

# MIAMI UNIVERSITY

## General Bulletin of Program Requirements and Course Descriptions 2014-2015

### To All New Students:

This Bulletin contains the requirements that you must meet for graduation as you enter Miami University in 2014-2015. Miami, however, reserves the right to make changes to its programs. You are encouraged to check regularly with your academic program advisor 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, a member of the North Central Association of Colleges and Schools (NCA) ([www.ncahl.org](http://www.ncahl.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

Respect for human diversity is an essential element of the Miami University community. Miami University strongly opposes and will not tolerate harassment or discrimination on the basis of sex (including sexual harassment, sexual violence, sexual misconduct, domestic violence, dating violence or stalking), race, color, religion, national origin, disability, age, sexual orientation, gender identity, pregnancy, military status, or veteran status. This prohibition extends to harassment or discrimination, based on the protected status listed above, including the creation of an intimidating, hostile, or offensive working, educational, or living environment. This policy also prohibits discrimination in employment based on genetic information as prohibited by the Genetic Information Nondiscrimination Act of 2008 (GINA).

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, Miami University, Oxford, Ohio 45056, 513-529-7157 (V/TTY) and 513-529-7158 (fax). Students in need of accommodations for disabilities should contact the Office of Disability Resources, 19 Campus Avenue Building, Miami University, Oxford, Ohio 45056, 513-529-1541 (V/TTY) and 513-529-8595 (fax).

Title IX Coordinator- Title IX of the Education Amendments of 1972 is a federal law prohibiting discrimination on the basis of sex in higher education. Sex discrimination includes sexual harassment and sexual violence. The University's Title IX Coordinator is Ms. Kenya D. Ash, Director of the Office of Equity and Equal Opportunity, Hanna House, Miami University, Oxford, Ohio 45056. Ms. Ash may be reached at 513-529-7157 (V/TTY) or [ashkd@MiamiOH.edu](mailto:ashkd@MiamiOH.edu).

Deputy Title IX Coordinator for Athletics- Ms. Jennifer A. Gilbert, Associate Athletic Director/Senior Woman Administrator/Director of NCAA Compliance is the University's Deputy Title IX Coordinator for matters related to equality of treatment and opportunity in Intercollegiate Athletics. This includes athletic financial assistance, accommodation of interest and abilities and equity of athletic program benefits. Ms. Gilbert may be reached at Millett Assembly Hall, Miami University, Oxford, Ohio 45056, 513-529-3113 or gilberj2@MiamiOH.edu.

Deputy Title IX Coordinator for Student Sexual Assault- Ms. Rebecca A. Getson, Sexual Assault Response Coordinator, is the Deputy Title IX Coordinator for matters related to sexual violence. This includes sexual misconduct, sexual violence and sexual coercion of students plus sex-based offenses including domestic and dating violence and stalking. You can contact the Deputy Title IX Coordinator for Student Sexual Assault by phone at 513-529-1870 or by email at getsonra@MiamiOH.edu.

Sections 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Coordinator- Section 504 and the ADA are federal laws prohibiting discrimination on the basis of disability. The University's Section 504 and ADA Coordinator is Ms. Kenya D. Ash, Director of the Office of Equity and Equal Opportunity, Hanna House, Miami University, Oxford, Ohio 45056. Ms. Ash may be reached at 513-529-7157 (V/TTY) or ashkd@MiamiOH.edu.

### **Smoke- and Tobacco-Free Environment**

All Miami University campuses are designated as smoke- and tobacco-free environments. Smoking and tobacco use are prohibited in all Miami University-owned facilities and on the grounds of any University-owned property, including street parking and garages controlled by the University (will include inside personal vehicles parked on University property as of January 1, 2014), and sidewalks that adjoin University property. Refer to Part 4, Chapter 10, of The Student Handbook or visit <http://www.MiamiOH.edu/about-miami/publications-and-policies/smoke-free-policy.html> for the full text of Miami's smoke- and tobacco-free policy.

