hours required in the sociology major/minor. Prerequisite(s): SOC 352 and SOC 409 (414). Students are expected to take SOC 410 or SOC 413 in the term following the internship.

SOC 448 The African-American Experience (3) MPT
Concentrates on a socio-historical analysis of the African-American experience. Purpose is to investigate and understand the interaction between race, power, privilege, institutional structures, and ideas associated with this experience in America; provides alternative perspective for viewing this experience. Cross-listed with BWS 448.

SOC 451/551 Family Violence (3)
Analysis of research and theory on family violence, including physical abuse of children, sexual abuse, neglect, premarital abuse, wife abuse, gay/lesbian battering, elder abuse, prevention, and intervention. Basic framework is ecological/feminist, emphasizing an examination of family dynamics as well as broader historical, social, and patriarchal contexts. Cross-listed with FSW and WMS.

SOC 454/554 Formal Organization (3)
Sociological analysis of complex organizations. Topics include theories, types of organizations, basic characteristics of organizations, organizational change and conflict, interactions with environments, and research in organizations.

SOC 459 Sociology Capstone (3) MPC
Involves review of the discipline of sociology and focuses on key issues including review of the tools of the discipline and the role of sociology in the student's future role as individual, employee, and citizen. Prerequisite: must be sociology major with senior standing and have completed or currently are taking the methods and theory requirements.

SOC 462 Applied Sociological Research (3) MPC
Provides basic skills needed to conduct applied sociological research. Emphasis on issues that need to be addressed in such research and processes used to answer questions. Prerequisite: SOC 262. Offered infrequently.

SOC 463/563 Gender and Aging (3) MPT
Examination of how gender constructions shape the aging process, with particular focus on how various social, psychological, physical, and cultural factors affect men, women, and transgendered persons differently as they grow older. Cross-listed with GTY 463/563 and WMS 463. Prerequisite: (463) GTY 154; (563) GTY 602 or permission of instructor.

SOC 470 Social/Political Activism (3)
Provides students with the opportunity to explore how indigenous groups effect change in their communities. Cross-listed with BWS. Prerequisite: SOC 151 or BWS 151.

SOC 480 Independent Reading for Departmental Honors (1-6)
Offered infrequently.

SOC 482 Sociological Theory (4)
General survey of the history and theories of society and social action arising out of social research since the 19th century.

SOC 490/590 Current Issues in Sociology (1-3; maximum 6)
Selected topics of importance on contemporary sociology. Offered infrequently.

SOC 494 Disability in Global and Local Contexts (3) MPC
Examines contemporary disability issues and policies and the lived experiences of persons with disabilities in international and local contexts, with emphasis on understanding disability within particular communities-both locally and in other countries-and on learning multiple research methods. Cross-listed with ENG/SPA/COM/DST and EDP 489. Prerequisite(s): Permission of instructor.

SOC 600 Seminar in Sociology (3; maximum 12)
Literature and methods of sociology.

SOC 620 Research in Sociology (1-12; maximum 12)
Supervised research or reading on selected topics in sociology. Prerequisite: graduate standing and permission of instructor.

SOC 650 Seminar on Selected Topics in Modern Sociology (1-3; maximum 12)
Selected topics, problems, and concerns in contemporary sociological theory. Offered infrequently.

SPANISH COURSES (SPN-Arts and Science; Department of Spanish and Portuguese)

Note: Students with prior Spanish must take the placement examination before enrolling in any Spanish course. Once placed, students may not skip a course in the sequence leading to SPN 202. No student may take SPN 101, 102, 111, 201, or 202 for credit/no credit.

SPN 101/102 Beginner's Course (4, 4)
Objectives: to read and understand ordinary Spanish without translation and to speak and write it with increasing ability.

SPN 110 Hispanic Cultures (1; max 4)
Introduces residents of the Spanish Corridor to basic aspects of Hispanic cultures; topics may include cinema, food, art, or popular culture. Credit/No credit only.

SPN 111 Intensive Basic Spanish (4)
Covers same material as SPN 101, 102. For entering students whose high school background in Spanish has not included all the basic grammar and whose preparation for enrollment in 201 is deficient. Upon completion of SPN 111, students enroll in SPN 201. Prerequisite: enrollment determined by placement exam. Credit earned in SPN 101 and/or 102 is considered duplication of credit.

Advanced Spanish Courses

SPN 201/202 Second Year Spanish (3, 3)
Intermediate Spanish grammar with a focus on speaking, writing short compositions and reading and discussion of selected texts with practice speaking and writing the language. Prerequisite: (for SPN 201) SPN 102 or 111 or placement exam score. (for SPN 202) SPN 201 or placement exam score. CAS-A.

SPN 241/242 Intermediate Conversational Spanish (2, 2) (241)
Intensive oral practice in simple face-to-face interactions involving exchange of personal information and routine social demands. (242) Intensive oral practice developing flexibility and fluency. Oral production developed on factual topics beyond personal information and routine social demands (narration, description of present, past, and future events). Credit/no-credit only. Prerequisite: (241) SPN 202; (242) SPN 241. Recommend concurrent or prior registration in SPN 311.

SPN 303 Introduction to Linguistics (4) MPF
Scope of linguistics, fundamental concepts and methods of linguistic science in its descriptive and historical aspects. Cross-listed with ATH and GER 309, ENG 303. Does not count toward the Spanish major or minor. V. CAS-E.

SPN 311 Grammar Review and Introductory Composition (3)
Continued development of the four linguistic skills with emphasis on grammar and writing. Prerequisite: SPN 202 or appropriate placement exam score.

SPN 312 Introduction to Spanish Language/Linguistics (3) MPT
Introduction to Spanish linguistics: phonology, morphology, syntax, lexicon, and pragmatics. Intensive pronunciation practice in Language Laboratory. Overview of Spanish language in relation to its history and to other Romance languages. Readings and lectures in Spanish. Prerequisite: SPN 311.

SPN 315 Introduction to Hispanic Literatures (3) MPF, MPT
Close reading and critical analysis of selected poetry, essay, narrative fiction, and drama from Spain and Latin America. Prerequisite: SPN 311, appropriate placement exam score, or appropriate AP score. IIB. CAS-B-LIT. Prerequisite: SPN 311.

SPN 316 Intermediate Spanish Composition (3)
Further development of essential grammar concepts of Spanish and the formal elements necessary to write Spanish with precision. Students are expected to perfect their understanding of grammar rules and to incorporate them into their writing. Prerequisite: SPN 311.

SPN 317 Business Spanish (3)
Provides students with the vocabulary and specific terms of the Hispanic business world, as well as an introduction to the cultural and social reality surrounding the business world in Spanish-speaking countries. Prerequisite: SPN 311 and SPN 316.

SPN 341 Advanced Conversational Spanish (2)
Intensive oral practice; speeches, talks, conversations, dramatizations. Credit/no-credit only. Prerequisite: SPN 242; recommend concurrent or prior registration in SPN 316.

SPN 342 Advanced Conversational Spanish (3)
Intensive oral practice; speeches, talks, conversations, dramatizations. Credit/no-credit only. Prerequisite: SPN 341. Recommended: Prior or concurrent enrollment in SPN 316. May be taken in a Spanish-speaking study abroad program. MAY BE TAKEN ABROAD. MAY NOT BE TAKEN BY STUDENTS RETURNING FROM STUDY ABROAD.

SPN 351 Cultural History of Spain I (3) MPT
Cultural history of Spain, through a historic-literary lens, from the Arab occupation of Al-Andalus through the Reconquest to Spain's so-called "Golden Age" of the Early Modern Period. Prerequisite: SPN 315.

SPN 352 Cultural History of Spain II (3) MPT
Cultural history of Spain from the 18th-century Spain to the present, with an emphasis on the 20th century Spain. Prerequisite: SPN 351.

SPN 361 Spanish American Cultural History I (3) MPT
An overview, reflected in literature and other media, of indigenous cultures, their discovery and conquest by the Spanish, and the enduring consequences of the new social, political and artistic order developed during the 300-year colonial period. Prerequisite: SPN 315.

SPN 362 Spanish American Cultural History II (3) MPT
Continued exploration of historical events surrounding the struggles for independence from Spain, the legacy of colonial institutions through the nineteenth century, and the twentieth-century search for democracy and social justice. Specific readings and films will vary. Prerequisite: SPN 361.

SPN 381 Language and Culture I (3) MPT
Social history of the Spanish language, with emphasis on the sociocultural and political factors that have interacted with language variation and change from pre-Roman Spain to the modern period. Prerequisite: SPN 312.

SPN 382 Language and Culture II (3) MPT
Overview of several sociolinguistic issues as they relate to modern Spanish, such as regional and social variation, minority languages in the Spanish-speaking world, language and gender, language and the media, bilingualism, language choice, language maintenance and shift. Prerequisite: SPN 381.

SPN 409 Intermediate Spanish Composition (3)
Written composition in Spanish. Study grammatical structures, lexicon and rhetorical techniques as important resources for effective and appropriate written communication. Prerequisite: SPN 316. TO BE TAKEN ABROAD WHEN POSSIBLE.

Note: The following courses require SPN 352 or 362 except as otherwise noted. When appropriate, alternative prerequisites are designated.

SPN 420 Selected Topics in Literature and Culture: Spain (3) MPT
In-depth study of literary texts and/or films on a specific cultural theme. CAS-B-LIT.

SPN 430 Selected Topics in Literature and Culture: Spanish America (3)
In-depth study of literary texts and/or films on a specific cultural theme. CAS-B-LIT.

SPN 440 Selected Topics in Spanish Language and Culture (3)
Explores linguistic issues in the Spanish-speaking world today, focusing on how they reflect economic, social and cultural tensions. Prerequisite: SPN 312 or permission of instructor.

SPN 450/550 Topics in Hispanic Literature and Language (1-4; maximum 9)
Intensive study of a special problem or topic, a specific period, author, genre, or movement in Hispanic literature; or special topics in Hispanic language or linguistics.

SPN 451/551 Spanish Narrative (3)
Study of Spanish narrative from selected literary periods. Specific periods and texts may vary according to instructor. Prerequisites: SPN 351 and 352 OR SPN 361 and 362. CAS-B-LIT.

SPN 452/552 Studies in Spanish Poetry (3)
Focus on one or more areas of Spanish poetry and poetics. May offer comparative approaches. Specific periods and texts may vary

according to instructor. Prerequisites: SPN 351 and 352 OR 361 and 362 . CAS-B-LIT.

SPN 453/553 Spanish Theater (3)
Study of selected theatrical movements in Spain. May offer comparative approaches. Specific periods and texts may vary according to instructor. Prerequisites: SPN 351 and 352 or SPN 361 and 362. CAS-B-LIT.

SPN 454/554 Don Quixote (3)
Study of Miguel de Cervantes's masterpiece and first modern novel in the Western world. Current critical approaches studied as well. Prerequisites: SPN 351 and 352 OR SPN 361 and 362. CAS-B-LIT.

SPN 461/561 Studies in Spanish American Narrative: Novel or Short Story (3)
Study of selected novels or short stories from the literature of Spanish America. Specific readings may vary according to instructor. Prerequisites: SPN 351 and SPN 352 or SPN 361 and 362. CAS-B-LIT.

SPN 462/562 Studies in Modern Spanish American Drama (3)
A panorama of the most representative movements and tendencies in modern Spanish American drama; covers works by playwrights from Mexico, Argentina, Puerto Rico, Chile and Cuba. Introduction to innovative critical analysis of dramatic texts. Prerequisites: SPN 351 and 352; or SPN 361 and 362. CAS-B-LIT.

SPN 463/563 Studies in Spanish American Poetry (3)
A study of movements and tendencies in Spanish American poetry which may focus on one or more periods of its development. Prerequisites: SPN 351 and 352 OR 361 and 362. CAS-B-LIT.

SPN 464/564 The Spanish American Essay (3)
Study of a type of essay, such as the chronicles of the discovery of America or the testimonio (first-hand witness accounts), for in-depth analysis of both the genre's structure and argument. Prerequisite(s): SPN 351 and 352 OR SPN 361 and 362. CAS-B-LIT.

SPN 480 Independent Reading for Departmental Honors (1-6; maximum 6)
Departmental honors may be taken for a minimum of four semester hours and a maximum total of six semester hours in one or more semesters of the student's senior year.

SPN 481/581 Spanish Phonology and Syntax (3)
Overview of the major theoretical approaches to Spanish phonology and syntax. Phonology includes the study of significant sound contrasts in Spanish, and their distribution and representation, as well as supra segmental elements like syllable structure and stress assignment; syntax analyzes the theoretical basis of Spanish sentence structure. Prerequisite(s): SPN 312 and one of the following: SPN 381 or SPN 382.

SPN 482/582 Spanish Dialectology (3)
Study of Spanish dialects based on historical and geographic criteria, as well as an introduction to a number of sociolinguistic concepts that will be the study of Spanish social dialectology. Prerequisite(s): SPN 312 and one of the following: SPN 381 or SPN 382.

SPN 483/583 History of the Spanish Language (3)
History of Spanish language from Latin to the present. Changes in phonology, morphology, syntax, and lexicon. Major characteristics of Spanish dialects and closely related languages. Prerequisite(s): SPN 312 and one of the following: SPN 381 or SPN 382.

SPN 484/584 Second Language Acquisition: Spanish (3)
A theoretical study of factors influencing first and second language acquisition/learning with a concentration on Spanish. Prerequisite(s): SPN 312 and one of the following: SPN 381 or SPN 382.

SPN 490 Issues in Hispanic Literature, Linguistics, or Culture (3) MPC
Intensive study, including reading and independent research in the Spanish language, on a topic in Spanish or Spanish American literature, culture or linguistics. Specific course content varies. Prerequisites: SPN 351 and SPN 352; or SPN 361 and SPN 362; and 3 400-level literature courses. May not be taken abroad; must be taken on campus.

SPN 600 Seminar in Spanish Language or Literature (3; maximum 15 toward any degree)
Intensive study of selected authors of a selected period or a selected linguistic problem. Research and reports.

SPN 617/618 Intensive Reading in Spanish for Graduate Students (3, 3)
Prepares candidates for advanced degrees in other departments toward a reading knowledge of Spanish of textual materials within their respective fields. Offered alternate years.

SPN 670 Practicum in Teaching College Spanish (1)
Introduction to second language learning/teaching theory, methodology, and practice. Supervised teaching, preparation of instructional and testing materials, and practice in evaluation. Readings and bibliographic work in second language learning/teaching theory, practice, and research. Required of all graduate teaching assistants. Prerequisite: graduate standing.

SPN 680 Independent Study (1-6)
Independent study in Spanish literature and language.

SPN 689 Teaching Assistant Orientation Seminar (1)
Introduces new teaching assistants to strategies for teaching listening, speaking, reading, and writing skills as well as culture in a cross-language setting. Summer only.

SPEECH PATHOLOGY AND AUDIOLOGY COURSES (SPA-Arts and Science)

SPA 115 The American English Sound System (2)
Introduction to American English pronunciation for students learning English as a second language. Topics to be discussed will include: the speech mechanism, the International Phonetic Alphabet (IPA), consonants, vowels, and intonation.

SPA 127 Introduction to Communication Disorders (3) MPF, MPT
Overview of disorders of communication, special problems of speech, language and hearing impairments, and treatment. IIC.

SPA 177 Independent Study (1-5; maximum 10 per year)
Prerequisite(s): Approved by instructor and department chair.

SPA 211 Deaf Culture and Community (3) MPF
This course is intended to provide a comprehensive orientation to the deaf and hard-of-hearing population of the United States. Some consideration will also be given to sign systems in Europe and Africa. The students will be introduced to the sociolinguistic aspects of educational, political, and environmental impacts on deaf culture, identity, and language. Students will also learn the basic vocabulary and grammar of American Sign Language. IIC, Cul.

SPA 212 Deaf Culture: Global, National, Local Issues (3) MPF
Provides a comprehensive orientation to the Deaf and hard-of-hearing communities in continents around the globe. Students will learn the basic vocabulary and grammar of American Sign Language. Consideration will also be given to sign systems in Europe and the U.S. The students will be introduced to the sociolinguistic aspects of educational, political and environmental impacts on Deaf culture, identity, and language. Cross-listed with DST 212. IIC, Cul.

SPA 216 Introduction to Audiology (3)
Topics include: physics of sound principles and techniques of audiometric testing, types of hearing loss, and treatments for hearing impairment. Prerequisite: Sophomore standing (pre-major status).

SPA 222 Anatomy and Physiology of the Speech and Hearing Mechanism (4)
Introduction to anatomical, physiological, and neurological characteristics of normal speech and hearing mechanisms; developmental embryology; and fundamental acoustics of speech. Prerequisite(s): Sophomore standing (pre-major status) and SPA 127 (or concurrent enrollment).

SPA 223 Language Development (3) MPF
Survey of the integration of scientific and theoretical knowledge about the normal acquisition of language from birth to adulthood. Introduction to the linguistic aspects of cultural, political, and environmental impacts on acquisition of language, relationship between English and coexistent languages, gender-related differences in conversational interactions, and the complex interaction of culture and language development. IIC. Prerequisite: Sophomore standing.

SPA 225 Foundations of Neurology (3)
Nature and treatment of speech and language disorders with involved structural and neurological components. Prerequisite(s): Sophomore standing (pre-major standing); SPA 127 and SPA 222 (or concurrent enrollment).

SPA 233 Perspectives of the Human Face (3) MPT
Course describes basic concepts of growth and development of the human face and the resulting craniofacial anomalies (CFAs) that occur when this process is interrupted. The major causes of CFAs are explored, and the major genetic syndromes with CFAs are reviewed. Students learn how to identify CFAs and how to distinguish between normal racial and ethnic variation in facial appearance and anomalous facial appearance. Students also review the causes of CFAs and their impacts on affected individuals, and learn how to select strategies for helping persons with abnormal facial features to live normal lives.

SPA 248 American Sign Language I (3)
This course will introduce conversationally relevant signs, fingerspelling, grammatical sign principles and background information related to deaf culture. Prerequisite: Sophomore standing.

SPA 277 Independent Study (1-5; 10 maximum per year)
Prerequisite(s): Approved by instructor and department chair. Sophomore standing.

SPA 293 Sophomore Seminar in Speech Pathology and Audiology (1)
Professional seminar for majors in speech pathology and audiology. Students learn observational techniques and observe at the Speech and Hearing Clinic. Prerequisite(s): Sophomore standing (pre-major status).

SPA 326 Therapy for the Hearing Impaired (3)
Discussion of common difficulties associated with hearing loss, strategies used in hearing loss management including auditory training, principles of speech reading, and hearing aid selection and use. Prerequisites: Junior standing; major status; SPA 216.

SPA 334 Clinical Phonetics and Articulation Disorders (3)
Sound structure of the English language, beginning and advanced transcription using international phonetic alphabet with clinical applications. Prerequisite(s): Junior standing (major standing) and SPA 127.

SPA 345 Image/Myth of Deafness in the Media (3)
Describes and analyzes how Hollywood has depicted deaf characters over a period of more than 80 years and to compare this image with the actual American Deaf community.

SPA 377 Independent Study (1-5; maximum 10 per year)
Prerequisite(s): Approved by instructor and department chair; junior standing.

SPA 393 Junior Clinical Experience (1)
Professional seminar for majors in speech pathology and audiology. Focuses on counseling in speech pathology and audiology. Multicultural experiences in a variety of contexts. Prerequisite(s): Junior standing (major status) and SPA 293.

SPA 402/502 Counseling Strategies for Speech Pathologists and Audiologists (3)
Provides an understanding of counseling theory and practice as it relates to individuals with communication disorders. Consideration given to the psychological and psychosocial implications of communication disorders to individuals and their families. Prerequisite(s): Senior standing (major status); SPA 127 or approval of instructor.

SPA 413 Senior Seminar in Communication Disorders (3) MPC
Intensive study of current issues in communication disorders. Each topic builds on knowledge acquired in past courses. Emphasis on analysis of issues, ranging from ethical concerns to multicultural imperatives. Students work collaboratively in developing their topics culminating in oral presentations and written papers. Projects are showcased at a colloquium featuring a national authority. Written proceedings summarize student projects. Prerequisite(s): Senior standing with Speech Pathology and Audiology major, Thematic Sequence in Speech Pathology and Audiology, or approval of instructor.

SPA 416/516 Research Design (3)
Basic principles of research in communication disorders incorporating research design and critical evaluation of clinical research in Speech Pathology and Audiology. Prerequisite(s): Senior standing (major status).

SPA 422/522 Clinical Aspects of Audiology (3)
Special problems in clinical examination and rehabilitation of individuals with hearing loss. Prerequisite(s): Senior standing (major status) and SPA 216.

SPA 426/526 Language Disorders (3)
Etiology, diagnosis, and in-depth analysis of communication disorders in children. Prerequisite(s): Senior standing (major status) and SPA 223; SPA 334.

SPA 427/527 Alternative Communication Systems for the Severely Handicapped (2) MPT
Overview of manual, graphic, and electronic systems used by individuals with severe communication disabilities. Prerequisite(s): Senior standing; SPA 127.

SPA 435/535 Speech and Hearing Science (3)
History, current status, and future trends of the scientific aspects of speech production and reception. Prerequisite(s): Senior standing (major standing); SPA 334.

SPA 477 Independent Study (1-5; maximum 10 per year)
Prerequisite(s): Approved by instructor and department chair; senior standing.

SPA 493 Senior Seminar in Speech Pathology and Audiology (1)
Professional seminar for majors in speech pathology and audiology. Information about topics and skills needed to work in the public school setting. Observation of several speech pathology settings required. Prerequisite(s): Senior standing (major status); SPA 293; SPA 393.

SPA 494 Disability in Global and Local Contexts (3) MPC
Examines contemporary disability issues and policies and the lived experiences of persons with disabilities in international and local contexts, with emphasis on understanding disability within particular communities- both locally and in other countries- and on learning multiple research methods. Cross-listed with ENG/DST/COM/SOC and EDP 489. Prerequisite: Approval of instructor.

SPA 605 Speech, Language, Pathology & Audiology in School Setting (3 to 15)
Externship for graduate students in Speech/language pathology and audiology. Full-time experience with supervision of faculty and school speech/language pathologists or audiologists in selected school districts. Prerequisites: Graduate Standing and approval of instructor.

SPA 620 Advanced Clinical Practice (1-8; maximum 16)
Stuttering (adults), cleft palate, aphasia, cerebral palsy, and voice, hearing, or language disorders. Principles and techniques of examination, appraisal, and treatment supplemented by supervised experiences in Miami's Speech and Hearing Clinic and satellite clinics in the region. Prerequisites: Graduate standing and approval of instructor.

SPA 621 Neurogenic Language Disorders (3)
Advanced study in causes, management, and related research of adult aphasia. Prerequisites: Graduate standing and approval of instructor.

SPA 622 Organic Speech Disorders: Voice Pathology (3)
Advanced study in causes, management, and research of voice disorders. Prerequisites: Graduate standing and approval of instructor.

SPA 623 Organic Speech Disorders: Craniofacial Anomalies (2)
Advanced study of cleft lip and palate, their bases, and their physical and psychological management. Prerequisites: Graduate standing and approval of instructor.

SPA 625 Best Practices for the School-Based Speech-Language Pathologist (2)
This course provides graduate students with a thorough understanding of the roles and responsibilities of the school-based speech-language pathologist.

SPA 626 Organization and Administration of Clinical Programs for Communication Disorders (1)
Organization and administration of clinical programs appropriate to specific employment settings. Prerequisites: Graduate standing in speech pathology and approval of instructor.

SPA 627 Pediatric Language and Autism Spectrum Disorders (3)
Current trends of research and remediation procedures for language disorders. Individual diversity expressed in language learning through an exploration of the differing effects of various handicaps

and cultural diversity. Prerequisites: Graduate standing and approval of instructor.

SPA 629 Organic Speech Disorders: Motor Speech Disorders (2)
Advanced study in causes, management, and related research of motor speech disorders. Prerequisites: Graduate standing and approval of instructor.

SPA 631 School Age Language and Literacy (3)
Assessment and treatment of communication delays and disorders in infants, toddlers, and preschool children. Prerequisites: Graduate standing and approval of instructor.

SPA 633 Phonological and Articulation Disorders (3)
Reviews assessment and intervention strategies relative to the effective clinical management of persons with disorders of phonology affecting communication and literacy. Its emphasis will be in the area of treatment with over two-thirds of the course content devoted to the clinical management process. Prerequisites: Graduate standing and approval of instructor.

SPA 641 Advanced Studies in Fluency Therapy (1)
Advanced study in management of fluency disorders. Prerequisites: Graduate standing and approval of instructor.

SPA 651 Dysphagia, Trachs and Vents (3)
Studies in the causes, evaluation, treatment, and selected research in feeding and swallowing disorders. Prerequisites: Graduate standing and approval of instructor.

SPA 660 Independent Project (1-4; maximum 8)
Prerequisites: Graduate standing and approval of instructor.

SPA 662 Research in Speech Pathology and Audiology (3)
Advanced studies of research and statistical data collection in the area of communication disorders. Prerequisites: Graduate standing and approval of instructor.

SPA 671 Neurogenic Cognitive Disorders (3)
Advanced study in neuropathology, diagnosis, treatment, and research of adult neurogenic cognitive disorders. Prerequisites: Graduate standing and approval of instructor; SPA 672.

SPA 672 Neuroanatomy of the Speech and Hearing Mechanisms (3)
Neuroanatomy of normal speech and hearing mechanisms and current research implications for speech and hearing therapy. Prerequisites: Graduate standing and approval of instructor.

SPA 673 Genetics & Syndromes (1)
Introduces students to basic genetic concepts, inheritance patterns, characteristics and etiology of major genetic syndromes. Provides students with brief identification, assessment and treatment options for 30 commonly encountered syndromes. Prerequisites: Graduate standing and approval of instructor.

SPA 691 Voice Disorders (3)
Provide students with an in-depth understanding of voice disorders including normal anatomy and physiology, pathophysiology, pathology, etiological correlates, and evaluation and management techniques for a wide range of voice disorders including alaryngeal voice. Prerequisites: SPA 672 or equivalent. Must be a second year graduate student in speech pathology or a working professional.

SPA 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)
Prerequisites: Graduate standing and approval of instructor.

SPA 711 Research In Speech Pathology (1-12)
Students pursuing the non-thesis option may register for these hours while working on a research project; however, these hours are typically taken during the second year of the program. Prerequisites: Graduate standing and approval of instructor.

SPA 720 Seminar in Speech Disorders (2; maximum 8)
Current professional problems of a selected topic explored through study of recent research, clinical literature, and individual student projects. Prerequisites: Six hours in 600-level speech pathology courses, graduate standing and approval of instructor.

SPA 750 Professional Field Experience (1-10; maximum 20)
Intern experiences for the advanced graduate student. Prerequisites: Graduate standing and approval of instructor.

STATISTICS COURSES (STA-Arts and Science; Department of Statistics)

Note: *Service courses* do not count toward majors in the Department of Statistics or the Department of Mathematics. They may or may not count toward majors in other departments. Look carefully at your major requirements elsewhere in this Bulletin.

STA 261 Statistics (4) MPF, MPT
Service course. Descriptive statistics, basic probability, random variables, binomial and normal probability distributions, tests of hypotheses, regression and correlation, analysis of variance. Emphasis on applications. Prerequisite: MTH 102 or 104 or 121 or three years of college preparatory mathematics or permission of department chair. V. CAS-E.

Note: Credit for graduation will not be given for more than one of DSC 205, STA 261, STA 301, or STA 368.

STA 301 Applied Statistics (3) MPT
A first course in applied statistics including an introduction to probability, the development of estimation and hypothesis testing, and a focus on statistical methods and applications. Includes introduction to probability of events, random variable, binomial and normal distributions, mathematical expectation, sampling distributions, estimation, and hypothesis testing. Statistical methods include one and two sample procedures for means and proportions, chi-square tests, analysis of variance, and linear regression. Prerequisite: Calculus I or II.

STA 333 Nonparametric Statistics (3) MPT
Applied study of statistical techniques useful in estimating parameters of a population whose underlying distribution is unknown. Chi-square, runs, and association tests covered. Cross-listed with DSC 333. Prerequisite: DSC 205 or STA 301 or STA 363 or STA 368.

STA 363 Regression and Design of Experiments (3) MPT
Service course. Applications of statistics using regression and design of experiments techniques. Regression topics include simple linear regression, correlation, multiple regression and selection of the best model. Design topics include the completely randomized design, multiple comparisons, blocking and factorials. Prerequisite: STA 261 or STA 301 or STA 368 or DSC 205 or permission of instructor.

STA 365 Statistical Quality Control (3) MPT
Statistical procedures used in quality control. Control charts for measurement and attribute data. Process capability studies. Introduction to design of experiments for quality improvement including factorial and fractional factorials along with industrial applications. Cross-listed with DSC 365. Prerequisite: DSC 205 or STA 301 or 363 or 368.

STA 368 Introduction to Statistics (4) MPT
Service course. Beginning course in statistics with emphasis on methods and applications. Probability, random variables, binomial and normal probability distributions, sampling distributions, statistical inference procedures, linear regression, analysis of variance and other data analysis methods. Prerequisite: Calculus I or II.

Note: Students with majors other than engineering should take STA 301 rather than STA 368. Engineering majors should check the degree requirements for their major to determine whether to take STA 301 or 368.

STA 401/501 Probability (3)
Development of probability theory with emphasis on how probability relates to statistical inference. Topics include review of probability basics, counting rules, Bayes Theorem, distribution function, expectation and variance of random variables and functions of random variables, moment generating function, moments, probability models for special random variables, joint distributions, maximum likelihood estimation, unbiasedness, distributions of functions of random variables, chi-square distribution, students t distribution, F distribution, and sampling distributions of the sample mean and variance. Prerequisite: STA 261, 301, or 368 or equivalent. Pre- or Co-requisite: Calculus II.

Note: STA 501 may not be counted toward graduate degree programs in mathematics or statistics.

STA 402/502 Statistical Programming (3)
Introduction to the use of computers to process and analyze data. Techniques and strategies for managing, manipulating, and analyzing data are discussed. Emphasis is on the use of the SAS system. Statistical computing topics, such as random number generation, randomization tests, and Monte Carlo simulation, will

be used to illustrate these programming ideas. Prerequisite: STA 401/501 or STA 671 or DSC 305 or permission of instructor.

STA 432 Survey Sampling in Business (3) MPT
Survey sampling with applications to problems of business research. Simple random sampling, systematic sampling, stratified random sampling, ratio estimation, and cluster sampling. Prerequisite: DSC 305 or STA 363 or STA 401 or permission of instructor. Cross-listed with DSC 432/532

STA 462/562 Inferential Statistics (3)
A study of estimation and hypothesis testing including a development of related probability ideas. Topics include derivation of the distribution of functions of random variables, point estimation methods, properties of point estimators, derivation of confidence interval formulas, and derivation of test statistics and critical regions for testing hypotheses. Prerequisite: STA 401/501 and Calculus III.

STA 463/563 Regression Analysis (4)
Linear regression model, theory of least squares, statistical inference procedures, general linear hypothesis, partial F tests, residual analysis, regression diagnostics, comparison of several regressions, model adequacy, and use of statistical computer packages. Prerequisite: STA 401/501 and MTH 222 or 231.

STA 466/566 Experimental Design Methods (4)
Experimental design concepts; completely randomized, randomized block, and Latin square designs; planned and multiple comparisons; analysis of variance and covariance; factorial and split-plot experiments; nested designs and variance components; fixed, random, and mixed effects models. Emphasis on applications and computer usage. Prerequisite: STA 463/563 or DSC 305.

STA 467/567 Multivariate Analysis (3)
Multivariate normal distribution, partial and multiple correlations, Hotelling's T-squared, estimation and tests of hypotheses for multivariate populations. Prerequisite: STA 401/501 and MTH 222.

STA 471/571 Probability and Statistics Problems Seminar (1)
Solution and discussion of challenging probability problems such as those found on the first actuarial exam. Prerequisite: STA 401/501.

STA 473/573 Applied Multiple Regression (1)
Service course. Linear regression model and assumptions, statistical inferences associated with regression, multiple correlation, curvilinear regression, selection of 'best' regression function, regression approach to single-factor analysis of variance. Extensive use of computer library programs. Offered in five-week sprint mode. Prerequisite: previous course in statistics.

STA 475 Data Analysis Practicum (3) MPC
The use of statistical data analysis to solve a variety of projects. Emphasis on integrating a broad spectrum of statistical methodology, presentation of results both oral and written, use of statistical computing packages to analyze and display data, and an introduction to the statistical literature. A term project involving student teams combines elements of all of the above. Prerequisite: STA 463/563 or 363, or DSC 305.

STA 476/576 Experimental Designs (1)
Service course. Planned and unplanned comparisons; completely randomized, randomized block, Latin square designs; factorial, nested experiments; analysis of covariance. Offered in five-week sprint mode. Prerequisite: STA 473/573.

STA 480 Departmental Honors (1-6; maximum 6)
Departmental honors may be taken for a minimum of four semester hours and a maximum total of six semester hours in one or more semesters of student's senior year.

STA 483/583 Analysis of Forecasting Systems (3)
Introduction to quantitative prediction techniques using historical time series. Involves extensive use of interactive computing facilities in developing forecasting models and considers problems in design and updating of computerized forecasting systems. Cross-listed with CSE 483/583. Prerequisite: STA 401/501 or permission of instructor. Credit not awarded for both STA 483/583 and DSC 444.

STA 484/584 Analysis of Categorical Data (3)
Introduction to statistical procedures used in analyzing categorical data. Chi-square tests, log-linear models, measures of association. Prerequisite: STA 401/501.

STA 600 Topics in Advanced Statistics (1-4; maximum 10)
Prerequisite: permission of department chair.

STA 609 Probability and Statistics for Secondary School Teachers (3)
For high school teachers. Selection of topics, with emphasis on developing good intuition as well as good understanding of the logic of the subject. Emphasis upon applications. For students in mathematics and statistics programs, credit may only be applied to Master of Arts in Teaching. Prerequisite: Licensure in secondary school mathematics or permission of instructor. Summer only.

STA 650 Topics in Statistics (1-4; maximum 8)
Topics selected from an area of statistics. Prerequisite: permission of instructor. Offered infrequently.

STA 660 Practicum in Data Analysis (3)
Supervised practice in consulting and statistical data analysis including use of computer programs. Maximum of six hours may be applied toward a degree in mathematics or statistics. Offered credit/no-credit basis only. Prerequisite: STA 666.

STA 663 An Introduction to Applied Probability (3)
Random walks and ruin problems, branching processes, Markov chains, Poisson processes, birth and death processes, plus topics chosen from renewal theory, queuing theory, and Markov processes. Prerequisite: STA 401/501.

STA 664/665 Theory of Statistics (3,3)
Topics from distribution theory, theory of estimation, theory of tests of hypothesis. Prerequisite: None.

STA 666 General Linear Models (3)
The theory of linear models used in regression and experimental design. Topics will include: multivariate normal distributions, quadratic form theory, general linear model theory and inference for both full and less than full rank models, estimability and estimable functions. Prerequisite: STA 463/563.

STA 667 An Introduction to Multivariate Statistical Analysis (3)
Study of multivariate normal distribution, estimation and tests of hypotheses for multivariate populations, principal components, factor analysis, discriminant analysis. Prerequisite: STA 462/562.

STA 668 Sampling Theory and Techniques (3)
Introduction to sampling theory and applications, with topics including simple random samples, sampling for proportions, systematic samples, stratified samples, cluster samples, regression and ratio estimation, and sampling errors. Prerequisite: STA 462/562 or permission of instructor.

STA 669 Nonparametric Statistics (3)
Introduction to theory and methods of nonparametric statistics including sign test, runs test, Mann Whitney test, asymptotic relative efficiency, etc. Prerequisite: STA 462/562.

STA 671 Environmental Statistics (3)
Service course. Descriptive statistics, probability models, sampling distributions, estimation, hypothesis testing, regression and correlation analysis, elements of experimental design, and analysis of variance. Prerequisite: graduate standing or permission of instructor.

STA 680 Internship in Statistics (1-6; maximum 12)
Intern experience for advanced graduate students in statistics while working for an appropriate industry or government agency. Students must have faculty sponsor for internship. Offered on credit/no-credit basis only. Prerequisite: STA 660 and approval of department chair.

STA 684 Categorical Data Analysis (3)
Introduction to analysis of contingency tables. Topics include: Log-linear and related modeling procedures; measures of association, sensitivity, and agreement; goodness of fit; partitioning Chi-square; collapsing multidimensional tables; sampling models for discrete data. Prerequisite: STA 462/562 or permission of instructor.

STA 685 Biostatistics (3)
Introduction to statistical techniques used in biostatistics focusing on analysis of survival and lifetime data. Topics include nonparametric and parametric methods for estimation and comparison of survival distributions. Additional material chosen from clinical trials design and analysis, dose-response models, and risk estimation models. Prerequisite: STA 462/562 or permission of instructor.

STA 686 Quality Control and Industrial Statistics (3)
Introduction to theory and application of statistical procedures used in industry. Topics include quality control, control charts, acceptance sampling, process optimization techniques, evolutionary operations, response surface methodology, canonical and ridge

analysis, method of steepest ascent, and first and second order models. Prerequisite: STA 463/563 or permission of instructor.

STA 698 Seminar in the Teaching of Freshman Mathematics and Statistics (1)
Required of all newly appointed graduate assistants. Deals with practical problems encountered in teaching algebra, trigonometry, statistics, and calculus. Credit does not count toward a graduate degree in mathematics or statistics. Offered on credit/no-credit basis only. Prerequisite: graduate standing and teaching responsibilities in statistics. Summer only.

TEACHER EDUCATION COURSES (EDT- Education, Health and Society)

EDT 110 Learning Strategies for College Success (2)
Designed to teach study skills (reading, notetaking from texts and lectures, organizing and composing orally and in writing) necessary for student to function effectively at Miami University.

EDT 181/182 Physical Science (4, 4) MPF
Introduction to fundamental concepts and principles of physics, chemistry (181) astronomy, meteorology, and earth science (182). Basic and integrated processes of science as well as science concepts introduced and related to societal problems to promote understanding and interaction within a technological society. Encouraged to think critically, understand contexts of knowledge, and participate in scientific enterprise. Required for early childhood education majors. 3 Lec.1 Lab. IVB, LAB.

EDT 190 Introduction to the Teaching Profession (3)
Introductory course combining classroom activities, technology experiences and school visits to assist students in deciding whether or not to pursue a teacher licensure program and to begin the professional preparation process..

EDT 246 Foundations of Reading, Language, and Literacy (3)
Explores the foundations of literacy as content background for effective reading and English language arts instruction, birth to age 21. Topics include history of reading and writing instruction, literacy and technology, cultural and linguistic aspects of literacy, developmental issue and various perspectives and models of literacy learning. Prerequisite: EDP 201 or FSW 281.
Note: Early childhood education majors take 246E as part of the early field block and middle childhood education majors take EDT 246M in the early field block. Integrated English/language arts majors take EDT 246A prior to EDT 346A and their methods block.

EDT 251 Effective Use of Libraries: A Basic Course (2)
Emphasizes how to effectively use libraries and their resources. Stresses location of information through use of card catalog, periodical indexes, and other basic reference sources. Familiarizes students with various library services. Focuses on development of self-confidence in getting information through lectures and in-class practical problems geared to students' academic interests and needs. Coordinated with staff and information resources of University Libraries. Offered on Hamilton and Middletown campuses.

EDT 252M Early Field Experience: Middle Childhood (3)
Professional seminar for students admitted to a cohort in teacher education in the middle childhood licensure. Explores process of becoming a teacher and includes clinical and field experiences. Prerequisite: admission to and retention in Middle Childhood cohort. Part of early field block.

EDT 265 Mathematics: History and Technology (3)
For middle school education majors: an investigation of mathematical concepts which include mathematical modeling, proportional reasoning, and historical development of mathematical concepts contributed by underrepresented groups and diverse cultures. Various technologies, including computers, calculators, calculator-based laboratories, and related probes are used as tools for investigations. Prerequisite(s): MTH 151 or MTH 153.

EDT 272E Introduction to Early Childhood Education (3)
Beginning overview of historical, political, societal, and educational interrelationships in the field of early childhood education. Focuses on contemporary programs and diversity, teachers' varied roles and responsibilities, professional standards, and personal teaching philosophies. Prerequisite(s): Admission to and retention in the early childhood education cohort on any campus or admission to the pre-K program on a regional campus.

EDT 273 Prekindergarten Integrated Curriculum I (3)
Course for students who wish to become child care professionals, working with young children ages 0-5, not yet in kindergarten, in a variety of settings, including public, corporate and private child care centers and preschools. Topics include integration of learning experiences through preparation of safe and healthy environments, observation and assessment tools, behavior management, and adult interactions. Special needs of children are also considered. A 24-hour practicum in a diverse setting is required. Offered on Hamilton and Middletown campuses.

EDT 274 Prekindergarten Integrated Curriculum II (3)
Course for students who wish to become child care professionals, working with young children ages 0-5, not yet in kindergarten, in a variety of settings, including public, corporate and private child care centers and preschools. Topics include development of appropriate curriculum through an integrated thematic approach and lesson planning in the arts, literacy, and content areas, including health, physical education, math, social studies and science. Parent/community involvement and special needs of children are also considered. Twenty-two hours of fieldwork in diverse settings is required. Offered on Hamilton and Middletown campuses.

EDT 310 Methods in Tutoring Adults (1)
Introduction to theories and methods of effective tutoring at college level. Prerequisite: recommendation of faculty member and department chair in tutor's content area or permission of instructor.

EDT 311 Junior Field Experience and Praxis (3)
Curriculum, materials, and methods of teaching in grades 4 thru 9; lesson planning, questioning strategies, cooperative learning, concept development, technology, evaluation, teaming, understanding learning styles and needs of the middle childhood student; the teaching environment; teaching professionalism. Contains a site (field) experience component. Prerequisite: Retention in middle childhood cohort at instructional procedures waypoint. Part of middle childhood content methods block.

Advanced Teacher Education Courses

EDT 315E Language Arts and Children's Literature (2)
Explores reading-writing connection in literacy development for children, ages 3 to 8. Includes developmental aspects of oral and written language, selecting and using quality literature with young children, and various methods of fostering progress in literacy growth through literature. Prerequisite: admission to cohort and instructional procedures waypoint. Admission to and retention in early childhood cohort and successful completion of early field block. Part of early childhood literacy block.