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## **Miami University Academic Calendar**

**Visit the University Registrar's Website for the academic calendars containing important dates and deadlines for classes and registration.**

**Beginning with Academic Year 2013-14, the calendar has been modified with the addition of an optional winter term.**

**[www.units.MiamiOH.edu/reg/calendars/index.php](http://www.units.MiamiOH.edu/reg/calendars/index.php)**

# General Information

## Introduction

The *General Bulletin 2014-2015* is the academic guide for new students at Miami University.

The *Student Handbook* contains the official policies of the University.

**This Bulletin contains the requirements that you must meet for graduation as you enter Miami University in 2014-2015.** Miami, however, reserves the right to make changes to its programs. It is your responsibility to check regularly with your academic program advisor 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 involved 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.

## University Vision

Miami will provide the best undergraduate experience in the nation, enhanced by superior, select graduate programs.

## 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 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.

## I Am Miami

For more than 200 years, Miami has strived to create a sense of place that goes well beyond its stunningly beautiful environment. A place where all who come here know they are experiencing something special. Where they all feel welcome. Where they develop a sense of who they are and what they value by working, studying, and interacting with—and listening to and caring for—others.

"I Am Miami" is the phrase we use to define the culture to which we aspire and who we are as Miamians.

In 2002, the Miami Board of Trustees endorsed the Values Statement presented above, which has since inspired an expanded version, that today, is our Code of Love and Honor. Named for our beloved and traditional Love and Honor greeting, which, in turn, comes from our fight song chorus, "Love and Honor to Miami...." Our code begins with the words, "I Am Miami," thus uniting Miami tradition and values.

## Code of Love and Honor

### I Am Miami.

**I believe** that a liberal education is grounded in qualities of character and intellect.

**I stand** for honesty, integrity, and the importance of moral conduct.

**I respect** the dignity, rights, and property of others and their right to hold and express disparate beliefs.

**I defend** the freedom of inquiry that is the heart of learning.

**I exercise** good judgment and believe in personal responsibility.

**I welcome** a diversity of people, ideas, and experiences.

**I embrace** the spirit, academic rigor, opportunities, and challenges of a Miami Experience, preparing me to make the world a better place.

I demonstrate Love and Honor by supporting my fellow Miamians.

And because I Am Miami,

**I act** through my words and deeds in ways that reflect these values and beliefs.

With a deep sense of accomplishment and gratitude,

I will Love, Honor, and make proud those who help me earn the joy and privilege of saying,

**"To think that in such a place, I led such a life."**

## 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 its name reflects the history of 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, interdisciplinary studies in 1974, and professional studies and applied sciences in 2013.

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. Miami's Voice of America Learning Center in West Chester opened in 2009.

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 15,000 undergraduates and 2,200 graduate students are enrolled at the Oxford campus. Each year about 220 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 5,500 additional students.

Miami's Voice of America Learning Center in nearby West Chester, Ohio, opened in January 2009. Serving several hundred undergraduates and graduate students each session, this multipurpose instructional facility offers graduate and undergraduate courses and programs, as well as customized training opportunities for business, industry, school districts, and government agencies.

The Greentree Health Science Academy, a public/private collaboration connecting students of all ages to health care careers, opened on the campus of the Atrium Medical Center near I-75 in Middletown in August 2011. It is home to many of Miami University's nursing and health science-related courses.

## Academic Divisions and Programs

Miami has seven academic divisions: College of Arts and Science; Farmer School of Business; College of Creative Arts,

College of Education, Health and Society; College of Engineering and Computing, College of Professional Studies and Applied Sciences, and the Graduate School. Programs leading to associate, bachelor's, master's, Specialist in Education, and doctoral degrees are offered. Major areas, degrees, and certificates are listed beginning later in this section. Graduate certificates are also available.

## 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 9,500 (excluding students). Uptown, adjacent to campus, are small shops and local eateries.

The university covers more than 2,400 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 Nation.

## Resources

### Computer and Information Technology Services

Information Technology Services (IT Services)

Main office: 302 Hoyt Hall, 513-529-5322

Support Desk: 513-529-7900: [ithelp@MiamiOH.edu](mailto:ithelp@MiamiOH.edu)

IT Help Knowledge Base: <http://ithelp.MiamiOH.edu>

myMiami Web portal: <http://mymiami.MiamiOH.edu>

Print center: 513-529-6065: [www.MiamiOH.edu/printcenter](http://www.MiamiOH.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 computing services that 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.MiamiOH.edu/technologyguide](http://www.MiamiOH.edu/technologyguide).

### Technology Support

Students can find technology and support information around-the-clock via Miami's online IT Help Knowledge Base ([ithelp.MiamiOH.edu](http://ithelp.MiamiOH.edu)). The IT Services Support Desk provides support via phone (513-529-7900), chat ([www.MiamiOH.edu/uit](http://www.MiamiOH.edu/uit) - click the Chat Now link) or email ([ithelp@MiamiOH.edu](mailto:ithelp@MiamiOH.edu)).

### Web-Based Services

myMiami ([mymiami.MiamiOH.edu](http://mymiami.MiamiOH.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 bring a computer to campus. Laptop computers are available through the recommended Miami Notebook Program ([www.MiamiOH.edu/miaminotebook](http://www.MiamiOH.edu/miaminotebook)). These laptops are designed and configured to provide easy access to the Miami network and other services. On-campus warranty support and other services are provided free or at a discount for Miami Notebooks. 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 <https://software.MiamiOH.edu>.

## 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 printing and specialty finishing services via the Print Center, 513-529-6065, [www.MiamiOH.edu/printcenter](http://www.MiamiOH.edu/printcenter)).

## Continuing Education Programs

Global Initiatives  
216 MacMillan, 513-529-8600  
[MiamiOH.edu/global](http://MiamiOH.edu/global)

Global Initiatives administers a broad array of credit and non-credit programs and services that broaden the traditional Miami classroom experience.

Credit programs are led by Miami University faculty and include local, online, domestic and study-abroad credit workshops.

Non-credit opportunities include online courses and serving as the administrative home for the Institute for Learning in Retirement

The Global Initiatives office is an authorized passport application acceptance agency.

## Graduate Student Associations

Graduate School  
102 Roudebush Hall, 513-529-3734  
[www.MiamiOH.edu/graduate-studies/](http://www.MiamiOH.edu/graduate-studies/)

**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.

## Housing

Office of Housing Options, Meals & Events (H.O.M.E.)  
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 is available through the Office of Off-Campus Affairs at 513-529-2268. The Oxford Press (513-524-4139), the local newspaper, also 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 University Contract Confirmation 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.

## Howe Writing Center

King Library, 513-529-6100  
[www.MiamiOH.edu/writingcenter](http://www.MiamiOH.edu/writingcenter)

The Howe Writing Center's mission is to help every Miami student become a highly accomplished writer. We offer free consultations, workshops, and other assistance to students in every major at any stage in their writing process, whether they are first-semester undergraduates, seniors completing their honors theses, or graduate students preparing their dissertations. We also celebrate students' writing accomplishments as well as encourage and support the writing they do outside of their courses. Our website provides details about our programs, services, and activities.

## Libraries

[www.lib.MiamiOH.edu](http://www.lib.MiamiOH.edu)  
King Library: 513-529-4141, 513-529-2800  
BEST Library: Laws Hall, 513-529-6886  
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, 513-529-9695

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 students. Each library specializes in specific fields or departments, so you can find a place to research, study, 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 and iPad study rooms, a graduate reading room, computer labs, cafe and much more.

You can access thousands of thousands of books, e-books and audiovisual materials for your papers and projects, many of which can be accessed online without having to leave home.