EDT 317E Teaching Science in Early Childhood (2)
Basic principles, methods, curriculum trends, and materials for teaching science to children, ages 3- 8. Laboratory and field experiences with children are integral to meeting course objectives. Prerequisite: Retention in cohort and successful completions of literacy block in early childhood education. Part of early childhood content integration block.

EDT 318E Mathematics in Early Childhood (2)
Study of theory and principles regarding techniques and materials for facilitating the mathematics learning of children in early childhood; laboratory and fieldwork integral to meeting course objectives, which are aligned with the Ohio model objectives and state and national standards for teaching and learning mathematics. Prerequisite: retention in an early childhood cohort at the instructional procedures waypoint. Retention in Cohort and successful completion of literacy block in early childhood education. Part of early childhood content integration block.

EDT 346A Reading Instruction for Adolescents (3)
Basic course in instructional principles and methods for reading and studying techniques in specific subject area courses taken by adolescents. Emphasis on strategies to improve reading comprehension and vocabulary. Laboratory and field experiences are an integral part of the course. Prerequisite: EDT 246 and retention in adolescent integrated English/language arts cohort at the instructional procedure waypoint. Co-requisite: EDT 427.

EDT 346E Reading Instruction for Early Childhood (3)
Basic course in teaching reading, including appropriate methods, materials and formal and informal assessment measures; cultural and linguistic diversity; family literacy partnerships; literacy technology; and organization of a learning environment to support literacy development in children ages 3 to 8 or preschool to third grade. Emphasis on strategies to improve reading comprehension and vocabulary. Laboratory and field experiences are an integral

part of the course. Prerequisite: admission to and retention in early childhood cohort and successful completion of early field block. Part of early childhood literacy block.

EDT 346M Reading Instruction for Middle Grades (3)
Students expand and extend knowledge base from EDT 246M; explore, study, apply, and assimilate new learning about effective reading and literacy strategies appropriate to development and needs of early adolescent learners (grades 4-9). Focuses on knowledge and skills necessary to make and apply appropriate programmatic and instructional decisions including knowledge of the early adolescent learner, reading and writing processes, instructional strategies, and integrating materials and learning environments. Laboratory and field experiences are an integral part of the course. Prerequisite: retention in middle childhood cohort at instructional procedures waypoint. Part of middle childhood content methods block.

EDT 361 Social Sciences for Teachers I (4)
Social, economic, and political institutions and practices in and through which we live. Provides elementary education majors with a general understanding of social sciences with emphasis on their processes and products.

EDT 362 Social Sciences for Teachers II (4)
Political and economic institutions and processes as related to the American experience. Emphasizes historical and contemporary interrelationships of economic and political institutions in American society.

EDT 374 The Nature of Science (3)
Critical examination of contemporary theories of the nature of science, including the scientific method, the nature of experimentation, underdetermination, scientific explanation, theory confirmation, realism, and scientific change. Open to students admitted to a licensure program in the Department of Teacher Education and other Miami students with permission of instructor.

EDT 405/505 Advanced Science for the Elementary School Teacher (3)
Content course in physical science covering advanced study of selected areas of geology, physics, chemistry, and astronomy. Prerequisite: EDT 182 or equivalent. Summer only.

EDT 415/515 Inquiry in to Life Science (3)
Provides students with the opportunity to explore the world of life science through inquiry using a thematic approach. Major themes include the nature of science, ecology, human biology, evolution, and taxonomy. Prerequisites: successful completion of any entry-level life science course taught in botany, microbiology, or zoology,

EDT 417E Teaching Social Studies in the Early Childhood (2)
Curriculum, materials, and methods of teaching social studies for ages 3-8. Focuses on developmentally appropriate curriculum and instructional practice, including play, small-group projects, open-ended questioning, group discussions, problem solving, cooperative learning, and inquiry experiences, as they apply to social studies. Prerequisite: retention in cohort and successful completion of literacy block in early childhood education. Part of early childhood content integration block.

EDT 419 Supervised Teaching (8-15)
Planned and supervised learning experience in which students demonstrate knowledge, skills, abilities, and values appropriate to teaching in educational settings. Frequent conferences with university supervisors and cooperating teachers. Prerequisites: completion of all instructional procedures courses required in licensure program; required g.p.a. for licensure programs; at least 96 semester hours; and pass Praxis II.

EDT 420 Field Experience (1-4; maximum 8)
Structured field experiences in elementary or secondary school setting with direction and supervision of faculty from appropriate department. Prerequisite: departmental permission.

EDT 421A/521A Classroom Management (2)
Systematic study of research and theories of classroom management with application to the student teacher's specific classroom management problems. Prerequisite: admission to and retention in the language arts, math, science, social studies and foreign language cohorts. Part of the adolescent methods block.

EDT 421M/521M Classroom Management (2)
Systematic study of research and theories of classroom management with application to the student teacher's specific classroom management problems (grades 4-9). Prerequisite: Admission to and retention in middle childhood education cohort. Part of the middle childhood methods block.

EDT 422 Studies in Educational Issues (3) MPC
Each student or student team collaborates with instructor and peers to identify and conduct an investigation or complete a creative project that focuses on a specific problem or issue in education. Seminar course with primary emphasis on intensive reading, research, writing, and interaction in student-selected areas of study with opportunities for analysis and reflection. Includes discussions, team work, presentations, and writing projects. Culminating activity is an oral or written presentation or exhibition that demonstrates understanding or resolution of the issue or problem studied.

EDT 423/523 Literature and Other Media for Adolescents (3)
Discusses evaluation of non-print media, selection aids, censorship problems, and adolescent needs in half the semester and evaluation and criticism of literature in the other half.

EDT 424/524 Storytelling: Traditional and Contemporary (2)
Presents principles of storytelling and reading aloud to various age levels in schools and public libraries. Offers knowledge of selection sources, helps build repertoire of stories, and aids in development of storytelling techniques. Provides practical experience in storytelling with emphasis on use of non-print media for children.

EDT 425/525 Innovative Practices in Language Arts (3)
Helps teachers use principles of language and language learning to improve language arts instruction and draw upon all available resources, from research findings to audiovisual materials, to improve the language program. Offered infrequently.

EDT 427/527 Adolescent Language Arts I (3)
Curriculum, materials, and methods for teaching writing, grammar, usage, literature, speech, journalism, with emphasis on writing and journalism, including ethics and law surrounding school publications. Prerequisite: retention in your language arts cohort at the instructional procedure waypoint. Part of language arts methods block.

EDT 428/528 Adolescent Language Arts II (3)
Curriculum, materials, and methods for teaching writing, grammar, usage, literature, speech, journalism, and media with emphasis on literature and media. Prerequisite: retention in your language arts cohort at the instructional procedures waypoint and successful completion of all of the courses in the language arts methods block.

EDT 429A/529A Adolescent Mathematics I (3)
Use of curricula, materials, and teaching/assessment strategies for teaching mathematics in the middle childhood/junior high school years (grades 4-9). Middle childhood majors take EDT 429M/529M and adolescent young adulthood mathematics majors take EDT 429A/529A. See middle childhood and adolescent education program descriptions. Prerequisite: retention in your integrated mathematics education cohort at the instructional procedures waypoint. Part of mathematics methods block.

EDT 429M/529M Middle Childhood Mathematics I (3)
Use of curricula, materials, and teaching/assessment strategies for teaching mathematics in the middle childhood/junior high school years (grades 4-9). Middle childhood majors take EDT 429M/529M and adolescent young adulthood mathematics majors take EDT 429A/529A. See middle childhood and adolescent education program descriptions. Prerequisite: Retention in middle childhood cohort at instructional procedures waypoint. Part of middle childhood content methods block for students pursuing the math concentration.

EDT 430/530 Adolescent Mathematics II (3)
Use of curricula, materials, and teaching/assessment strategies for teaching mathematics to adolescents in the senior high school years (grades 9-12). Prerequisites: retention in your math cohort at the instructional procedures and successful completion of all of the courses in the math methods block.

EDT 431/531 Adolescent Science Methods I (3)
Fundamental principles, techniques, and materials of science teaching in grades 7-12. Prerequisite: Retention in your science education cohort at the instructional procedures waypoint.

EDT 432/532 Adolescent Science Methods II (3)
Fundamental principles, techniques, and materials of science teaching in grades 7-12. Prerequisite: Retention in your science cohort at the instructional procedures waypoint, including EDT 431. Part of science methods block.

EDT 433/533 Adolescent Social Studies Methods I (3)
Introduction to social studies as a professional field, curriculum, materials, and methods of teaching grades 7-12; lesson planning, simulations, learning styles, current trends in social studies

education. Prerequisite: Retention in your social studies education cohort at the instructional procedures waypoint.

EDT 434/534 Adolescent Social Studies Methods II (3)
Materials, curriculum, methods, and standards for teaching social studies in grades 7-12; questioning strategies, cooperative learning, technology, unit development, evaluation, current trends in the social studies. Prerequisite(s): Retention in your social studies education cohort at the instructional procedures waypoint, including EDT 433. Part of social studies methods block.

EDT 435/535 Advanced Laboratory Practicum in Elementary School Science (3)
Laboratory oriented course to give pre-service and in-service elementary school teachers opportunity to prepare and test a variety of experiments and demonstrations for use in teaching science in elementary school. Prerequisite: EDT 181, 182, or permission of instructor. Offered infrequently.

EDT 436/536 Middle Childhood Language Arts (3)
Methods, strategies, techniques, and attitudes for integrating the teaching of writing, grammar, usage, literature, and speech in grades 4-8. Prerequisite: Retention in middle childhood cohort at instructional procedures waypoint. Part of middle childhood content methods block for students pursuing the language arts concentration.

EDT 439/539 Middle Childhood Social Studies (3)
Curricula, materials, and methods of teaching social studies in grades 4-9; lesson planning, simulations, learning style, current trends in teaching social studies. Prerequisite: Retention in middle childhood cohort at instructional procedures waypoint. Part of middle childhood content methods block for students pursing the social studies concentration.

EDT 441 Middle Childhood Science (3)
Basic principles, methods, curriculum trends, and materials for teaching science to children, grades 4-9. Laboratory and field experiences with children are integral to meeting course objectives. Prerequisite: Retention in middle childhood cohort at instructional procedures waypoint. Part of middle childhood content methods block for students pursuing the science concentration.

EDT 442E/542E Phonics and Reading Improvement for Early Childhood (3)
Presents historical and research perspectives, word analysis concepts/ terminology, and instructional methods of phonics and word recognition for early childhood, ages 3-8. Examines diagnostic and instructional procedures related to special needs of very low to high achieving readers. Prerequisite: Admission to and retention in early childhood cohort and successful completion of early field block. Part of early childhood literacy block.

EDT 442M/542M Phonics and Reading Improvement for Middle Childhood (3)
Presents historical and research perspectives, word analysis concepts/ terminology, and instructional methods of phonics and word recognition for middle childhood. Examines diagnostic and instructional procedures related to special needs of very low to high achieving readers. Prerequisite: EDT 346A or 346M.

EDT 444/544 Language Teaching and Learning I (3)
The first of two courses preparing pre-K-12 foreign language teacher candidates to become critical and reflective professionals, to use theoretical underpinnings, to apply national standards, best-practices, cutting-edge curricula, current trends and to infuse technology in teaching languages.

EDT 445/545 Language Teaching and Learning II (3)
The second of two courses preparing pre-K-12 foreign language teacher candidates to become critical and reflective professionals, to use theoretical underpinnings, to apply national standards, best-practices, cutting-edge curricula, current trends and to infuse technology in teaching languages. Concurrent course(s): EDT 446L/546L. Prerequisite: retention in foreign language cohort at the instructional procedures waypoint.

EDT 446A/546A Integrating Literacy Across the Content Areas (3)
Basic course in instructional principles and methods for integrating literacy across the content areas in grades 7-12. Prerequisite: Retention in your adolescent/young adult education cohort at the instructional procedures waypoint. Part of methods block for mathematics, social studies, and science education majors.

EDT 446L/546L Reading in the Foreign Language (3)
Basic course in instructional principles and methods for teaching reading and study techniques in foreign language in secondary schools. Emphasis on developmental strategies to improve reading comprehension and vocabulary. Prerequisite: admission to and retention in the foreign language cohort. Part of methods block for foreign language education majors.

EDT 448E/548E Reading Practicum for Early Childhood (3)
Supervised experience in teaching a primary grade student having difficulty in reading. Emphasizes principles and methods for special needs instruction. Prerequisite: Admission to and retention in early childhood cohort and successful completion of early field block. Part of early childhood literacy block.

EDT 448M/548M Reading Practicum for Middle Childhood (3)
Supervised experience in teaching a middle grade student having difficulty in reading. Emphasizes principles and methods for special needs instruction. Co-requisite: EDT 442M/542M.

EDT 450/550 Special Problems (1-3; maximum 6 toward any degree)
Individual study or research of problems of learning, instruction, or curriculum with guidance of department faculty member. Prerequisite: senior or graduate standing and written approval of instructor and department chair.

EDT 452/552 Teaching Social Studies in the Intermediate Grades (3)
Topics include the content required to teach social studies in the intermediate grades as well as strategies, activities, and materials for developing pedagogical competencies. A field component is required. Prerequisites: successful completion of an early childhood social studies methods course.

EDT 453/553 Practicum & Praxis Grades 4-5 (1)
Topics include content required to teach language arts, mathematics, science, or social studies in the intermediate grades as well as strategies, activities, and materials for developing pedagogical competencies as reflected on the Praxis II Elementary Content Knowledge Examination (www.ets.org) - test code 10014. A field component of implementation of content and pedagogical knowledge is required, either in this course or in one or more of the following: EDT 405/505, EDT 452/552, or EDT 465/565.

EDT 455 Comparing Selected U.S. & European Schools (3)
The class encompasses three weeks of travel in Europe as well as class sessions in Oxford. Students spend time in European classrooms observing educational practices in these cultures for the purpose of identifying similarities and differences between the U.S. and Europe. The class is approved to meet the capstone requirement.

EDT 463/563 Updating Elementary School Mathematics Instruction (3)
Innovative activities, materials, and programs for elementary school mathematics. Curricular and instructional decision-making based upon study of current state and national recommendations and of current research. Emphasis on the teaching of problem solving (K-8). Prerequisite: EDT 318E or 429 or 430. Offered infrequently.

EDT 464/564 Teaching Geometry and Metric Measurement in Grades P-9 (3)
Strategies, activities, and materials for developing geometric and measurement competencies in elementary school children, with emphasis on the metric system of weights and measurements. Offered infrequently. Prerequisite: EDT 318E or EDT 429.

EDT 465/565 Learning and Teaching Mathematics in the Intermediate Grades (3)
Topics include the content required to teach mathematics in the intermediate grades as well as strategies, activities, and materials for developing pedagogical competencies. Prerequisite: successful completion of an early childhood mathematics methods course.

EDT 466/566 Diagnostic and Prescriptive Mathematics Instruction (3)
Diagnostic and prescriptive mathematics teaching with special emphasis on provisions for the general mathematics pupil in K-12 as well as for remediating learning deficiencies. Prerequisite(s): Graduate standing.

EDT 473E/573E Facilitating Affective and Creative Experiences with Young Children (3)
Study of the role of affective domain in development of young children (birth through age 8), including ways of facilitating self concept, curiosity, learning style, and play. Prerequisite: admission to early childhood cohort. Part of literacy block.

EDT 474E/574E Facilitating Cognitive Experiences with Young Children (3)
Methods and materials for early childhood education majors. Modules include communication areas, social studies, science, health, and mathematics. Prerequisite: retention in early childhood

cohort and successful completion of literacy block. Part of content integration block.

EDT 482/582 Curriculum & Methods of Instruction: Special Gifts (3)
Introductory course to explore teaching and learning strategies and materials for teaching gifted children. Offered infrequently; summer only.

EDT 486/586 Teaching Environmental Education (4)
Emphasis on land laboratory development, experiments, instructional games, practical outdoor experiences, and environmental values. Objectives, curriculum design, and instructional procedures discussed. Prerequisite: at least junior standing and a minimum of six hours of science courses.

EDT 494/594 Field Experiences with Young Children (2-10)
Supervised experiences in early childhood settings. Regularly scheduled seminars with university supervisors. Specific assignments arranged. Prerequisite: EDP 201 and retention in early childhood cohort.

EDT 495 Writing Information Books for Children (3)
Drawing on content knowledge gained from coursework in major courses of study, students will each write an information book for a diverse community of children. As an authentic learning experience, the course will include the study of children's literature and writing for children, the creation of a writing community among participants, and development of ways to share the books globally. Capstone course open to all students.

EDT 600 Independent Reading (1-3; maximum 6 toward any degree)
Planned reading in any field curriculum or instruction with guidance of a department faculty member. Prerequisite: regular standing in graduate school, minimum of 10 hours in education, and approval of the plan of study by department chair.

EDT 603 Language, Literacy and Culture (3)
Examination of children's literacy development with particular emphasis on the cognitive, linguistic, and socio-cultural factors which influence literacy learning and teaching. Prerequisite(s): Graduate standing or permission of instructor.

EDT 604 Research in Literacy (3)
Introduction to graduate study and research in literacy education for classroom teachers and other literacy educators. Particular focus will be placed on reading and critiquing research in literacy, developing a basic understanding of research methods commonly used in studying literacy, and gaining experience in developing a research proposal. Prerequisites: EDT 603 or equivalent.

EDT 610 Applied Studies in Classroom Teaching (1-3; max.12; max. 9 toward any degree)
Practicum to meet specific classroom needs of the instructional staff of a school, school system, or group of subject area teachers. Structured after needs-assessment made. Prerequisite: minimum of 10 semester hours of professional education courses.

EDT 622 Improvement of Teaching in the Public School (3)
Advanced course in principles and practices for improving instruction in modern secondary schools with emphasis on research findings and innovation. Prerequisite: graduate standing or 15 hours in education or permission of instructor. Summer only.

EDT 625 Teaching Writing (3)
Advanced course in the teaching of writing, emphasizing procedures and strategies for teaching writing, development of students' own writing skills in a number of genres, readings in recent theory and practice of teaching writing, and case study research methods. Students must gain access to a K-12 classroom to complete their case study. Appropriate for both elementary and secondary school teachers across the curriculum.

EDT 626 Literature for Children (3)
Intensive study of current books and issues related to the user of diverse literature in early grades. Prerequisite: Graduate standing or elementary school teaching experience.

EDT 627 Literature for Adolescents and Young Adults (3)
Intensive study of current literature and issues related to diverse reading needs and interests of adolescents and young adults. Prerequisites: Graduate student standing or permission of instructor.

EDT 632 Literacy Assessment and Instruction (3)
In-depth examination of clinical and classroom aspects of literacy assessment and instruction. Includes a supervised experience in assessing and tutoring children having difficulty learning to read and write. Prerequisite: EDT 603.

EDT 634 Clinical Reading Practicum I: Assessment (3)
Advanced field-based experience related to the assessment of reading and writing. Supervised practicum experience in a public school setting involving tutoring of public school students experiencing reading and writing difficulties and interaction with their parents and teachers. Prerequisite: EDT 603, EDT 632, EDT 642, EDT 646. Co-requisite: EDT 635.

EDT 635 Clinical Reading Practicum II: Instruction (3)
Advanced field-based experience related to the teaching of reading and writing. Supervised practicum experience in a public school setting involving tutoring of public school students experiencing reading and writing difficulties and interaction with their parents and teachers. Taken concurrently with EDT 634. Prerequisite(s): EDT 603, EDT 632, EDT 642, EDT 646.

EDT 636 Literacy and Leadership (3)
Theoretical and practical exploration of the roles of the reading specialist/literacy coach in supporting teachers and other education professionals in the planning, implementation and evaluation of effective literacy instruction. Designed as a practicum or internship to meet specific literacy coaching needs of instructional staff of a school, school system or group of subject area teachers. Prerequisite(s): EDT 603, 632, 642, 646, 634, 635. Internship required.

EDT 642 Phonics and Reading Improvement for the Reading Teacher (3)
Examination of principles and practices of literacy development using phonics as a component of reading and writing instruction. Focused on instructional strategies, materials and programs aimed at teaching phonics and spelling targeting the specific needs of developing and struggling readers and writers. Prerequisite: EDT 603.

EDT 643 Applied Linguistics (3)
Application of linguistics to children's literacy development. Particular emphasis will be placed on the practical applications of linguistic knowledge in phonetics, phonology, syntax, morphology, and semantics to literacy and its teaching in Pre-K-12 settings. Prerequisites: EDT 603.

EDT 646 Reading and Writing in Content Areas (3)
Examination of the research, theory, curricula, and methods for integrating the teaching of reading and writing across the disciplines such as mathematics, science, social studies. Prerequisite(s): EDT 603, 604.

EDT 652 History and Philosophy of Social Studies Education (3)
Examines the historical and philosophical underpinnings of Social Studies Education as a subject in American schools during the twentieth and early twenty-first centuries.

EDT 656 Special Investigation in Selected Social Studies Areas (1-3)
Intensive reading and research or selected projects in a problem area. Prerequisite: at least nine semester hours of any social science. Offered Infrequently.

EDT 660 Seminar in Mathematics Education (1-3; maximum 6)
Current issues and research in mathematics education. Prerequisites: certification or current enrollment in a certification program.

EDT 663 Advanced Methods for Adolescent Mathematics (3)
Innovative activities, materials, and programs for junior high and high school mathematics. Curricular and instructional decision-making based upon study of current state and national recommendations and of current research. Emphasis on the teaching of problem solving (7-12). Prerequisite: Teacher certification/licensure or permission of instructor.

EDT 665 Technology Applied in Math Education (3)
Use of technological equipment (e.g., computers, calculators, probes), curricular materials, and teaching/assessing strategies for teaching mathematics using technology to students in grades 4-12.

EDT 669 Mathematics Coaching for Grades P-6
This course will provide the foundation for potential math coaches to include a knowledge base of facilitation skills, the change process and the standards of quality of professional development. The course will focus on examining several coaching models and their various components. An "internship/field experience" is required. Prerequisite(s): EDT 563 or comparable course.

EDT 671 Educational Investigation in Reading & Language (1-4)
Seminar on research in reading and language for teachers, principals, and supervisors.

EDT 689 Interpretation and Application of Research in Education (3)
Interpretation and application of educational research methods, including comparison of alternative philosophies of research, ways of formulating hypotheses, and making research plans. Prerequisite(s): Graduate standing.

EDT 690 Practicum in Research in Education (3)
Provides students the opportunity to prepare a research report based on purposeful research in education. The end product of this course is a detailed report or manuscript that adds to the student's understanding of phenomena and serves as one part of the master's exam. Prerequisite(s): Completion of at least 12 graduate hours and IRB approval for conducting research with human subjects before the 3rd class meeting. It is expected that the student will have completed the majority of the courses in his or her program.

EDT 700 Thesis (1-12)

THEATRE COURSES (THE-Fine Arts)

THE 101 Introduction to Theatre: Drama and Analysis (3) MPF, MPT
Examination of drama and theatre production as modes of human expression focusing on script analysis and relating style to historical and contemporary production values. Co-requisite: THE 103. IIA. CAS-B.

THE 103 Introduction to Theatre: Production and Performance (1) MPF, MPT
Practical application of techniques in performance, technical production, and management. Involves average of 50-70 hours per semester, planned around student's schedule and demands within area of participation. Co-requisite: THE 101. IIA.

THE 123 Acting for the Non-major (3)
Introduction to the art of acting for the non-theatre major. Focuses on developing basic acting skills through improvisation and scene work; includes study of script analysis and acting theory. Credit cannot be applied to major or minor degree in theatre.

THE 131 Principles of Acting (3)
Introductory course for theatre majors and theatre minors examining performance as an essential component of theatre. Focuses on dynamics of building an effective ensemble. Introduces theories and principles of acting techniques including script analysis, characterization, and action.

THE 151 Stage Makeup (1)
Principles and techniques of makeup for stage. Practical execution of selected stage makeup problems. Responsibility to production assignment during term. Preference for registration given to theatre majors. Prerequisite: major or permission of instructor.

THE 191 Experiencing Theatre (3) MPF, MPT
Oriented toward development of awareness as an audience member. Studies theories and methods of understanding a theatrical presentation, through study of dramatic literature, production traditions, and viewing productions. IIA, H. CAS-B.

THE 200 Production and Performance Practicum (1; maximum 8)
Open to all university students. Laboratory experience in performance, design, technical production, and management. Each student selects area of theatrical production to participate in for the semester. Involves average of 50-70 hours per semester, arranged around student's schedule and demands within area of participation. Registration through consultation with theatre faculty member required.

THE 202 Stagecraft (3)
This course is intended for all beginning students of theatre technology and the art of visual production for live performance. The major objective of this course is to provide the student with a basic knowledge of the techniques, tools, and materials of scenery fabrication and to introduce artistic and practical considerations that underlie them. Co-requisite: THE 204.

THE 204 Stagecraft Lab (1)
This lab, taken in conjunction with THE 202, is intended to provide the student with hands on experience building, painting, and assembling theatrical scenery for the Miami University Department of Theatre. Involves an average of 40-70 hours per semester, planned around the student's schedule and the demands of various productions. Co-requisite: THE 202.

THE 221 Children's Theatre Performance Development (1)
This course will introduce the students to rehearsal and production development practices related to touring performances of an operetta for children. These will include vocal exercise & maintenance, multi-part harmonies, costume, scenic, and property design appropriate for ground and air touring.

THE 222 Children's Theatre Tour and Practice (1)
The course will focus on a rehearsal process measured on the specific needs and curiosities related to touring performances to children in varied circumstances and venues, including consideration of performances for children with special needs, children without a significant use of English, and children in disadvantaged environments. Leads to a small number of performances locally and culminates in an international tour during Spring Break. Prerequisite(s): THE 221.

THE 223 Introduction to Czech Travel and Culture (1)
Through lectures, readings, films and discussions it will provide the student with a modest background in the history and culture of the Czech Republic, an introduction to the teaching of conversational English to non-native speakers, and preparation for living and travel in a region where English is not a dominant language.

THE 231 Acting Realism (3)
Study and development of the foundational elements of acting technique for realist drama. Prerequisite: THE 131.

THE 232 Movement for Actors I (2)
Training and development of the body for the actor including relaxation, alignment, and personal range. Prerequisite: THE 131.

THE 233 Voice and Speech for Actors (2)
Introductory course that lays the foundation for building a healthy, expressive and flexible voice. Exploration of the physiology of vocal production including breath, phonation and resonance. Development of the basic skills for stage speech. Prerequisite: THE 131.

THE 238 Improvising Toward Devising: Creating Theatre Through Performance Techniques (3-4; maximum 4)
A class about the making of theatre from the actor's imagination. Introduces students to existing and immerging techniques of text creation through improvisation. We place tour work in context to the art of theatre and the societies they come from through the study and analysis of existing works.

THE 239 Alexander Technique (1)
Introduction to the Alexander Technique for theatre and music students. Basic anatomy, body-mapping and principles of the Technique (coordination of the self with efficiency and ease) are explored in group lessons and in application to creative activity. Course is offered for credit/no credit only.

THE 251 Visual Communication for the Theatre (3)
Fundamentals of the visual means of communication in theatre through the study of the elements and principles of design, establishment of compositional problems as they relate to theatre, and representation of design solutions through a variety of common media. Prerequisite(s): THE 101, 103.

THE 252 Technical Production (3)
Types of scenery construction, rigging, and handling. Representation of engineering problems through mechanical drawings. Involves participation in production crews for major productions. Prerequisite: THE 202 or permission of instructor. Offered infrequently.

THE 253 Costume Fundamentals (3)
A practical exploration of the techniques used to realize the costume design including dyeing, pattern drafting, texture, and fashion history.

THE 254 Lighting Fundamentals (3)
Equipment, materials, methods, and techniques of lighting designs for theatrical productions. Topics include instrumentation, color media, control systems, projection equipment, and rigging procedures. Involves participation in lighting crews for major productions.

THE 291/292 World Stages (3,3)
A survey of world stages that includes western theatre history and global performance practices. These courses introduce the student to theatre and performance as a social and cultural construction that is directly related to the place and time in which it occurs. Courses also explore the ramification and manifestation of internal and external influences on the theatre/performance of a given locale. Open to majors only. Prerequisite: THE 101, THE 102.

THE 314 Playwriting (4)
Theory, technique, and practice of playwriting. Prerequisite: permission of instructor. Cross-listed with ENG 314.

THE 331 Advanced Scene Study (3)
Techniques learned in 231 applied to problems of acting scripted materials. Actor's approach to script analysis emphasized. Prerequisite: THE 231.

THE 332 Movement for Actors II (2)
Training and development of the body for the actor including the warm-up pattern, T'ai Chi, body image, and tempo-rhythm. Prerequisite: THE 232.

THE 333 Stage Dialects (2)
Development and training of skills for the acquisition and performance of dialect and accents for the stage. Prerequisite: THE 233

THE 340 Internship (1-16)
Preprofessional program for exceptionally qualified students. Must be arranged through consultation with departmental adviser.

THE 341 Fundamentals of Directing (3)
Aesthetic principles, analysis, and exercises in composition, picturization, blocking, business, communication, and leadership. Prerequisite: THE 102 and 251.

THE 342 Stage Management (2)
Principles and techniques of stage management in theatrical production. Study of the accepted practices used in professional companies, including the requirements and regulations established by Actors Equity Association and variations in practice with regard to educational, community, and regional companies. Requires participation in departmental stage management activities that require evening and weekend work.

THE 391 Modern American Theatre (3) MPT
Major forces that shaped American theatre from Eugene O'Neill and Provincetown Playhouse through avant-garde of the Off-Off Broadway movement. Emphasis placed on leading dramatists, performers, and designers of the period as well as such organizations as Group Theatre, Federal Theatre Project, and Living Theatre. Prerequisite: junior or senior standing. CAS-B.

THE 392 Modern European Theatre (3) MPT
Major forces that shaped European theatre from Ibsen and Duke of Saxe-Meiningen through Pinter, Handke, and audience-actor experiments of Peter Brook. Emphasis on leading dramatists of the period as well as various stylistic alternatives to theatrical realism. Prerequisite: junior or senior standing. CAS-B.

THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3) MPT
May be offered with various focuses (including African, African American, Latin American, Asian American, feminist perspectives, as well as others); explores alternative cultural, ethnic, and gender issues in dramatic literature. Emphasis on developing student appreciation of and critical response to traditional and nontraditional forms of drama.

THE 395 American Musical I: A History to 1950 (3)
This course traces the development of the American Musical Theatre from 19th century forms of entertainment through the "Golden Age" of the 1940's. The changing shape of the musical will be explored in context of a growing and developing American culture and the expression of a national identity.

THE 396 The American Musical II: A Contemporary History 1950-2005 (3)
In depth exploration of how content, style and production approach of the American Musical changed as American culture, society and thought changed between 1950 and today. Analysis of forms and trends in today's musical theatre to better understand its possible future in a dynamic society.

THE 400 Advanced Production and Performance Practicum (2; maximum 4)
Practical experience in advanced design, engineering, technical production, and performance positions for major theatre productions. Independent study permit required. Prerequisite: senior standing and permission of instructor.

THE 432/532 Acting Shakespeare (3)
Advanced acting class focusing on the particular demands of acting Shakespeare's text. Exploration of heightened language, verse structure, scansion, and text analysis for performance. Prerequisites: THE 231.

THE 437/537 Professional Qualifications I: Auditions (2)
Preparation for entry into graduate schools, professional internships, or repertory companies for actors. Prerequisites: THE 101, THE 231, junior standing and permission of instructor.

THE 438/538 Professional Qualifications II: Agencies (1)
Study of agencies, unions, regulations, work rules, and resources. Prerequisites: THE 101 or permission of instructor.

THE 439/539 Special Techniques for the Actor (3; maximum 6)
Practical application and exercises in advanced skill areas such as, Alexander, Feldenkrais, circus skills, mask training, hand-to-hand combat, weapons, comedy, period movement. Topic varies.

THE 441/541 Methods and Styles of Play Directing (3)
Scene study and presentations in selected genres and styles. Focus on development of directorial concept, unity, and effect. Prerequisite: THE 341.

THE 451/551 Scenic Design (3)
Theory and principles of scenic design for stage. Conceptualization and communication of design ideas through script analysis, sketches, renderings, models, floor plans, and elevations. Prerequisite: THE 102 and 251.

THE 452/552 Scenic Painting and Scenic Art (3)
Theory and practice of scenic art through study of and work with varying types of paints, dyes, and texturing techniques used in scenic painting; layout tools and equipment are used to set up projects using fundamental and advanced painting techniques. Faux finishes are explored as parts of the basic requisite techniques. Prerequisite: THE 251 or permission of instructor.

THE 453/553 Costume Design (3)
Principles and theories of costume design for theatrical productions. Conceptualization and communication of design ideas through script analysis, sketches, fabric studies, and renderings. Prerequisite: THE 102 and 251 or permission of instructor.

THE 454/554 Lighting Design (3)
Theories and principles of lighting design for theatrical productions. Conceptualization and communication of design ideas through script analysis, light studies, light plots, and related projects. Prerequisite: THE 102, THE 251, THE 254 or permission of instructor.

THE 455/555 Tutorial in Advanced Problems (1-6; maximum 6)
Supervised execution in theatrical design problems and projects. May be repeated for credit within maximum. Independent study permit required. Prerequisite: permission of instructor.

THE 455A/555A Scenic Design

THE 455B/555B Lighting Design

THE 455C/555C Costume Design

THE 455D/555D Technical Production

THE 455E/555E Sound Design

THE 455F/555F Makeup and Mask Design

THE 456/556 Sound Design (3)
Theories and principles of sound design for live performances. Conceptualization and communication of design ideas through script analysis, aural studies, multi-track editing, live mixing, and related projects. Prerequisite: THE 102, THE 254 or permission of instructor.

THE 461/561 Theatre Management (3)
Theories and practices of theatre management and administration. Offered infrequently.

THE 480 Independent Reading and Projects for Departmental Honors (0-6; maximum 6)
Departmental honors may be taken during the senior year. Departmental approval required.

THE 490 The Theatre and a Cultural Aesthetic (3) MPC
Reflects on the entire baccalaureate experience through the systematic exploration of historical and/or contemporary issues. Establishes a series of topics and a focus for every unit. The four units address: 1) foundations in aesthetic theoretical positions, 2) models from the past and present 3) extensions into other contemporary cultures, and 4) projections into a global future. Integrates the theory and practice experience to broaden understanding of issues theatre artists encounter as they interact with, reflect on, and interpret the circumstances of their society.

THE 491/591 Theatre History I (3)
Survey of major dramatists, movements, and practices of dramatic presentations from Classical Greece through Neo- Classic France. CAS-B.

THE 492/592 Theatre History II (3)
Survey of major dramatists, movements, and practices of dramatic presentations from restoration England through the end of 19th century. CAS-B.

THE 493/593 American Theatre (3)
Major playwrights, performers, and critics who shaped the course of theatre from Hallam Company to Theatrical Syndicate. Emphasis placed on development of indigenous drama in 19th century. CAS-B. Offered infrequently.

THE 495 Summer Children's Theatre Tour (4)
Rehearsal, development, & touring of a production of a 30-minute operetta for children. Prerequisites: Audition & permission of instructor, Sophomore, Junior, or Senior standing.

THE 496/596 Field Studies in the Czech Republic (8)
A 5 1/2 week immersion course in Czech Theatre, society & culture. THE 496 includes the teaching of conversational English in the Olomouc public school system & living with Czech host families, a heavy concentration on attendance at Theatre, Opera & Ballet, and travel to Auschwitz & Krakow, Prague & other areas. THE 596 includes dormitory residence in Olomouc and Prague, a primary concentration on attendance at Theatre, opera, & ballet, implementation of individual focus projects, and travel to Auschwitz, Krakow, & other areas. Prerequisite: Permission of instructor.

THE 601 Research and Methodology (3)
Introduction to research with emphasis on problem solving, techniques of historical, critical, and descriptive bibliography. The course includes an application of critical research methodologies in theatre scholarship. Emphasis on the process of constructing a research project for departmental graduate conference. Prerequisite: graduate standing.

THE 603 Introduction to Theatre Historiography (3)
An introduction to the historiographical theories and methodologies most prevalent in Theatre Studies today.

THE 605 Introduction to Theatre and Performance Theory (3)
Course provides student with introduction to current theoretical approaches to theatre and performance.

THE 610 Graduate Seminar in Theatre Topics (3)
Intensive study of a major topic in theatre studies. Topics could investigate a single movement or multiple movements, theatre artist (s), theatrical style(s) of world theatre. Topics could also include intensive study and research in selected topics in theatre history and drama with emphasis in historiography. Topic varies. Prerequisite: graduate standing.

THE 614 Playwriting and Dramaturgy (3)
Applied theory, technique, and practice of playwriting and dramaturgy. Prerequisite: graduate standing and permission of instructor. Offered infrequently.

THE 640 Summer Theatre Practicum (4-8; Maximum 16)
Provides graduate students with opportunities for leadership and responsibility in the solution of advanced problems of production associated with performance in a practical repertory theatre.

THE 641 Directing Seminar (3; maximum 6)
Practical application of specific theories involved in directing a play. Prerequisite: graduate standing or THE 441, senior standing, and permission of instructor.

THE 650 Directed Reading in Design Theory and Practice (1-6; maximum 12)
Readings in major theoretical and practical works on theatrical design. Prerequisite: graduate standing and permission of instructor. Offered infrequently.
650A Scenographic theory
650B Scenic and lighting design
650C Costume design

THE 650A Scenographic theory

THE 650B Scenic and lighting design

THE 650C Costume design

THE 660 Independent Project (1-4; maximum 8)

THE 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)

THE 703 Graduate Colloquium in Theatre Studies (1)
Graduate Colloquium in Theatre Studies is a one credit hour course that students take each semester during their MA residency in the Department of Theatre. The course is an introduction to the profession, an open symposia devoted to departmental and university lectures, attendance at regional and national conferences, field studies in the art of theatre and related fields, and opportunities to share research with present and future colleagues.

THE 780 Graduate Production Studio (1-6; maximum 24)
Directed performance and production in theatre and dramatic art. Credit/no-credit only. Prerequisite: graduate standing and permission of instructor.

THE 780A Directing

THE 780B Acting

THE 780C Technical Production

THE 780D Playwriting

THE 780E Theatre Management

THE 780F Stage Management

THE 780G Scene Design

THE 780H Costume Design

THE 780I Lighting Design

THE 780J Sound Design

THE 780K Makeup Design

WESTERN PROGRAM COURSES (WST- Arts and Science)

WST 103 Introduction to Community Service and Learning (2)
Focuses on the use of service and community engagement as pedagogy for higher education.

WST 110 Introduction to Contemporary Issues (2)
Draws on experiences of guest faculty and alumni speakers to model how engaged learning leads to informed action. Readings on the chosen focus emphasize an integrative perspective; students may repeat the course for credit when the topic changes.

WST 201 Self and Place (3)
People desire attachment, the sense of belonging to things larger than our selves, to cultural and physical places that grant meaning to our lives. Yet how do places and personalities interact? How do the meanings we attach to spaces help fashion our identities? This course examines these and related issues. We will use various disciplinary models for examining how place and identity interact in American culture and also the ways in which our culture encourages us to disengage from our specific surroundings.

WST 120 Peer Leadership Practicum (1)
Trains students to take a leadership role in inquiry, peer education, and campus outreach.

WST 203 Service-Learning: Theory into Action (2)
Focuses on sustaining community and faculty partnerships as part of cultivating a culture of service. Prerequisite: WST 103.

WST 231 Interdisciplinary Inquiry (3; maximum 6)
In exploring a particular theme/topic, which will differ each semester, students will learn about and participate in the process of inquiry-based discovery through instructor-generated inquiries, student-generated inquiries, discipline-specific lectures, discipline-specific inquiry methods and techniques in the arts, humanities, sciences, and social sciences, and explore the uses of an interdisciplinary approach to knowledge construction. CAS-B-Humanities OR CAS-C Social Science.

WST 251 Individualized Studies Seminar (1)
Uses classroom and campus living experiences to examine the integrative nature of interdisciplinary theory through reading, discussion, and papers. Students will complete a statement of educational objectives and shape an interdisciplinary focus of study.

WST 301 Interdisciplinary Problems and Questions (3)
Considers a complex topic from the distinct vantage points offered by different fields of inquiry, including philosophical, aesthetic, scientific and historical discourse, with an emphasis on achieving an

integrative understanding of the topic. Team-taught by two or more faculty members with different disciplinary and/or interdisciplinary expertise. CAS-B-Humanities OR CAS-C Social Science.

WST 321 Developing Interdisciplinary Projects I: Exploring Ways of Knowing (3)
Investigates a complex topic with specific attention to developing competence in understanding and using methodologies and theoretical approaches from the sciences, social sciences, humanities, and/or the arts, emphasizing the tensions that emerge from the interplay of disciplinary and interdisciplinary knowledges. Based on course topic, identifies and critiques the distinctive epistemologies associated with particular disciplinary and interdisciplinary practices to promote the comparative analysis and integration of multiple perspectives on that topic. Prerequisite: WST 301.CAS-B-Humanities OR CAS-C Social Science.

WST 322 Developing Interdisciplinary Projects II: Using Analytical and Rhetorical Tools (3)
Investigates a complex topic with specific attention to developing competence in understanding and using the analytical and rhetorical tools for interdisciplinary inquiry in the arts, humanities, sciences, and/or social sciences. Based on course topic, identifies and analyzes representational practices (e.g., written texts, performances, new media, statistical surveys, scientific studies) in the context of their explanatory and persuasive aims to promote the production of creative strategies for representing and addressing complex problems and questions. Prerequisite: WST 301. CAS-B-Humanities OR CAS-C Social.

WST 341 Interdisciplinary Synthesis and Action (3)
Integrates diverse methods of inquiry to forward the development of student projects that synthesize their learning on a complex topic. Working on their own or in teams, students develop action-based approaches with a strong aspect of public performance and/or engagement. Prerequisite: WST 321 or 322. CAS-B-Humanities OR CAS-C Social Science

WST 397 American Environmental History (3)
Introduction to human-natural environment relationships in English North America and the United States, ca. 1600 to present. Chronological and regional approach with emphasis upon political economy and the American conservationist/environmentalist movement. Cross-listed with AMS 397.

WST 421 Senior Project Proposal Workshop (2)
Supports student planning of senior project by focusing on proposal formulation, action plan, literature review, methodology, and project evaluation/assessment; culminates in public defense of full proposal with program faculty and students. Prerequisite: WST 321 or 322.