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

## Museums

**Art Museum:** 801 S. 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 Alliance 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:** 401 E. Spring St., 513-529-8380

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:

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.MiamiOH.edu/owp](http://www.MiamiOH.edu/owp)

The Ohio Writing Project (OWP) is part of the National Writing Project, a network of nearly 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

Miami is committed to maintaining a safe learning environment for all students and members of the university community. While Miami's campus is relatively safe, crime does occur on campus. Each member of the university community has a responsibility to contribute to the well-being of the community.

### Emergency Notification and Response

In the event of an emergency, contact Miami University Police at 911 to initiate the emergency messaging system.

### Emergency Messaging System—Notification of an Immediate Threat

Miami University maintains multiple systems for alerting the Miami community about campus emergencies and will use some or all of those systems, depending on the circumstances. The Miami Emergency Text Messaging System is available to all Miami University students, faculty, and staff.

To receive this service, individuals must sign up through the University Police at [www.units.MiamiOH.edu/psf/police/emergencytextmessaging](http://www.units.MiamiOH.edu/psf/police/emergencytextmessaging).

### Annual Safety and Security Report/Annual Fire Safety Report

Miami publishes an annual report of safety and security polices and crime statistics in an Annual Safety Report and an Annual Fire Safety Report.

**Miami University Police** officers are fully sworn and armed law enforcement officers, empowered to investigate alleged criminal activity, search and arrest as authorized by law, and use necessary and reasonable force to enforce the law and protect persons and property. They evaluate reported crimes, conduct investigations, and effect arrests.

### Emergency Procedures

Miami University has established emergency procedures for a number of events that range from chemical spills to severe weather that involve individual as well as collective action to respond safely. Information to guide responses to a variety of potential dangers is available at Emergency Preparedness. For more information contact Environmental Health and Safety: 55 Hughes Hall, 513-529-2829.

## Scripps Gerontology Center

396 Upham Hall, 513-529-2914

[www.scripps.MiamiOH.edu](http://www.scripps.MiamiOH.edu)

Scripps Gerontology Center is a leading source of local, state, national, and international information about the impact of aging on society, and effective solutions to the challenges associated with aging populations. Recently recognized as an Ohio Center of Excellence, the mission of Scripps Gerontology Center is to provide research and education that make a positive difference in the lives of older people, their families, and their communities.

Scripps works with the Department of Sociology & Gerontology providing core leadership, administrative support, and hands-on research experience to students. This unique relationship with the gerontology graduate programs helps provide a vigorous academic learning environment led by engaged, innovative faculty and research scholars. For information about graduate degrees and research opportunities, contact the Center's main office.

## Speech and Hearing Clinic

Department of Speech Pathology and Audiology

2 Bachelor Hall (513) 529-2500

[www.units.MiamiOH.edu/speechhearingclinic/](http://www.units.MiamiOH.edu/speechhearingclinic/)

The Department of Speech Pathology and Audiology operates this clinic. The Clinic's mission is to promote excellence in clinical training of future speech-language-hearing professionals and to provide comprehensive assessment and treatment services for individuals with speech, language, or hearing disorders. There is a fee for services. Patient records are confidential. 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.MiamiOH.edu/saf/scs/](http://www.units.MiamiOH.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.

## Student Health Services

Health Services  
Student 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, Women's Health Care and travel immunizations. We provide pharmacy and laboratory services to our students and also accept outside orders from other providers. The SHS will submit claims to the student's insurance company. Please have your insurance card and Student ID card available when visiting the SHS.

The Office of Student Wellness offers prevention materials, student safety information, and substance abuse education for Miami Students on the Oxford Campus. The Health Advocates for Wellness, Knowledge and Skills (HAWKS) are a peer education team that promotes healthy behaviors through campus awareness campaigns and programs for student groups.

Hospitalization and emergency care is available at McCullough-Hyde Memorial Hospital (513-523-2111). Emergency medical assistance, call 911.