WST 444/445 Senior Workshop and Project (5, 5)
Focuses on the production of the required senior project, a major piece of scholarship that may report the results of original research, field or laboratory work; comment on the creation of original art, music, theater, performance, fiction, or other forms; or analyze the significance of a community involvement or social action accompanied in each case by a review of relevant literature and an original written text that places the work in pertinent contexts. Work with direction of a faculty adviser. Weekly workshops provide a forum in which to share with peers the process of writing, revision, and research, advanced bibliographic instruction, assistance in organizing the tasks of a major paper, peer editorial and rhetorical oversight, and practice in public presentation of results. Workshop culminates in a public conference where results of the year's work are presented. Prerequisite: Senior standing and completion of preceding WST requirements.

WOMEN'S STUDIES COURSES (WMS-Arts and Science)

Note: The following cross-listed courses are available in Women's Studies. For more information, consult the listing in the appropriate department.

ATH/BWS/LAS 325 Identity: Race, Gender, Class (MPT)
BWS 370E Feminism and the Diaspora: U.S. Women of Color (MPC)
CLS 235 Women in Antiquity (MPT)
COM 461 Gender and the Media
ENG 232 American Women Writers (MPT)
ENG 233 British Women Writers (MPT)
ENG/FST 350B Women in Film (MPT)
ENG 368 Feminist Literary Theory and Practice (MPT)
ENG 435 Queer Theory
ENG 468 Gender and Genre (MPT)
FSW 361 Couple Relationships: Diversity and Change (MPT)
GEO 406 Indigenous Peoples and Their Sacred Lands
GEO 436 Women, Gender, and the Environment
HST 250B Gender and Third-World Film
HST 323 Women and Gender in Modern Europe
HST 381 Women in Pre-Industrial Europe (MPT)
HST 382 Women in American History (MPT)
HST 383 Women in Chinese History (MPT)
HST 384 Contemporary Women's World History
HST 450 Topics in Women's History (MPT)
KNH 243 Women's Health Care: Problems and Practices
KNH 475 Women, Gender Relations, and Sport
MUS 287 Enter the Diva: American Women in Music from 1900-Present
PHL 355 Feminist Theory (MPT)
POL 346 Women in Politics
POL 347 Women and the Law
POR/ENG/BWS 383 By or About (Afro-) Brazilian Women
PSY 326 Psychology of Women
REL 333 Religion, Dress, and Status
REL 334 Women's Religious Experience in the Ancient Mediterranean World (MPT)
REL 335 Women in the Bible
SOC 203 Sociology of Gender Roles (MPT)
SOC/FSW 221 Human Sexuality
SOC 272 Women in Popular Culture (MPT)
SOC/FSW 451 Family Violence
SOC/GTY 463 Gender and Aging (MPT)

WMS 201 Introduction to Women's Studies (3) MPF, MPT
Interdisciplinary introduction to the study of women which focuses on determinants and expressions of women's roles. IIA, IIC, Cul. CAS-C.

WMS 202 Introduction to GLBT Studies (3)
Introduction to the scholarly field of GLBT (Gay, Lesbian, Bisexual, Transgender) Studies. Provides the intellectual foundation for the further study of non-normative genders and sexualities. CAS-B-OTHER HUMANITIES.

WMS 221 Human Sexuality (3)
Introduction to the study of human sexual behavior with particular attention paid to the issues of gender development; premarital, marital, and post-marital sexual
patterns; birth control; sexual dysfunction; cross-cultural sexual patterns; and alternative sexual lifestyles. Cross-listed with FSW and SOC.

WMS 232 American Women Writers (3) MPT
Survey of American Women's writing from Anne Bradstreet to the present. Cross-listed with ENG 232. CAS-B-LIT.

WMS 233 British Women Writers (3) MPT
Works by British women, from the 19th century to the present. Cross-listed with ENG 233. CAS-B-LIT.

WMS 235 Women in Antiquity (3) MPT
Study of the status of women in the Greek and Roman world from Bronze age through early centuries of Christianity conducted in light of literary, artistic, and archaeological evidence in order to increase knowledge and understanding of Greek and Roman family and social life and of our own society as well. Cross-listed with CLS 235.

WMS 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)
Provides a critical analysis of the historical, sociological, cultural, media and educational images and representations of women with disabilities. Current research and theories from Disabilities Studies and Womens Studies will serve as the lenses for the exploration of disability as a social construct. The course will focus on exploration of oppressive social forces embedded in the re/presentations of and by women with disabilities which transform and complicate such images. Cross-listed with DST/EDP/SOC 278.

WMS 282 Art and Politics (3) MPF
Explores relationship between art and politics as manifested in images and monuments of different time periods. Emphasis is not on chronological development, but on the shifting relationship between art and politics. Cross-listed with ART.

WMS 301 Women and Difference: Intersections of Race, Class, and Sexuality (3)
Investigation of the interdisciplinary theoretical approaches to the interplay of race, class, gender, sexual orientation, and other aspects of social identity in women's lives; analysis of the ways social difference is defined, used, and experienced. Emphasis on feminist and womanist theories that take into account the interdependence of multiple categories of social difference. Prerequisite: WMS 201. Open to majors and minors or other students with permission of instructor.

WMS 309 Native American Women (3)
A survey of writings and film by and about Native American women. The objective of the course is to provide students with a broad overview of Native American perspectives on a variety of topics including indigenous viewpoints on research methods, environmental activism, politics and policy, and critical analysis. Cross-listed with GEO 309.

WMS 325 Identity, Race, Gender, Class (3) MPT
Develops conceptual tools and critical perspectives that enable students to better understand and analyze the processes through which identities are constructed and experienced. Learning activities facilitate analysis of individual identities as experienced through the life cycle and across diverse cultural and subcultural contexts, and build a systematic understanding of the processes and dynamics through which identities and identity groups develop and interact. Cross-listed with ATH, BWS and LAS 325.

WMS 335 Women in the Bible (3)
Study the images of women in the Hebrew Bible, New Testament, and related literature from the Second Temple Period. We will explore the roles that women play within biblical narratives (as wives and mothers; as heroes and villains; as warriors, queens, and prophets), the variety of metaphorical/symbolic uses of femininity in biblical traditions, and examine the social and cultural contexts in ancient Israel and early Christianity in which these stories were generated. We will also play close attention to different interpretations of these ancient texts over the centuries and across cultures, and discover how modern feminist readings cast a new light on our understanding. Cross-listed with REL 335.

WMS 361 Couple Relationships: Diversity and Change (3)
Investigation of intimate couple relationships in their many diverse forms. Focuses on social and psychological factors influencing development and maintenance of such couple relationships as dating, cohabitation, and marriage. General principles are discussed as well as factors that are more specific to certain age groups, relationship types, or sociocultural settings. Prerequisite: three hours of social science. Cross-listed with FSW 361.

WMS 368 Feminist Literary Theory and Practice (3) MPT
Introduction to feminist literary theory; deals with how feminism has shaped reading and interpretive practices, and develops some practical strategies for literary study. Cross-listed with ENG 368. CAS-B-LIT.

WMS 370 Selected Topics in Women's Studies (3)
Examines specific aspects of women's roles, status, and experiences.

WMS 370E Feminism and the Diaspora: U.S. Women of Color (3) MPC
Concerns issues of language, history, geography, social-psychology, and culture for U.S. women of color (black, Asian-American, Latina, American Indian, and others). Includes works by and about women on gender, ethnicity, class, sexuality, and other differences. Cross-listed with BWS 370E.

WMS 375 (Dis)Ability Allies: To be or not to be? Developing Identify and Pride from Practice (3
Explores what it means to be ally to/in/with the disability community in America. The course emphasizes identity formation and how that formation can inform the construction of the ally identity. Through deconstructing learned values, knowledge, and images of disability that mitigate ally behavior, students discover the micro and macro structures that support ally behavior. By exploring how social control and social change have worked in other civil rights movements, students understand the necessity of identifying and including allies in the disability movement for civil rights. Cross-listed with DST/EDP/SOC 375.

WMS 378 Media Illusions: Creations of "The Disabled" Identity (3)
Provides a critical analysis of past and present media constructions of persons with disabilities. Through exploring theory and research from diverse disciplines (communication, sociology, gerontology, educational psychology and others), students explore how perceptions of persons with disability are formed and analyze how the media is implicated in creating, distorting, and reflecting stereotypical and fictionalized images of disability. The course analyzes how these images shape public perception and reproduce the unequal power and privilege relationships that maintain the status quo while providing resources and techniques for the provision of alternative images of disability in various media genres. Cross-listed with DST/COM/EDP/SOC 378.

WMS 381 Women in Pre-Industrial Europe (3) MPT
Survey of the history of women's lives and roles in Western society from the beginning of the Middle Ages to the eve of the Industrial Revolution. Emphasis on determining women's experiences and actual roles as compared to the cultural and legal image presented and on examining effects of historical trends on women's lives. Cross-listed with HST 381. Offered infrequently.

WMS 382 Women in American History (3) MPT
Survey of the history of women's lives and roles in American society from colonial period to present. Emphasis on examining women's individual and collective roles in private and public spheres and on exploring how specific economic and political transformations have affected women's lives. Cross-listed with AMS and HST 382.

WMS 401 The Role of Women in a Transforming Society (3) MPC
Review of current and historically significant feminist writings on the ways in which patriarchal structures of authority affect what students know about women's experiences. Students position themselves as creators of knowledge about women's experiences and as members of self-critical communities of activists who are transforming society and women's positions in that society. Includes readings, discussions, and individual and group projects. Students learn to celebrate similarities in experiences and perspectives, and to understand and appreciate differences. Prerequisite: WMS 201 and at least 12 semester hours in WMS courses, or permission of instructor.

WMS 402 Engaged Learning Practicum (1-6)
This course connects feminist theory and practice, and is designed around service learning at a practicum site. The readings explore leadership, feminist grassroots organizing, service learning and civic engagement, feminist activism, and difference and cultural competence. Students will have the opportunity to translate the knowledge, skills, and critical thinking they have learned in the classroom to actual practice, to observe and work with professionals who are addressing women's/gender issues in the field, and to reflect on their own roles as future leaders and professionals. Prerequisites: WMS 201 or WMS 202 or WMS 301.

WMS 406 Indigenous Peoples and Their Sacred Lands (3)
An in depth look at topics related to policy and land management practices that impact indigenous peoples nationally, as well as internationally. The major focus of the various case studies is on designated sacred lands of Native American tribes within the United States. The course provides students with interdisciplinary training about indigenous cultures and human rights. Cross-listed with GEO 406.

WMS 410A Black Feminist Theory (3)
Examines black feminist theory from a variety of perspectives. Samples diversity of texts by theorists in the U.S. and the African Diaspora. Readings include both well known and lesser known thinkers/scholars as well as classic texts and newly published works. Cross-listed with WMS 410A and ENG 470A.

WMS 432 Feminism and the Diaspora: U.S. Women of Color (3)
Concerns issues of language, history, geography, social-psychology, and culture for U.S. women of color (black, Asian-American, Latina, American Indian, and others). Includes works by and about women on gender, ethnicity, class, sexuality, and other differences. Cross-listed with BWS/ENG.

WMS 435/535 Queer Theory (3)
Analysis of how gender and sexuality have informed our understandings of cultural texts and contexts. Emphasizes how discourses of gender and sexuality function within a variety of historical, cultural, and/or aesthetic traditions. Cross-listed with ENG 435/535.

WMS 436/536 Women, Gender and the Environment (3)
Seminar discussing literature on the role of women in their relationships with natural resources as advocates, practitioners, and scholars. Ideas on ecofeminism will be introduced from more-developed "north" and developing "south" perspectives, and then directed toward the study of gender and development, and participatory tools in gender analysis.

WMS 437 Black Feminist Theory (3)
Examines critical and theoretical issues in black feminism from slavery to the present. One of the central goals of the course is to interrogate race, gender, class, and sexuality in the context of black women's thoughts and experiences. The class will read, discuss and analyze a wide variety of texts including critical essays, films, selected fiction, print and visual media. Cross-listed with BWS/WMS 437.

WMS 450/550 Topics in Women's History (3; maximum 12) MPT
In-depth study of a selected topic in the history of women, focusing on either a specific period and place, or a theme. Cross-listed with HST 450/550.

WMS 451/551 Family Violence (3)
Analysis of research and theory on family violence, including physical abuse of children, sexual abuse, neglect, premarital abuse, wife abuse, gay/lesbian battering, elder abuse, prevention, and intervention. Basic framework is ecological/feminist, emphasizing an examination of family dynamics as well as broader historical, social, and patriarchal contexts. Cross-listed with FSW or SOC.

WMS 463/563 Gender and Aging (3) MPT
Examination of how gender constructions shape the aging process, with particular focus on how various social, psychological, physical, and cultural factors affect men, women, and transgendered persons differently as they grow older. Cross-listed with GTY and SOC. Prerequisite: (463) GTY 154; (563) GTY 602 or permission of instructor.

WMS 468 Gender and Genre (3) MPT
Includes a variety of areas within the disciplines of English and American literary and linguistic studies. Subject material varies with instructor's area of expertise, but focus is on the relation between gender and genre in the reading and/or writing process. Cross-listed with ENG 468. Offered infrequently.

WMS 470 Senior Thesis in Women's Studies (3-4)
Focuses on the production of the senior thesis. Senior theses may report the results of original research, critical analysis, activist work and/or creation of art, music, performance, fiction, or other forms. Periodic meetings provide a forum to discuss progress and problems, share with peers the process of framing and implementing a project, research, and writing, and practice presenting results. The course culminates in a public presentation of results. Prerequisite: Senior capstone in WMS (WMS 401 or WMS 370E)

WMS 475/575 Women, Gender Relations, and Sport (3)
Explores the meanings of women's participation in sport and physical activity using sociological, feminist, and cultural studies perspectives. Special consideration given to the ideological significance of sport in U.S. culture and ways in which sporting women accept and challenge contemporary gender relations. Cross-listed with KNH. Prerequisite: junior or graduate standing.

WMS 601 Introduction To Graduate Women's Studies (3)
A seminar that focuses on Women's Studies as an academic project and a force for social change in the U.S., tracing its historical development and identifying some of its central issues. Readings, discussion, and assignments help students understand the impact of Women's Studies upon academia and upon their own lives.

WMS 602 Feminist Theory & Methodology (3)
A seminar that investigates major research methods (empirical studies, case studies, ethnographies, rhetorical analyses, textual and historical studies) as they are theorized and practiced within contemporary feminism. As an interdisciplinary project, feminist academic research includes work from psychology, sociology, literary studies, languages, the arts, anthropology, philosophy, education, mathematics, political science and law, and the sciences. This seminar highlights the ways in which research methodology and theorizing are informed by feminist analyses of institutional power, social difference, and position of the researcher.

ZOOLOGY COURSES (ZOO-Arts and Science)

Note: Unless specifically noted in a course description, the following describes the Zoology course numbering system:

100-level: ordinarily taken at introductory level, with no prerequisite.

200-level: prerequisite is six semester hours of college biological science; in addition, certain course prerequisites may be stated. Ordinarily taken by sophomores.
300-level: prerequisite is six semester hours of biological science; specific course prerequisites may be stated for some courses.
400/500 level: either undergraduate or graduate credit may be earned. Prerequisite is 18 semester hours of biological science; other courses may be specified as prerequisites as well.

Note: Only three credit hours of research or internship apply toward advanced hour requirement in zoology. All zoology courses satisfy the CAS-D biological science requirement. Laboratory courses are noted at the end of each description.

ZOO 102 Introduction to Research in Biology (1)
Designed to meet the following goals: 1) To provide an introduction to research in the general areas of cell, molecular and structural biology (CMSB). (2) To appreciate the overall research theme of signaling mechanisms and cellular responses. (How cells respond to their environment by regulation of gene expression, cellular physiology, cell and tissue morphogenesis, as well as behavior). (3) To convey the significance and relevance of research being conducted in individual research labs. (4) To learn about research based careers in the biological sciences. Cross-listed with BOT/CHM/MBI.

ZOO 103 Introduction to Research in Biology (Lab Rotations) (2)
Designed to complement the seminar course (102) which provides an introduction to research in the general areas of cell, molecular and structural biology (CMSB). Students will have the opportunity to conduct two 8 week laboratory rotations and become involved in ongoing research projects. Through laboratory experiences, students will become familiar with skills essential for laboratory research, and become aware of routinely used tools and techniques. Cross-listed with BOT/CHM/MBI. Prerequisite(s): BOT/CHM/MBI/ZOO 102.

ZOO 113 Animal Diversity (4) MPF, MPT
Diversity of animal life examined in context of origin, evolutionary history, integration, sensitivity to perturbation, and interactions with humans. Assignments encourage students to synthesize previous laboratory experiences, explore current issues, or investigate an organism of special interest. Successful completion of laboratory required. (Offered only at Hamilton and Middletown campuses.) 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

ZOO 114 Principles of Biology (4) MPF, MPT
Examines basic biological concepts of cell theory, inheritance, and physiology. Prepares students for advanced study in biology and serves as a good overview for other students. (Offered only at Hamilton and Middletown campuses.) 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

ZOO 114H Animal Diversity Honors Seminar (1)
Seminar for departmental honors program students. Particular topics in zoology explored beyond the introductory level. Seminar format is variable, but usually includes faculty lectures and visits to zoology laboratory facilities; term papers and oral presentations may be required. Prerequisite: concurrent registration or prior completion of ZOO 113, 115 or 114, 116 and permission of instructor.

ZOO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) MPF, MPT
Integrated study of microbes, plants, and animals emphasizing biological diversity and interdependence of life and environment. Cross-listed with BOT and MBI 115. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

ZOO 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (4) MPF, MPT
Biological principles common to microbes, plants, and animals. Cross-listed with BOT and MBI 116. 3 Lec.1 Lab. IVA, LAB. CAS-D/LAB.

ZOO 121 Environmental Biology (3) MPF, MPT
Local, regional, and global environmental issues examined in the context of current ecological theory and principles of resource use and management. Weekly discussion period provides opportunity for interaction. Zoology majors may not enroll in this course. IVA. CAS-D.

ZOO 161 Human Physiology (4) MPF
Examines physiological systems of the human body. Lecture provides basic information regarding function of these systems from an integrative perspective. In laboratory, use hands-on approach and work in small groups to conduct experiments and/or carry out

projects to illustrate the physiological concepts presented in lecture. Zoology majors may not enroll in this course. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

ZOO 171 Human Anatomy and Physiology (4) MPF
Study of the structure and function of the human body including basic cellular principles, embryology, reproductive system, endocrine system, and nervous system. Does not count toward a zoology major. (Offered at Hamilton and Middletown campuses.) 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

ZOO 172 Human Anatomy and Physiology (4)
Study of the structure and function of the human body including respiratory, digestive, urinary, skeletal, muscular, and circulatory systems. Does not count toward a zoology major. (Offered at Hamilton and Middletown campuses.) Prerequisite: ZOO 171. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 175 Environmental Science Seminar (1)
Introduces students to the multidisciplinary nature of environmental science and the solution of environmental problems. Cross-listed with BOT/CHM/GEO/GLG/ MBI/MTH/STA 175.

ZOO 201 Comparative Anatomy of Vertebrates (4)
Anatomy of typical vertebrates. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 203 Introduction to Cell Biology (3) MPT
Introductory study of eukaryotic cell structure and function. Prerequisite: ZOO 114 or 116.

ZOO 206 Evolutionary Biology (3) MPT
Development of major evolutionary concepts and application of such concepts within the biological sciences and related scientific fields are examined. Prerequisite: one year of biological science.

ZOO 207 Writing Scientific Proposals (1)
This one credit hour seminar/discussion course will provide the opportunity for students to develop a research proposal and/or develop a manuscript for publication and/or a poster presentation. The overall goal of this course is to help students learn to write effectively in the field of cell, molecular and structural biology. Writing exercises will take the form of assignments that require the student to develop successive sections of the research proposal or other writing project until it is complete. Students will learn to (a) identify the attributes of a well written proposal, paper or poster, (b) search and cite appropriate, relevant literature (c) develop an awareness of plagiarism and ethics in science writing, (d) understand the role of constructive, critical feedback and editing and revising their writing. Cross-listed with BOT/CHM/MBI 207.

ZOO 209 Fundamentals of Ecology (3) MPT
Interrelationships between organisms and their environments. Prerequisite(s): one course in the biological sciences (BOT, MBI, or ZOO) or permission of the instructor. Cross-listed with BOT 209.

ZOO 232 Human Heredity (3) MPT
Introduction to the basic principles of genetics and their relevance to human society. Zoology majors may not enroll in this course. Prerequisite(s): Completion of a minimum of six semester hours of biological sciences, which must include one of the following: ZOO 114, BOT/MBI/ZOO 116, ZOO 172 or MBI 161. (Offered at Hamilton campus).

ZOO 275 Principles of Environmental Science (3)
Introduction to the principles and methodologies of environmental science. Topics include contamination of earth systems and pollution mitigation; use, abuse and conservation of natural resources; land use, conservation and preservation, planning and management and the value of biodiversity and wilderness. Emphasis is on the multidisciplinary nature of environmental problems and their solutions. Prerequisites: At least one course from each of the following three categories is either pre- or co-requisite: 1) B/M/Z 115 or BOT 191 or ZOO 113; 2) CHM 111 or CHM 142/5; and 3) GLG 111/115 or 121/115 or 141/115 or GEO 121. Cross-listed with BOT/CHM/GEO/GLG/MBI/STA 275.

ZOO 305 Animal Physiology (4) MPT
Study of general physiological principles necessary for basic understanding of life processes. Prerequisite: one year of chemistry, junior standing, and at least one 200-level zoology course, or permission of instructor. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 311 Vertebrate Zoology (4) MPT
Taxonomy and life histories with emphasis on local fauna. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 312 Invertebrate Zoology (4) MPT
Morphology and taxonomy with emphasis on local fauna. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 320 Directed Research in Zoology (1-3)
Problems involving library, field, or laboratory work. Only three semester hours of ZOO 320 can be used to fulfill advanced hour requirement.

ZOO 325 Pathophysiology (4) MPT
Study of relationship between normal body functioning and physiologic changes that occur as the result of illness. Zoology majors may not enroll in this course. Prerequisite: ZOO 172 or equivalent.

ZOO 328 Functional Microanatomy (4)
Microscopic anatomy of structural and functional components of animal tissue. Laboratory emphasizes viewing various tissues and organ systems using the light microscope. Lectures correlate structure with function of these tissues. Prerequisite: ZOO 305. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 333 Field Ecology (2)
Experience in collection, analysis, and interpretation of ecological data. Prerequisite: BOT/ZOO 209. Cross-listed with BOT/MBI 333. 1 Lec. 1 Lab. CAS-D/LAB.

ZOO 340 Internship (1-20)
Credit/no-credit only. Supplements the basic requirements for a zoology major by providing credit for practical work experience. Experiences may include, but are not limited to, positions with research laboratories, consulting firms, zoos, museums, industrial laboratories, and government agencies. Total semester hours of ZOO 340 and/or 277, 377, 419R, 477, or 320 used to fulfill advanced hour requirement cannot exceed three. Prerequisite: internship agreement with zoology faculty and sophomore standing with at least seven hours in zoology.

ZOO 342 Genetics (3) MPT
Introduction to basic principles of genetic organization, function, and inheritance. Prerequisite: one year of chemistry, junior standing, and at least one 200-level zoology course, or permission of instructor. Cross-listed with BOT 342.

ZOO 351 Environmental Education: Focus on Natural History (4)
Introduction to the field of environmental education emphasizing the natural history and interpretation of the forests, prairies, and wetlands of southwestern Ohio. Cross-listed with BOT 351. Prerequisite: ZOO/BOT/MBI 115. 2 Lec. 1 Lab.

ZOO 361 Patterns in Development (4)
Cellular, molecular and genetic analysis of developmental processes by which a single celled zygote is transformed into a multi-cellular organism, comparative analyses of the mechanisms across animals, and an understanding of classical and modern experimental approaches in Developmental Biology. Prerequisite: ZOO 203 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 370 Issues in Medicine (3)
This course is a discussion-based seminar focusing on issues and value conflicts facing physicians in contemporary health care environments. Emphasizes real-life situations and cases and will have eight practicing doctors in fields ranging from surgery to psychiatry as participants. The course makes extensive use of new medical information technology. Prerequisites (s): B/M/Z 115 and 116; CHM 241 and 242, and permission of the instructor. This course does not count toward a Zoology major.

ZOO 395 Primate Biology and Behavior (3)
Taxonomic survey of the primate order including anatomy, distribution, adaptation, and morphological characteristics of various taxa. Selected primatological topics including primate conservation, reproduction and development, manipulation, and tool use. Prerequisite: ATH 255 or ZOO 206; junior or senior status; or permission of instructor. Cross-listed with ATH 395.

ZOO 400 Capstone Seminar: Contemporary Issues in Zoology (3) MPC
Requires seniors to critically evaluate and form positions on current biological issues of national interest. Format, theme, and topics change from term to term. Examples of themes include the management and use of natural resources, preservation of biological diversity, nature of the medical profession, and issues raised by advances in biotechnology. Faculty as well as other recognized authorities participate.

ZOO 401/501 General Entomology (4)
Introductory study of insects. Prerequisite: ZOO 115 or 312 or equivalent. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 403/503 Biology of Dinosaurs (4)
Introduction to the evolution, diversity, ecology, physiology, and behavior of dinosaurs and other Mesozoic organisms, with a consideration of the history of their discovery and study. The laboratory and museum field trip will emphasize the use of dinosaurs for teaching biological concepts. Prerequisite: teaching certification or 18 semester hours of biological science or permission of instructor.

ZOO 405/505 Parasitology (4)
Principles of host-parasite interactions with an emphasis on the physiology, ecology, and evolution of protozoan, nematode, and flatworm parasites. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 407/507 Ichthyology (4)
General biology of fishes: their systematics and taxonomy, anatomy, systemic physiology, ecology, zoogeography, and management. Laboratory includes methods of collection and identification; studies of selected structural, functional, and behavioral attributes of fishes; and four field trips. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 408/508 Ornithology (4)
General biological principles of birds, their classification, evolution, adaptations, ecology, behavior, and relationship to humans. Prerequisite: two advanced courses in biological sciences or permission of instructor. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 409/509 Herpetology (4)
Classification, speciation, morphological adaptations, mode of life, history, and ecology of amphibians and reptiles; emphasis on recent advances in the field. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 419R Independent Research Capstone (3) MPC
Provides students with an in-depth research experience. Requires that students understand scientific literature in a specific area, develop a research proposal, perform research, write a summary report, and orally present the research findings. Prerequisite: permission of instructor and department chair or chair designate.

ZOO 422/522 Evolution and Biosystematics (3)
Detailed examination of evolutionary and biosystematic concepts that have promoted advances in understanding the origins, structure, function, behavior, and distribution of present-day organisms and taxa. Prerequisite: ZOO 342 or equivalent. Offered infrequently.

ZOO 424/524 Biological Instrumentation (4)
Theory and application of modern biological instrumentation and techniques. Basic and advanced skills including use, maintenance and calibration of biological instruments. Prerequisites: BOT/MBI/ZOO 115 or BOT/MBI/ZOO 116 or BOT 191 or MBI 201 or MBI 202 or ZOO 113 or ZOO 114 or equivalent, CHM 141 and CHM 142 or equivalent, or permission of instructor. Cross-listed with BOT/MBI/CHM. Offered fall semester of even years.

ZOO 431/531 Winter Biology (3) MPC
Study of adaptations for survival and life in the winter environment with particular emphasis on effects of ice, snow, and low temperature. Prerequisite: ZOO 305 or equivalent or permission of instructor.

ZOO 432/532 Zoology Field Study & Research (1-12)
Independent study involving individually-designed research on the field zoology of a specific geographic area or organism. Prerequisite: 12 hours of Biology at the 200-level or above and junior, senior, or graduate standing.

ZOO 437/537 Field Methods in Population Ecology (1)
A course designed to introduce field and lab methods used to sample plant and animal populations and quantify interspecific competition. Prerequisite: a course in ecology. Cross-listed with BOT 437/537. Offered odd year Fall semesters.

ZOO 442/542 Mechanisms of Animal Development (3)
Analysis of problems in animal development, including gametogenesis, cell lineage, organogenesis, cell proliferation, and pattern formation. Prerequisite: ZOO 361 and 342, or equivalent. Offered infrequently.

ZOO 443/543 Molecular Cell Biology (3)
Microscopic structure, chemical composition, and function of cytoplasmic and nuclear components of animal, plant, and bacterial cells. Prerequisites: ZOO 203, ZOO 342 and organic chemistry.

ZOO 444/544 Molecular Biology (3) MPC
Emphasis on molecular biology of the gene and the molecular basis of gene action. Prerequisite: organic or physical chemistry and ZOO 342 or equivalent.

ZOO 449/549 Biology of Cancer (3)
Study of cancer in animals at the molecular, cellular, and physiological levels. Causes, development, and treatment of cancer are examined as well as the characteristics of the 10 most common cancers in humans. Prerequisite: ZOO 203 or 443/543, 342, and organic chemistry.

ZOO 452/552 Nerve and Muscle Physiology (4) MPC
Study of nervous, muscular, and circulatory systems in a diversity of organisms (vertebrates and invertebrates). Experience with experimental techniques used to study these systems. Prerequisite: ZOO 305 or 203 or 342, CHM 242 or 332, or permission of instructor. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 453/553 Animal Physiological Ecology (4) MPC
Study of physiological and behavioral adaptations of organisms. Topics include discussions of flying, diving, and swimming adaptations as well as consideration of specific environments such as deserts, caves, and estuaries. Prerequisite: ZOO 204, 305, or equivalent, and permission of instructor. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 454/554 Endocrinology (3) MPC
Study of the role of chemical messengers and hormones from endocrine and neural origin, in control of physiological processes. Includes review and discussion of current techniques and methodologies in the literature. Prerequisite: ZOO 305 and CHM 241. CAS-D/LAB.

ZOO 455/555 Endocrine Methodology (1)
Students learn techniques in endocrine and neuroendocrine research; analyze and present experimental results; and gain experience reviewing the primary literature. Concurrent course: ZOO 454/554.

ZOO 456/556 Cardiopulmonary Physiology (4)
Physiology of cardiovascular and pulmonary systems in normal state, and some examples of abnormal states that illustrate control mechanisms. Integration of these two systems together and with other systems. Prerequisite: ZOO 305. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 457/557 Neuroanatomy (3)
Study of structural and functional organization of the mammalian central nervous system. Emphasis on organization of and current methodologies used in study of major neuroanatomical pathways and neurotransmitters of mammalian brain and spinal cord. Includes computer-assisted imaging of brain structures and methods of data analysis. Prerequisite: ZOO 305. CAS-D.

ZOO 458/558 Neuroanatomical Methods (1)
Students review basic brain anatomy and review techniques in neuroanatomical research. Students gain experience in data collection and analysis and neuroimaging methods. Concurrent course: ZOO 457 for ZOO 458; none for ZOO 558.

ZOO 459/559 Methods in Neurophysiology (1)
Application of basic techniques in neurophysiological research. Includes collection, analysis, interpretation and presentation of experimental results and review of the primary literature. Prerequisites: ZOO 459: ZOO 305; ZOO 559: Graduate standing.

ZOO 460/560 Principles of Animal Surgery (2)
Rationale, regulation, and techniques of animal use and surgery in research settings. Orientation for the use of any mammalian species in research. Undergraduates complete one protocol approval form using a *Lab Animal Science* article. Graduate students complete three written evaluations or critiques of animal proposals and articles. 1 Lec.

ZOO 462/562 Environmental Toxicology and Risk Assessment (4) MPC
Applied study of toxicology from the molecular to the ecosystem level of organization. Materials presented in the context of toxicology as an interdisciplinary, problem-solving science utilizing the principles of ecological risk assessment. Three hours of lecture and one hour of student-led discussion per week. Prerequisite: ZOO 204 and 305, or equivalent, and a year of organic chemistry or permission of instructor.

ZOO 463/563 Limnology (4) MPT
Physical, chemical, and biological characteristics of freshwater ecosystems. Prerequisite: ZOO 204 or equivalent, a year of chemistry, or permission of instructor. 3 Lec. 1 Lab. CAS-D/LAB.

ZOO 464/564 Laboratory in Cell and Molecular Biology (3)
An in-depth, hands-on laboratory experience that supplements any of the 400 level cell, developmental, genetic, or molecular biology courses in zoology. Emphasis is on techniques used in modern cell and molecular biology. Prerequisites: Credit for or concurrent

enrollment in ZOO 442/542, ZOO 443/543, ZOO 444/544, ZOO 449/549 or permission of instructor.

ZOO 465/565 Animal Behavior (4) MPC
Evolutionary approach to the study of animal behavior with emphasis upon the description, measurement, and interpretation of behavior of animals. Emphasizes a problem-solving approach to help students understand how and why behavior influences the ways in which animals live and reproduce. Emphasizes examination of behavior using a combination of lectures, discussions, and laboratory experiences. Students gain experience in evaluating published scientific research as well as data gathered in lab exercises and an independent research project. Prerequisite: nine hours of advanced courses in biological science and a course in statistics or permission of instructor. 2 Lec. 2 Lab. CAS-D/LAB.

ZOO 466/566 Bioinformatics Computing Skills (3)
Programming in Perl and MatLab. Use of BLAST, BioPerl, BioPHP, and MatLab Bioinformatics Toolbox. Emphasis placed on biological database design, implementation, management, and analysis. Prerequisite(s): Programming course and BOT 116, or BOT 342, or permission of instructor. Cross-listed with BOT/CSE/MBI 466/566.

ZOO 467/567 Conservation Biology (3) MPC
Principles of ecology and organismal biology applicable to conservation of uncommon plant and animal populations or ecosystems as related to anthropogenic influences and relevant legislation. Prerequisites: An introductory course in biology and BOT/ZOO 209 or BOT 401 or equivalent. Cross-listed with BOT 467/567.

ZOO 469/569 Neurophysiology (3)
Study of the physiology of the central nervous system with emphasis on the cellular and molecular basis of signal transmission in the brain. Includes a review of current techniques and topics in the literature. Prerequisites: ZOO 305 or equivalent. Concurrent course: ZOO 459.

ZOO 471/571 Molecular Physiology (3)
Emphasis on how modern biological techniques are applied to the understanding of molecular physiology in both the normal and abnormal disease states. Specific topics will be complemented with current literature to illustrate investigations into physiology at the cellular and molecular level. Prerequisites: ZOO 305 and a 200-level (or higher) course in molecular/cell biology.

ZOO 481/581 Theory of Electron Microscopy (2)
Principles and theory of scanning and transmission electron microscopy and advanced microscopies. Cross-listed with BOT 481/581. Offered every Fall semester.

ZOO 482/582 Scanning Electron Microscopy Laboratory (2)
Practical course providing training in scanning electron microscopy (SEM). Sample preparation, SEM operation, darkroom work, manuscript preparation, and an individual research project. Cross-listed with BOT 482/582. Prerequisite or co-requisite: BOT/ZOO 481/581 and permission of instructor. Offered every fall semester.

ZOO 483/583 Transmission Electron Microscopy Laboratory (2)
Practical course in transmission electron microscopy: specimen preparation microscope usage, data collection, and photographic plate preparation. Prerequisite or co-requisite: BOT/ZOO 481/581 and permission of instructor. Cross-listed with BOT 483/583. Offered every spring semester.

ZOO 485/585 Bioinformatic Principles (3)
Introduces the fundamental concepts and basic computational techniques for several mainstream bioinformatics problems. Emphasis placed on applications of bioinformatics tools as well as how to transform a biological problem into a computable one. Highlights computer usage, so demonstration of computer expertise is required, but programming experience is not. Prerequisite(s): Any one of these courses: BOT/MBI/ZOO 116, MBI 201, BOT/ZOO 342, CHM 332, CHM 433; or permission of instructor. Cross-listed BOT/MBI 485/585.

ZOO 491/492 Seminar in Zoology (1,1)
Review and discussion of topics in zoology. Prerequisite: senior zoology major or permission of instructor.

ZOO 494 Sustainability Perspectives in Resources and Business (3) MPC
Addresses the need for interdisciplinary understanding of the pattern of declining quantities of critical resources and growing public awareness of environmental degradation, an understanding of relevant ecosystems, social and economic institutions and policy, and the prospects for the business community to facilitate resolution of these concerns. Three alternative prerequisites: (A) senior standing as a business major and one of BOT 131 or GLG 121 or ZOO 121; or (B) senior standing as a science major and ECO 201 and 202; or (C) senior standing and completion of Thematic Sequence ECO 5 Sustainable Systems. Cross-listed with BUS, BOT, GEO, and GLG 494.

ZOO 497/597 Socio-Ecology of Primates (3)
Ethology and ecology of living prosimians, monkeys, and apes, from comparative and evolutionary perspectives, emphasizing field studies of natural populations. Prerequisite: junior or senior status; nine advanced hours in ZOO; for others, permission of instructor. Cross-listed with ATH 497/597.

ZOO 498/598 Evolution of Human Behavior (3) MPC
Ethology and ecology of Homo sapiens, from comparative and evolutionary perspectives, drawing on primatology, paleoanthropology, and sociocultural studies of traditional societies. Prerequisite: junior or senior status; nine advanced hours of ZOO; permission of instructor. Cross-listed with ATH 498/598.

ZOO 601 Seminar for Zoology Graduate Students (1)
Introduction to methods of searching literature, preparation of audiovisual materials, preparation of grant applications and manuscripts, good teaching practices, and other aspects of the profession. Seminar for beginning graduate students in zoology.

ZOO 605 Advanced Molecular Biology (3)
In-depth study of genome organization, rearrangement, replication, and expression in prokaryotic and eukaryotic cells and their viruses, with an emphasis on regulatory mechanisms. Prerequisite: graduate status, a course in molecular genetics, biochemistry, or cell biology, and permission of instructor. Cross-listed with MBI 605 and BOT 605. Offered even year Fall semesters.

ZOO 606 Advanced Cell Biology (3)
Advanced level study of molecular basis of prokaryotic and eukaryotic cell structure/function relationships. Prerequisite: graduate status, course in molecular genetics, cell biology, or biochemistry, and permission of instructor. Cross-listed with MBI 606 and BOT 606. Offered even year Spring semesters.

ZOO 608 Biological Diversity (3)
Provides an introduction to the diversity and function of microorganisms, plants and animals for elementary and middle school teachers. Prerequisite: Permission of instructor.

ZOO 620 Graduate Research (1-12; maximum 14)
Research or special problems in zoology.

ZOO 621 Problems in Zoology II (1-12)
Continuation of research or special problems for graduate students during summer sessions.

ZOO 630B Alpine Biology for Teachers (3)
This course follows GLG 699, Field Geology for Teachers. Plant and animal communities in northwestern Wyoming studied by lectures, field trips and lab study in an intensive two-week program at Timberline Ranch near Dubois, Wyoming. Prerequisite: GLG 699. Offered infrequently; summer only.

ZOO 630C Field Entomology for Teachers (3)
Introduction to the biology and diversity of insects and related arthropods. Emphasis on methods of field study and the use of insects for teaching biological concepts. Prerequisite: teaching licensure or permission of instructor. Summer only.

ZOO 630D Vertebrate Zoology for Teachers (4)
Identification, taxonomy, and life histories of vertebrate animals with emphasis on local fauna. Summer only.

ZOO 630E Invertebrate Zoology for Teachers (4)
Identification, taxonomy, and life histories of invertebrate animals with emphasis on local fauna.

ZOO 630G Evolution for Biology Teachers (3)
Emphasis is on Darwin and the origin of the species, evidence for evolution, creationist arguments, biology of speciation and related social issues. Prerequisites: Teaching certification or permission of instructor.

ZOO 640 Mechanisms in Neurobiology (3)
Studies of the molecular mechanisms of action in the nervous system with a strong emphasis on current methodologies employed in the field. Prerequisite: Undergraduate degree in the biological sciences or psychology with physiology background (ZOO 305 or equivalent) or permission of instructor. Cross-listed with PSY 640.

ZOO 649 Zoological Analytical Techniques (4)
Fundamental principles and techniques in the experimentation with and analysis of biologically important compounds. Prerequisite: permission of instructor. Offered infrequently. 1 Lec. 3 Lab.

ZOO 650 Seminar in Molecular Biology (1)
Discussion of current literature in molecular biology. Prerequisite: graduate standing. Cross-listed with BOT, CHM and MBI 650. Offered every semester.

ZOO 671 Population and Community Ecology (4)
Principles and applications of population and community ecology: population dynamics, direct and indirect species interactions, food webs, and species diversity. Prerequisites: At least one course in general ecology. A course in calculus is recommended. Cross-listed with BOT/MBI 671.

ZOO 672 Ecosystem and Global Ecology (4)
Structure, dynamics and management of ecosystems and the biosphere, including food web interactions, nutrient cycling, ecosystem functioning, and biogeochemical cycles at local, regional and global scales. Prerequisites: at least one course in general ecology and general chemistry. Cross-listed with MBI 672 and BOT 672. Offered every spring semester.

ZOO 689 Pedagogy in Zoology for Graduate Students (1) (Credit/no-credit only.)
Introduction to teaching zoology for new graduate students. Role of the graduate teaching assistant, teaching methodology and good teaching practices are covered. Prerequisite: acceptance into the department graduate program. Summer only.

ZOO 698H Using Animals in the Classroom (2)
Provides instruction on how to maintain and use animals to illustrate diverse physiological, behavioral, and ecological principles in the classroom. Prerequisite: permission of instructor.

ZOO 700 Research for Master's Thesis (1-12; maximum 12)
Research in zoology for those who successfully defend their master's thesis proposal. Prerequisite: Undergraduate biological science major and related scientific subjects.

ZOO 710 Advanced Seminar (1; maximum 4)
Discussion of current problems and literature.

ZOO 720 Doctoral Research (1-12; maximum 14)
Research performed by doctoral student prior to successful completion of doctoral comprehensive examination.

ZOO 721 Graduate Research II (1-12)
Continuation of research or special problems requiring expertise equivalent to thesis research during summer sessions.

Note: The following courses accommodate professional growth of advanced graduate students. The primary function is to keep students updated within their areas of research specialization. Prerequisite: permission of instructor.

ZOO 730 Current Topics in Ecology and Systematics (1-3; maximum 18)

ZOO 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60 depending on departmental requirements)
Research performed by doctoral student after successful completion of doctoral comprehensive examination.

Awards, Scholarships, and Prizes

These are presented to outstanding students who earn special recognition. Contact the department or organization for current information.

Accountancy
Albers Accountancy Scholarship to undergraduate and minority students
Andersen Alumni Accounting Scholarship to seniors and graduate students
Arthur H. Carter Scholarship to undergraduate and graduate students
Battelle & Battelle Scholarship to undergraduate students
Dr. Gyan Chandra Memorial Scholarship to an undergraduateaccountancy student
Crowe, Horwath Scholarship to an undergraduate accountancy student
Deloitte & Touche Donald M. Lutz Memorial Scholarship to a junior
Deloitte & Touche Maureen R. Mushat Memorial Scholarship to a junior
Ernst & Young Accountancy Scholarship for minority students
Ernst & Young Accountancy Scholarships to undergraduate students
Ernst & Young Master of Accountancy Scholarships to graduate students
Rolland L. Ewell Accountancy Scholarship to graduate students
Grant Thornton LLP Acccountancy Scholarship to a junior
Harold W. Jasper Scholarship to a graduate student
KPMG Accountancy Scholarship to graduate students
Daniel Leshner Beta Alpha Psi Award to an outstanding *Beta Alpha Psi* mentor
Harry C. Lyle Scholarship to an accountancy major
Marathon Oil Scholarships to undergraduate students
Ogden Excellence in Accounting Award to a junior
Joseph and Esther Paperman Memorial Scholarship to a senior
PricewaterhouseCoopers Accountancy Scholarship to a junior, seniors, a minority student, and a graduate student
PricewaterhouseCoopersKellyBooms Memorial Scholarship to a senior
Protiviti Scholarship in Accounting to a sophomore
Rankin Accountancy Scholarship to a graduate student
William H. Schaefer Scholarship to graduate students
C. Roger Stegmaier Accountancy Award to an undergraduate student
William D. Stiles/Deloitte & Touche Memorial Scholarships to junior, senior, and graduate students
William R. and Irene R. Vogel Memorial Scholarship to a graduate student
E. Ben Yager Scholarship to an undergraduate student

Anthropology
Rebecca Jeanne Andrew Memorial Award
Carol E. Kist Student Award

Architecture
The Alpha Rho Chi Medal
The American Institute of Architects Henry Adams Medal
The American Institute of Architects Certificate of Merit
The Department of Architecture Scholastic Achievement Award
Barcus Technology Scholarship
Mildred Zurbrick Bishop Scholarship
Chicago Area Architects Scholarship
Sterling Cook Scholarship Award
Fanning and Howey Presidential Scholarship
Rudolph Frankel Memorial Award
Sanford B. Friedman Scholarship
The Howard E. Gartner Architecture Scholarship
Herb Hodgman Scholarship
Warren & Nancy Howard Memorial Scholarship
Frank N. Meilan Memorial Scholarship
The Walter C. Pfeiffer Architecture Scholarship
Potter/Maxfield/Wertz Architectural Design Award
Earl Reeder Scholarship in Architecture
Richard H. and Leila Hentzen Smith Scholarship
URS Consultants Scholarship
Fred C. Whitcomb Scholarship in Interior Design

Art
Gertrude Davidson Brill Art Scholarship
Button Gallery Art Award
Nancy Francis Cady Art Scholarship
Ceramics Award
Sterling Cook Scholarship Award
Arthur B. Damon Art Scholarship
Department of Art Scholarship
Walter Gross III Art Scholarship
Frances Hanson Christian Scholarship
Barbara Hershey Memorial Scholarship (photography)
Marston D. Hodgin Art Scholarship
George R. And Galen Glasgow Hoxie Scholarship (alternates with music)
Vincent Inconiglios Art Scholarship
Jim Killy Art Scholarship
Sinisa Lenac Graduate Studio Award
Miami University Scholarship
National Woodcarvers Association Scholarship
Fred & Molly Pye Memorial Scholarship
Mary M. Quay Scholarship
The Tara Savage Art Supplement Award
Richard H. and Leila Hentzen Smith Scholarship
Western College Art Scholarship
Robert Wolfe Printmaker's Award

Botany
William C. and Virginia Beck Scholarship to freshman majors that are Talawanda High School graduates
William C. and Virginia Beck Scholarship to junior or senior majors in environmental science
Arthur and Anna Evans Scholarship
Bruce Fink Scholarship to upper-class majors
Wallace J. Hagedorn Scholarship to undergraduate majors demonstrating both academic merit and financial need
Charley Harper Scholarship to biological science majors demonstrating talent (interest) in the arts
Charles Heimsch Graduate Award in Botany
Kimberly Lohmeier Ingersoll Scholarship to junior women majors
Marcia E. Buck Roll Scholarships to undergraduates
J. Fisher and Margaret Stanfield Scholarship to upper-class majors
William E. Wilson Award to majors

Business Technology
Angus Family Scholarship
Ohio Society of CPA's Miami Valley Chapter
A. Alberta Holden Memorial Scholarship
Verna Sommer Memorial Scholarship
Theodore & Kathleen Light Scholarship

Chemistry and Biochemistry
Analytical Chemistry Award
Harvey Clayton Brill Scholarship
John H. Buckingham Scholarships
William Hale Charch Scholarship
J.A. Coulter Scholarship
CRC Press Freshman Chemistry Achievement Award
Joseph A. Culler Chemistry Scholarship
R. Thomas Davidson Graduate Award in Chemistry
First-Year Chemistry Scholarship
Gervaise O. Frost Memorial Award
Elmer G. Gerwe Chemistry Scholarship
Graduate Teaching Assistant Award
David Hershey Memorial Scholarship

Anastas Karipides Memorial Scholarship
Lubrizol Chemistry Scholarships
Raymond and Vonna McBride Scholarships
Merck Index Award
J. Earl Pruden Scholarship
William Hartmann Schwarz Scholarship
Robert A. Stalzer Memorial Scholarship
Clyde E. and Alice W. Stiner Scholarship
Malcolm E. Switzer, M.D., Award
E. O. and B. V. Weidner Chemistry Scholarship
E. O. and B. V. Weidner Chemistry Graduate Scholarship
The 1809 Club Kreger Award

Classics
Bishop Prize in Latin, in honor of Robert H. Bishop II, by alumni
Bishop-Elliott Prize in Classical Humanities, in memory of Robert H. Bishop II, class of 1831, and Professor Charles Elliott
Elliott Prize in Greek, in memory of Professor Charles Elliott, by John B. Smith, class of 1858
Henry Montgomery Classics Scholarship
Henry Montgomery Travel Award
Marilyn Wade-Duff Scholarship

Computer Science and Software Engineering
Accenture Scholarship
ACM Outstanding Student Award to a senior, by Miami chapter, Association for Computing Machinery
Darrel and Wilma Grothen Scholarship
Ronald and Mary Ann Kral Scholarship
Eli Lilly Scholarship
Lawrence J. Prince Memorial to a junior
Procter & Gamble Scholarships

Decision Sciences and Management Information Systems
Academic Excellence certificates to a decision sciences minor and a management information systems minor
Roy Sandquist Family Department of Decision Sciences Awards to senior majors

Economics
T. Windsor Fields Award to a senior major with a strong interest in macro/monetary economics
*Gerald E. Flueckiger Award t*o a senior economics major with a strong interest in microeconomics
William McKinstry Award to a senior majoring in business economics
James E. Rees Memorial Scholarship Award to an undergraduate major who demonstrates need, leadership traits, initiative, and academic performance
Delbert A. Snider Award to a graduating senior in international economics
The George W. Thatcher Prize for Undergraduate Excellence in Economics to a senior economics major
Paul M. Vail Award to a senior economics major

English
The Robert Almy Awards in Critical Interpretation
Bachelor Bylines Award for best essay printed in *Bachelor Bylines*
Terry and Chris Baehr English Scholarship
Daniel and Margaret Bookwalter Sophomore Prizes in English, by William G. and Margaret Bookwalter Pickrel, classes of '10 and '11
The Nevin Clark Family Fund Capstone in English
Craver-Overton Scholarship
Dean's Scholarships to graduate assistants and associates whose records promise achievement in literary studies
The DuBois Bookstore Award for an essay in textual analysis
Follett-Miami Co-op Awards for best explanatory and persuasive essays (2 awards)
Freshman Poetry Prizes, by the Miami Co-op Bookstore
Carl R. Greer-Andrew D. Hepburn Senior Awards, in honor of Dr. Hepburn, bequest of Carl R. Greer, class of '94
Walter Havighurst Literary Prize
Carolyn W. Houtchens Scholarship, in honor of the first woman professor in the department, to a scholar and researcher in the first year of M.A. program in literature
Miami University Bookstore Award for an essay in critical analysis
Edward J. Montaine Jr. Awards in English, in honor of Mr. Montaine, class of '42, bequest of Carl R. Greer, class of '94
Outstanding Teacher Award to graduate assistants and associates
Oxford Copy Shop Award, for a reflective narrative essay
The Spiro Peterson Memorial Scholarship
Mary Jo Priest Awards in Technical and Scientific Communication
Malcolm Sedam Writing Award, Middletown campus
Sinclair Award in Creative Writing to the most promising new graduate student in the creative writing program
Sinclair Fellowships to graduate assistants and associates whose records promise achievement in literary studies
Gordon D. and Mary S. Wilson Awards for best graduate paper presented at a conference during the year and best published creative work

Family Studies and Social Work
Family Studies and Social Work Graduate Student Research Alumni Awards
Annitta Klipple Prize
Jane and Dessie Rees Graduate Student Award
Elizabeth Caughey Stegmaier Scholarship
Waldhauer Family Studies Scholarship
Fred Whitcomb Graduate Scholarship

Finance
Avery Dennison Finance Scholarship to an undergraduate finance major
J. Belden Dennison Award for scholastic achievement, by the department
Jeanette V. and George W. Olson Memorial Award to a junior major for personal character, interest, financial need, and enthusiasm in finance, cash award in junior year or for use in senior year
Joseph C. Pillion Memorial Scholarship to a junior major planning a career in insurance, for use in senior year

The School of Fine Arts
The School of Fine Arts Divisional Scholarship
Walter L. Gross Jr. Family Fine Arts Scholarship

French
Edgar Ewing Brandon Senior Prize in French
The Naomi Miller Cox Memorial Outstanding French Student Prize
The Charlotte Meyer Crawford Junior Scholarship
L.P. Irvin Award for Overseas Study
The W. Marion Miller Alumni Scholarship
The Cynthia Robinson First Memorial Scholarship
Laurence Harvey Skinner Junior Prize in French

Geography
Henry M. Kendall Award to an outstanding junior major
Richard G. Lieberman Memorial Award to an outstanding senior

Geology
James E. Bever/David M. Scotford Laboratory Research Fund awards in support of laboratory research
Wayne D. Martin Field Fund, awards for field travel and field research
Robert E. Radabaugh Memorial Scholarship to an upper-class major with financial need
H. Van der Veer Hilker Memorial Scholarship to a major for the senior year
Wells Scholarship to a student enrolled in GLG 411, for academic performance and need

History
Mary Eleanor Brandon Lincoln Essay Award
A. Dane Ellis Scholarship
Fred Joyner History Scholarship
Boyd & Carol Shafer Scholarship
James Watson and Lois George McDonald Scholarship

Italian
Amira Akrabawi Giesecke Scholarship
Peter N. Pedroni Summer Language Institute in Italy Fund
Joseph A. Russo Scholarship

Journalism
Emily Cordes Memorial Scholarship
The Michael Kelly Prize in Journalism
Lawler-Galeese Scholarship
Memorial Tournament Journalism Scholarship
Timothy J. Rogers Memorial Journalism Scholarship

Kinesiology and Health
Victoria L. Eby Memmel Scholarship to a KNH major from Southwest Ohio who demonstrates academic merit and qualified financial need.
Marjorie Hayes Sport Studies Scholarship to a junior or senior sport studies major with a minimum 3.0 g.p.a. Award recipient selected by sport studies faculty.
Bonnie Pickering Memorial Scholarship to a dietetics major who demonstrates academic merit and qualified financial need.
Virginia Guinn Pierson Memorial Award to a dietetics major based on academic merit and university and community service.
Maxine J. Schurtz Scholarship to a female KNH student.
WRA-Margaret Phillips Grant to two upper-class female KNH majors with qualified financial need in their sophomore, junior, or first semester senior year with a minimum 3.0 g.p.a. and involvement in campus activities.

Management
Academic Achievement in Management and Organizations Award to a senior
Academic Achievement in Supply Chain and Operations Management Award to a senior
Frederick Puff Scholarship to a junior
Harold F. Puff Award to a senior

Marketing
American Marketing Association Marketing Student of the Year Award to a major, a certificate given by Cincinnati and Dayton chapters
Wall Street Journal Student Achievement Award

Mathematics and Statistics
J. Paul & John P. Albert Scholarship
Alumni Senior Prize
Zoltan Balogh Memorial Award in mathematics
Osmond Barton Prize in Mathematics
Robert F. and Mary Sexauer Beyerly Memorial Scholarship
The Halbert C. Christofferson Mathematics Education Awards
Cincinnati Chapter of the American Statistical Association Comer-Reynolds Memorial Awards in statistics
Eric Erickson Scholarship
Faculty Prize
Mary Jeanette and Clifford Harvey Scholarship
Koehler Prizes
Kenneth Last Scholarship
Frederick A. Luecker Scholarship
McFarland Prize in Mathematics
Ohio National Scholarship
Patterson Prizes
Pi Mu Epsilon Awards
Byron Smith Mathematics Award
Corwin Smith Prizes in Mathematics
Western and Southern Scholarship Journal Award
Alberta L. Wolfe Fellowship

Mechanical and Manufacturing Engineering
Robin A. David Award to a student for outstanding service in department laboratories.
Electronic Data Systems Scholarships to two women or minority freshmen entering the program
Tony Esposito Scholarship to a freshman
Mechanical and Manufacturing Engineering Department Scholarship Award to an outstanding junior
Mechanical and Manufacturing Engineering Department Service Award to one student each semester
Mechanical and Manufacturing Engineering Scholarships to two freshmen
Ken Shinn/SAE Engineering Scholarship to a freshman

Microbiology
Dr. and Mrs. J.K. Bhattacharjee Microbiology Scholarship to an undergraduate
Donald C. Cox Awards for excellence in graduate studies
Lawrence Day Award to a junior
Fisher Award to an outstanding undergraduate research proposal
Edward Kezur Scholarship to an upper-class pre-med student majoring in chemistry, microbiology, or zoology, $1,000 scholarship
Susan W. Rockwood Memorial Scholarship Award to a female graduate student
Orton K. Stark Awards to a senior and a graduate student, plaques and cash awards
*Orton K. Stark Award*s to a first-year student, a sophomore, and a junior

Music
Alice Mattmueller Alexander Award
George Barron Music Scholarship
Nina J. Boyd Music Education Scholarship
Frances Cole Memorial Scholarship
Louise Glasgow and Eric E. Erickson Piano Scholarship
Cynthia Boeke Fisher Memorial Award
Virginia Pierce Glick Music Education Scholarship
Darrell and Wilma Grothen Music Scholarship
Heisey Music Award
Hill Composition Prize
George R. and Galen Glasgow Hoxie Scholarship (alternates with art)
Jean Hartsock-Palmer Scholarship
C.B. Huff Music Memorial Award
Alberta Lutz Ittel Scholarship
Lacey/Strimple Highland Band and Drum Scholarship
Lois D. Lehmkuhl Owl Award
NFMC Herman and Mary Newman Music Award
Phi Mu Alpha Symphonia/Fred Puff Memorial Award
Pam Eileen Poccia Award
Elizabeth Potteiger Award
Presser Foundation Scholarship
Frederick Wilson Puff Memorial Award
Nina Palmer Quay Memorial Scholarship
Mary Evans Rees Memorial Scholarship
Richard Schilling Scholarship
Dona Clare Sheley Presidential Scholarship
Steven Shumway Cella Scholarship
Richard A. Steuk Music Award
Clyde E. And Alice W. Stiner Scholarship
Jane Scott Hayes Telfair Music Education Scholarship
Barbara J. Tuttle Memorial Music Award

Nursing
Ruth Ann Busald Nursing Awards to graduating A.D.N. and B.S.N. students
Carl and Katherine Densford Dreves Scholarships to A.D.N. or B.S.N students
Vera Combs Iber M.D. Scholarship to a Hamilton campus first-year A.D.N. student
Marion L. Kagler and Kim Kagler Carroll Award to a Hamilton campus A.D.N. or B.S.N. student
Jessie Myers-Eeles Scholarships to A.D.N. or B.S.N. students

Chemical and Paper Engineering
ABB First Endowed Scholarship
ABB Second Endowed Scholarship
Mark A. Akers/Crystal Tissue Endowed Scholarship
Alumni Endowed Scholarship Award
Appleton Endowed Scholarship
William Beckett Endowed Scholarship
Beloit Corporation Endowed Scholarship
C. E. Brandon Endowed Scholarship
Philip S. and Virginia E. Cade Memorial Scholarship
Champion International Endowed Scholarship
Consolidated Papers Foundation Inc. Endowed Scholarship 1996
Consolidated Papers Foundation Inc. Endowed Scholarship 1998
William J. Copeland Endowed Scholarship
Georgia-Pacific Endowed Scholarship 1995

Georgia-Pacific Endowed Scholarship 1996
Georgia-Pacific Endowed Scholarship 1997
Georgia-Pacific Endowed Scholarship 1998
Georgia-Pacific Endowed Scholarship 1999
Georgia-Pacific Endowed Scholarship 2004
William O. Gutzwiller Endowed Scholarship
Hercules Incorporated Endowed Scholarship
Honeywell Corporation Endowed Scholarship
International Paper Company Endowed Scholarship
International Paper Company 2003 Endowed Scholarship
James River Corporation Endowed Scholarship
Charlene C. and George T. Jewett Endowed Scholarship
Kemira Chemicals Inc. Endowed Scholarship
Clemie McKinney Memorial Endowed Scholarship
Mead Westvaco Corporation Scholarship
Miami Valley PIMA Endowed Scholarship
Nalco Chemical Company Endowed Scholarship
Newark Group Endowed Scholarship
Ohio TAPPI Endowed Scholarship
Ohio TAPPI Leadership Endowed Scholarship
Omnova Solutions Inc. Endowed Scholarship
PCA–Tomahawk Mill Endowed Scholarship
Penford Products Endowed Scholarship
Pratt Industries Endowed Scholarship
Wyman C. Rutledge/Mead Corporation Endowed Scholarship
Simpson Paper Endowed Scholarship
Smurfit Stone Container Corp. Endowed Scholarship
Specialty Minerals Inc. Endowed Scholarship
TAPPI Paper Chase Endowed Scholarship
TEXO/Louis LernerEndowed Scholarship
Tenneco Packaging Endowed Scholarship
Tenneco Packaging–Tomahawk Mill Endowed Scholarship
Stanley and Ruth Trosset Endowed Scholarship
Union Camp Corporation Endowed Scholarship
Voith Paper Technology Endowed Scholarship
Weyerhaeuser Company Endowed Scholarship 1991
Weyerhaeuser Company Endowed Scholarship 1995
Weyerhaeuser Company Endowed Scholarship 2005
Bob and Barbara Williams Leadership Endowed Scholarship
xpedx Award

Philosophy
Hall Prize in Philosophy for best essay on philosophy
Linda Singer Scholarship to a junior or senior philosophy major

Physics
George and Carolyn Arfken Scholarship
Andrew Wolf Bylenga Scholarship
John E. Cocanougher Scholarship
Joseph A. Culler Prizes in Physics for excellence in first- and second-year physics; bequest of Dr. Culler
Drake Family Scholarship
R. L. Edwards Scholarship
Carl and Harriet Frische Scholarships to entering students
Hughes Memorial Scholarship
Dr. Benjamin Lee Memorial Scholarship
Philip A. and Cora G. Macklin Scholarship
William E. Shoupp Memorial Scholarship
John and Genny Snider Scholarship
Society of Physics Students Award to a senior, a science book
Robert W. and K. Ursula Votaw Presidential Scholarship

Political Science
Atlee Pomerine Senior Prizes in Government
Gary L. Best Memorial Award
Alan and Sondra Engel Prizes in Law
Irma Karmol Memorial Scholarship
David Koschik and Izumi Hara Student Enrichment Fund
The Ernst G. Siefert Capstone in Political Science
Howard White Awards in Government

Psychology
The Elizabeth Burckhardt Capstone in Psychology
Patrick J. Capretta Memorial Scholarship, by alumni and friends
Clark Crannell Undergraduate Research Award, by alumni and friends
E. F. Patten Senior Prize in Psychology, by alumni and friends
Rich/Ivens Scholarship (alternates with sociology)

ROTC Awards, Air Force
AFROTC sponsored awards: *AFROTC Valor Award, AFROTC Field Training awards (Distinguished Graduate Award, Superior Performer Award, "Ironman" Award, Warrior Spirit Award), AFROTC Achievement Award, AFROTC Commendation Award, Academic Honors Award, College Scholarship Recipient Ribbon, Physical Fitness Award, Recruiting Award, AFROTC Expert Marksmanship Award.*
Arnold Air Society Awards: *Arnold Air Society ribbon, Eagle Trophy ribbon, Hagan Trophy ribbon, LBJ Cup ribbon*
Awards from patriotic and aerospace organizations: *Air Force Association Award, Armed Forces Communication and Electronics Award, American Legion Award, American Veterans Award, Daughters of Founders and Patriots of America Award, Daughters of the American Revolution Award, Military Order of the Purple Heart Award, Military Order of the World Wars Medal, National Defense Industrial Association Award, National Defense Transportation Award, National Sojourners Award, Reserve Officers Association Award, Scottish Rite Southern Jurisdiction Award, Society of American Military Engineers Award, Society of the War of 1812 Award, Sons of the American Revolution Award, Veterans of Foreign Wars Award.*
Other awards: *Air Force Historical Foundation Award, Armed Forces Insurance Scholarship Award, Army and Air Force Mutual Aid Association AFROTC Scholarship, Col. Pat R. Paxton Memorial Award, First Command Educational Foundation Scholarship Award, Guy Pulliam Leadership Award, Lt. Col. Grissom Memorial Award, Lt. Col. Jay Smith Memorial Scholarship Award, Melissa Massaro Memorial Award, Order of Daedalians AFROTC Scholarship, United Services Automobile Association Scholarship Award, Wells Fargo Worldwide Bank Scholarship Award*

ROTC Awards, Navy and Marine Corps
American Legion Academic Excellence Awards to a senior, junior, and freshman with the highest academic averages
American Legion Military Excellence Awards to a senior, junior, and sophomore with the highest military aptitude averages
American Veterans of World War II, Korea, and Vietnam ROTC Award to a senior who demonstrates diligence and willingness to serve the U.S.
Armed Forces Communications and Electronics Association Award to a junior midshipman who demonstrates the greatest academic achievement in a scientific field of study
Captain Frederick Brower Honorary Award to a top Marine-option graduate, a Marine officer's sword and $500.
Burke Distinguished Senior Award, in memory of Jane Doubet Burke, to a graduating woman midshipman who demonstrates most outstand- ing potential for commissioned service, an officer's sword or $500
Burke Distinguished Student Award, in memory of Jane Doubet Burke, to a woman junior, sophomore, or freshman student who demonstrates highest qualities of scholarship, leadership, and devotion to duty, $1,000 scholarship
Bruce W. Card Memorial Award to a Marine Corps-option student who has distinguished himself/herself on summer bulldog training
Cincinnati Navy League Award, in honor of Senator Robert A. Taft Jr., to a senior chosen as the overall outstanding Navy-option midshipman, a Naval officer's sword
Cincinnati Navy League Remembering Jack Schiff Award to the outstanding college program graduate
Daughters of Founders and Patriots Award to a sophomore student who shows most improvement in the physical fitness test during current academic year
Daughters of the American Revolution Award to a senior who exhibits excellent dependability, good character, and leadership qualities
Dayton Navy League Award to the student chosen as the overall outstanding underclass midshipman, $100 savings bond

Cdr. Theodore J. Ehlers Memorial Award to a Navy-option senior who demonstrates superior performance and motivation toward a career as a surface warfare officer, a Naval officer's sword
James Clifford Garland Honorary Scholarship to the outstanding member of the junior class
Lt. Howard K. Kelly Memorial Award to a senior midshipman who has distinguished himself/herself by involvement and accomplishment in campus life and scholastic achievement, a Naval officer's sword
Marine Corps Association Award to a Marine-option graduating senior with the highest academic and aptitude average
Military Order of the World Wars Award to a freshman, sophomore, and junior midshipman for outstanding service to ROTC
National Defense Industrial Association Award to a senior midshipman who displays outstanding academic, leadership, and athletic performance
National Defense Transportation Award to a senior midshipman for outstanding professional aptitude and academic achievement in transportation or business
National Sojourners Award to a sophomore in the top of his or her academic class who exhibits high ideals of Americanism and leadership potential
Naval Submarine League Outstanding Achievement Award to midshipmen with proven academic and leadership skills who have been selected to enter the Navy's nuclear propulsion program as submarine officers
Ohio Reserve Officers Association Awards to a senior, junior, sophomore, and freshman for excellence in academic and military pursuits
Outstanding Navy Graduate Award to a top Navy-option graduate, a Naval officer's sword.
Reserve Officer's Association Ladies Award to a graduating midshipman for outstanding performance
The Retired Officer's Association Awards to a junior who shows skill in navigation and to a Marine-option student who demonstrates academic and leadership qualities that best exemplify a Marine officer
Secretary of the Navy Distinguished Midshipman Graduate Award to a graduating midshipman who demonstrates the highest standards of leadership, academic, and military performance
The Society of the War of 1812 Award to a sophomore midshipman for academic and military excellence and for demonstrating ideals of Americanism
Sons of the American Revolution Awards to a senior and freshman for outstanding naval or marine aptitude
The USAA Spirit Award to the student who best embodies the esprit de corps of the unit
Capt. Michael M. Vagedes Memorial Award to a senior Marine-option midshipman possessing the most potential for service as an officer, a Marine officer's sword
Veterans of Foreign Wars Awards to senior, junior, sophomore, and freshman midshipman for academic and military excellence

Sociology
Betty Kent Scholarship
Rich/Ivens Scholarship (alternates with psychology)

Spanish
Glenn A. Barr Scholarship in Spanish
L.P. Irvin Essay Prize in Spanish
Willis Knapp Jones Memorial Scholarship
Robert K. Newman Award for Excellence in Spanish
Elizabeth S. Rogers Scholarship
Timothy J. Rogers Memorial Scholarship

Teacher Education

Note: Contact the Department of Teacher Education at 513-529-6443 or go to 401 McGuffey for information about scholarships and awards available to students in teacher education programs.

Theatre
Homer N. Abegglen Theatre Scholarship
Homer and Henrietta Abegglen Theatre Scholarship
Biz and Bob Campbell Theatre Scholarship
Bill Cosby Scholarship for the Performing Arts
Sherry DarlingTheatre Award
Clara Vance Fixmer Scholarship (with journalism)
David Gallagher Playwriting Award
Loren Gates Memorial Theatre Scholarship
Hurst Family Scholarship for Theatre
Ronald C. Kern Scholarship in Theatre
Emmanuel Kladitis Theatre Scholarship
Mollie Weller Memorial Award
Willa S. Yeck Scholarship

Women's Studies
The Mina Burckhardt Capstone in Women's Studies
Barbara E. Nicholson Prize
Women's Studies Essay Prize

Zoology
William C. and Virginia A. Beck Talawanda Memorial Scholarship to an entering freshman and Talawanda High School graduate for academic merit and financial need
William C. and Virginia A. Beck Memorial Scholarship to a junior or senior planning a career in the environmental sciences for academic merit and financial need
Robert E. Hayes Scholarship to a junior pre-med student for academic achievement
Edward Kezur Scholarship to an upper-class pre-med student majoring in chemistry, microbiology, or zoology, $1000 scholarship
Birely Landis Scholarships to incoming and continuing graduate students for academic achievement
Malcom E. Switzer M.D. Award to a junior pre-med student for academic achievement
Stephen R. Williams Award to a major for achievement in research and scholarship
Zoology Doctoral Award to a doctoral student for achievement in research and scholarship
Zoology Masters Award to a master's student for achievement in research and scholarship
Zoology Undergraduate Award to a major for achievement in research and scholarship

Graduate Awards

Award Information

You must be admitted to the Graduate School with regular standing to be considered for a graduate award.

If you meet the minimum undergraduate grade point average required for admission with regular standing, you may be appointed to a graduate assistantship for one semester with reappointment contingent upon achievement of a 3.00 graduate grade point average for that semester and satisfactory performance of your graduate assistant duties.

You may not hold more than one graduate award for any given semester or academic year.

A graduate award holder cannot hold any other employment at Miami University during the term of the graduate award unless recommended by the department chair and approved by the graduate dean. International students (those with F-1 and J-1 visas) are allowed to work a maximum of 20 hours per week while classes are in session (this includes assistantship/associateship duties). An international student who holds a modified graduate assistantship with duties of eight hours per week may request permission to hold additional employment as long as that employment does not exceed 12 hours per week.

Award of a graduate appointment for one year involves no commitment for continued support by the university for subsequent years.

To Apply for a Graduate Award

To receive a graduate award you must be recommended by your department following your application and admission by the Graduate School. Contact the department to which you are applying for specific application requirements and deadlines. For a listing of graduate programs, visit the Graduate School website. More information on graduate awards is available in the *"A Handbook for Graduate Students and Faculty."*

Types of Awards

Most award recipients work in departments of their field of study. Graduate assistantships and doctoral associateships, however, are also available in other offices, such as the library, the Bernard B. Rinella Jr. Learning Center, university advancement, and intercollegiate athletics. Information is available from Academic Personnel Services, 513-529-6724, and the Graduate School, 513-529-3734.

Graduate assistantships are for holders of a baccalaureate degree seeking an advanced degree. These awards carry a stipend from at least $7,500 to a maximum of $20,342 for half-time duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/.*

Graduate assistants must carry between 10 to 14 hours of graduate courses each semester; however, Master of Arts in Teaching degree candidates in teacher education may carry nine graduate hours plus at least one undergraduate course each term. Duties normally occupy 18 to 20 hours per week. Students in music must pay additional special fees for applied music study.

Modified graduate assistantships are for holders of a baccalaureate degree seeking an advanced degree. These assistantships carry a stipend from at least $4,714 to a maximum of $5,823 for specified duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/.* Holders must carry between 12 to 16 graduate hours each semester; however, Master of Arts in Teaching degree candidates in teacher education may carry nine graduate hours plus at least one undergraduate course each term. Duties consist of assisting faculty in instruction or research for an average of eight hours per week for each semester of appointment.

Residence hall assistantships, for students who plan careers in college student personnel work, carry a stipend of $7,500 plus room and board for part-time duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/.* Holders must carry between 10 to 14 graduate hours each semester and perform duties as a counselor in a residence hall. Application should be made directly to the Office of Residence Life at the time of applying for admission to the Graduate School.

Teaching associateships are for holders of a master's degree or equivalent (i.e., 34 graduate semester hours in a doctoral program) seeking a doctorate or a Specialist in Education degree. These associateships carry a stipend from at least $16,083 to a maximum of $20,342 for half-time duties for two semesters. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/.* Teaching associates must carry between 10 to 14 hours of graduate courses each semester and perform duties, usually teaching, equivalent to 18 to 20 hours per week.

Doctoral associateships are for holders of a master's degree or equivalent (i.e., 34 graduate semester hours in a doctoral program) pursuing an approved program leading to a doctorate or a Specialist in Education degree. Doctoral associates are normally assigned responsibilities for nonteaching duties in administration. Stipends and academic responsibilities are the same as those for teaching associates.

Dissertation scholarships, for doctoral candidates at dissertation stage, are service free and carry a stipend ranging from $16,083 to $20,342. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate

comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/*. Holders must carry the maximum graduate load during the period of appointment.

Graduate summer scholarships are stipends of two $900 payments made during the summer semester. These stipends are awarded for a maximum of $1,800 for the summer semester, and there are no duties attached to the payment of this scholarship. The awards are given to graduate assistants, research graduate assistants, modified graduate assistants, residence hall assistants, teaching associates, graduate associates, and dissertation/doctoral scholars who hold awards for one or two semesters and meet the guidelines for these scholarships. Graduate assistants with half-time duties for two semesters are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer session immediately preceding or following the year of appointment. You will also be required to pay technology, facilities and metro fees. Total fees paid by graduate assistants are currently $636.00 per semester. Fee increases for 2010-2011 will be determined at the June 2010 meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: *http://www.units.muohio.edu/bur/*. Individual departments will determine what coursework is needed for their students to qualify for the summer scholarship and tuition/fee waiver.

Graduate grants-in-aid are waivers of instructional fee and out-of-state tuition. There is no cash stipend. No duties are required. These grants are available for one or both semesters and/or summer terms to U.S. and international students who are in need of financial assistance, have strong academic records, and show considerable promise of future attainment. These grants are for students in continuous full-time study leading to a degree; they are not available to part-time students, non-degree students, and students whose full-time study is limited to summer sessions. Continuance or renewal of a grant is dependent upon satisfactory progress toward a degree. To apply for this grant, you must submit an official application form before March 1 for the following summer term or for the following academic year. You must apply for this award annually.

Academic Responsibilities

You must maintain satisfactory progress toward your degree in order to assure continuance as a grant-in-aid holder, graduate assistant, doctoral associate, or teaching associate. Satisfactory progress means meeting minimum registration requirements, maintaining a cumulative grade point average of at least 3.00, and fulfilling academic requirements for your degree as determined by your department or program. Failure to achieve such progress may result in the revocation of the award.

Award Acceptance

The university adheres to the resolution adopted by the Council of Graduate Schools in the United States. The resolution provides that if an award recipient accepts an award before April 15, the recipient will have complete freedom through April 15 to resign in order to accept another appointment. After April 15, however, the recipient may not accept another award without obtaining a formal release from the first commitment.

Graduate Students' Achievement Fund

The Graduate School sponsors this program to recognize significant achievements in research or creative activities by graduate students. Achievement is defined as completed research or other creative activity that has been recognized by an external organization or selected by an academic department for regional or national presentation. Contact the Graduate School for more information.

Marjorie Post Farrington Award

The Graduate School is pleased to invite applications for the Marjorie Post Farrington Scholarship Award. The Marjorie Post Farrington Scholarship will be awarded for each academic year to a full-time graduate student in any area of study. The award is based primarily on merit and secondarily on financial need. Although the student selected may be appointed to a graduate assistantship or teaching associateship, no service responsibilities will be required of the recipient. See the Graduate Student Handbook or the GSA's Blackboard site for additional information.

Graduate Dean's Thesis and Dissertation Awards

The Associate Provost and Dean of the Graduate School will entertain requests for unusual expenses associated with a student's research for the masters thesis or doctoral dissertation. Please see the Graduate Student Handbook or the GSA's Blackboard site for additional information.

University Officers, Deans, and Chairs

Board of Trustees

The Board of Trustees consists of 9 voting members, three non-voting National Trustees and two student non-voting members. The 9 voting members are appointed one each year for nine-year terms by the governor of Ohio, with advice and consent of the Senate. A term expires on the last day of February of the year listed. National Trustees are appointed by the Board for 3-year terms (maximum two terms). The two student non-voting members are appointed for two-year staggered terms by the governor, with advice and consent of the Senate. The date in parentheses indicates the year of appointment.

Officers

John S. Christie
Chair

Donald L. Crain
Vice Chair

S. Kay Geiger
Secretary

David F. Herche
Treasurer

Members

2012 (2006) David M. Shade *(National Trustee)*
B.S. Bus., Crystal Lake, Illinois

2010 (2004) Jay L. Henderson *(National Trustee)*
B.S. Bus., Northfield, Illinois

2011 (2008) Sue J. Henry *(National Trustee)*
B.A., J.D., McLean, Virginia

2011 (2004) John S. Christie
B.S. Bus., M.B.A., Columbus

2013 (2004) S. Kay Geiger
B.S. Bus., Maineville

2014 (2004) David F. Herche
B.S. Bus., Cincinnati

2015 (2006) Donald L. Crain
B.S., J.D., West Chester

2016 (2009) Sharon J. Mitchell
B.S., West Chester

2017 (2008) Harry T. Wilks
J.D., Hamilton

2018 (2009) Dennis A. Lieberman
B.A., J.D., Clayton

2019 (2010) Jadgish K. Bhati
B.E., M.S., Cincinnati

Student Members

2011 (2009) Lindsey Bullinger
Fort Jennings

2012 (2010) Matthew Shroder
Warren

Executive Officers of Administration

David C. Hodge (2006)
President; Professor, Geography
B.A., Macalester, 1970; M.S., Penn State, 1973; Ph.D., 1975.

John H. Skillings (1976)
Interim Provost and Executive Vice President for Academic Affairs; Professor, Statistics
B.S., Manchester College, 1969; M.S. Miami, 1971; Ph.D., Ohio State, 1975.

David K. Creamer (2008)
Vice President for Finance and Business Services and Treasurer
B.B.A., Ohio, 1976; M.S., Kent State, 1986; Ph.D., 1990.

Debra Allison (2007)
Interim Vice President for Information Technology
B.A., Miami, 1973; M.S. 1982.

Barbara C. Jones (2008)
Vice President for Student Affairs
B.S., Indiana, 1975; M.S., 1978; Ph.D., Minnesota, 1988.

Jayne E. Whitehead (2000)
Vice President for University Advancement
A.B., Washington University, 1981; J.D., Washburn University School of Law, 1984.

Stephen D. Snyder (1973)
Secretary to the Board of Trustees and Executive Assistant to the President
A.B., Miami, 1973; M.B.A., 1975.

Deans

College of Arts and Science
Karen Maitland Schilling (1975)
Professor, Psychology
B.S., Tufts, 1971; M.A., Florida, 1972; Ph.D., 1975.

The Farmer School of Business
Roger L. Jenkins (2002)
Professor, Marketing
B.S., Berea College, 1968; M.B.A., East Tennessee State, 1970; Ph.D., Ohio State, 1976.

School of Education, Health and Society
Carine Feyten (2006)
Professor, Teacher Education
B.A., Katholieke Universiteit Leuven (Belgium), (1980), M.A., (1981);
Ph.D., University of South Florida, Tampa (1988).

School of Engineering and Applied Science
Marek Dollár (2000)
Professor, Engineering Science
B.S., Stanislaw Staszic (Poland), 1974; M.S., 1975; Ph.D., 1981.

School of Fine Arts
James Lentini (2007)
Professor, Music
B.M., Wayne State, 1982; M.M., Michigan State, 1984; D.MA., Southern California, 1990.

Graduate School
Bruce Cochrane (2007)
Professor, Zoology
B.S., Cornell, 1973; M.S., Indiana, 1975; Ph.D., 1979.

University Librarian
Judith A. Sessions (1988)
Professor, Library Administration
B.A., Central Florida, 1970; M.S.L.S., Florida State, 1971.

John E. Dolibois European Center
Thierry Leterre (2009)
Professor, Political Science

B.A., Sorbonne University (France), 1984; M.A., University of Picardie (France), 19855; M.A., Paris X University (France), 1988; Ph.D., Sorbonne University (France), 1999.

Miami University Hamilton, Middletown and Voice of America
G. Michael Pratt (2010)
Professor, Anthropology
B.A., Miami, 1973; M.a., Case Western Reserve, 1975; Ph.D. 1981.

Academic Departments and Chairs

Accountancy
Marc A. Rubin (1990)
B.S., Miami, 1975; M.A.S., Illinois, 1977; Ph.D., Texas, 1985.

Aerospace Studies
William B. Hamant, Lt. Colonel, USAF (2010)
B.S., Carnegie Mellon, 1990; M.S. Mercer, 1995.

Anthropology
Linda F. Marchant (1991)
B.A., Rutgers, 1973; M.A., 1978; Ph.D., 1981.

Architecture and Interior Design
John Weigand (1981)
B.E.D., Miami University, 1977; M.Arch., Illinois (Urbana-Champaign), 1979.

Art
Thomas Effler (1978)
B.S., Cincinnati, 1972; M.F.A., Indiana, 1977.

Botany
John Kiss (1993)
B.S., Georgetown, 1982., PhD., Rutgers, 1987.

Business Technology
Theodore N. Light (2003)
B.B.A., Cincinnati, 1974; M.B.A., 1975; Ph.D., 1993.

Chemical and Paper Engineering
Shashi Lalvani (2003)
B. Tech., Indian Institute of Technology, 1976; M.S., New Hampshire, 1979; Ph.D., Connecticut, 1982.

Chemistry and Biochemistry
Christopher A. Makaroff (1989)
B.S., Michigan, 1981; Ph.D., Purdue, 1986.

Classics
Stephen A. Nimis (1981)
B.A., Minnesota-Twin Cities, 1973; MA., 1975; PhD., 1981.

Communication
Richard Campbell (2004) (Interim)
B.A., Marquette, 1971; M.A., Wisconsin-Milwaukee, 1980; Ph.D., Northwestern, 1986..

Comparative Religion
Elizabeth Wilson (1992)
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Computer and Information Technology
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Computer Science and Software Engineering
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Decision Sciences and Management Information Systems
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Educational Leadership
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Educational Psychology
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B.S., North Alabama, 1969; M.Ed., Florida, 1974; Ph.D. 1976.

Electrical and Computer Engineering
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English
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B.A., Kentucky, 1963; M.A., 1968; Ph.D., 1974.

Family Studies and Social Work
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B.S., Nebraska (Lincoln), 1970; M.S., 1971; Ph.D. Brigham Young, 1978.

Finance
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French and Italian
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Geography
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Geology
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German, Russian, and East Asian Languages
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History
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Kinesiology and Health
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Management
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B.S., Iowa State, 1978; M.S., 1980; Ph.D., Georgia, 1986.

Marketing
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Mathematics
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Mechanical and Manufacturing Engineering
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Microbiology
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Music
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B.M., Wisconsin-Madison, 1973; M.Mus., Concordia College, 1979; Ph.D., 1983.

Naval Science
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B.S., United States Naval Academy, 1985.

Nursing
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B.S.N., DePauw, 1977; M.A., Ball State, 1984; D.N.S., Indiana, 1993.

Philosophy
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Physics
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Political Science
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B.Phil., Miami, 1983; M.A., Indiana, 1988; Ph.D. 1989.

Psychology
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Sociology and Gerontology
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Teacher Education
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For a list of current faculty, please visit the following website: http://www.units.muohio.edu/academicpersonnel

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Lou Ann Haines (2006)
Assistant to the Dean

Graduate Council

The Graduate Council is composed of 12 faculty members elected by the graduate faculty and three graduate students selected by the Graduate Student Association. The council works with administrative officers in establishing policies and procedures affecting graduate education, reviewing new courses and curricula, and maintaining standards for all programs.

Graduate Program Academic Departments, Chairs and Faculty

Please visit the Academic Personnel website for the most recent information.

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