## Transportation

Parking and Transportation Services  
Campus Avenue Building, Room 128, 513-529-2224

The Parking and Transportation Services Office ([www.MiamiOH.edu/parking](http://www.MiamiOH.edu/parking)) offers several transportation programs to students:

- The Butler County Regional Transit Authority (BCRTA) provides daily bus service, including weekends and evenings, throughout campus and to off-campus areas in Oxford. Call the Bus Information Hotline at 513-785-5237 or toll-free 855-42-BCRTA for information.
- Miami's Regional campuses are also served by regional routes in the BCRTA system. The schedule is on their website at the following link: [ButlerCountyRTA.com](http://ButlerCountyRTA.com).
- A medical transport service for students (Access Miami) with temporary and permanent disabilities is available daily when the bus service is in operation. Nighttime Door-to-Door (NDD) provides service to and from campus during evening hours. Call 513-785-5237 or toll-free 855-42-BCRTA 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 513-529-3436.
- Airport transportation to the Dayton and Northern Kentucky/Cincinnati airports from the Shriver Center is available for Thanksgiving, winter, and spring breaks. For more information, call the Shriver Center Box Office at 513-529-3200.

## Women's Center

127 McGuffey, 513-529-1510  
[www.MiamiOH.edu/womenscenter](http://www.MiamiOH.edu/womenscenter)

The Women's Center is a resource and advocacy center that provides opportunities for campus engagement with women's and gender issues in a welcoming space for all. Established in 1991, the Women's Center provides consultation, support and referral services as well as educational programs and leadership development opportunities. The Center also offers space for study, meetings and relaxing along with an extensive collection of books available for checkout and computers with Internet access and printing. Learn more about Women's Center programs and services by checking out their website, liking their Facebook page,

following their Twitter feed, or subscribing to WOMYNTLK, the Women's Center's 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.MiamiOH.edu](http://www.MiamiOH.edu)

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

*Admission, Graduate:* Graduate School, 102 Roudebush, 513-529-3734.

*Community Service:* Office of Community Engagement and Service, Hannah House, 513-529-2961.

*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.

*Greentree Health Science Academy:* 5757 Innovative Drive, Middletown, OH 45005, 513-933-3960.

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

*Honors Program:* 101 Old Manse, 410 E. High Street, 513-529-3399.

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

*International Students:* International Student and Scholar Services, 200 MacMillan, 513-529-5628.

*I.T. Services: Support Desk:* 317 Hughes Hall, west wing, 513-529-7900.

*Liberal Education Office:* 313 Laws Hall, 513-529-7135.

*Middletown Campus:* Miami University Middletown, 4200 N. University Blvd., Middletown, OH 45042, 513-727-3200 or 1-86-MIAMI-MID (Toll free).

*Minority Affairs:* Office of Diversity Affairs (Cultural Center), 2030 and 2030A Armstrong Student Center, 513-529-6504.

*Parking, Motor Vehicle, and Bicycle Regulations:* Parking and Transportation Services, 128 Campus Avenue Building, 513-529-2224.

*Recreational Sports:* Recreational Sports Center, 513-529-4732.

*Registration:* Office of the University 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 University 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, 2026 Armstrong Student Center, 513-529-2266.

*Student Responsibility and Regulations:* See *The Student Handbook*, published online each academic year and available at [www.MiamiOH.edu/handbook](http://www.MiamiOH.edu/handbook).

*Study Abroad:* Study Abroad Office, 216 MacMillan, 513-529-8600, [studyabroad.MiamiOH.edu](http://studyabroad.MiamiOH.edu).

*Veterans Certifying Official:* Office of the University Registrar, 102 Campus Avenue Building, 513-529-8703.

*Voice of America Learning Center:* 7847 VOA Park Drive, West Chester, OH 45069, 513-895-8862.

*Women's Center:* 127 McGuffey, 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 and Architecture History	Bachelor of Arts in the History of Art and Architecture	—
Art Education	Bachelor of Science in Art	Master of Arts
Athletic Training	Bachelor of Science in Athletic Training	—
Biochemistry	Bachelor of Science, Bachelor of Arts	—
Bioengineering	Bachelor of Science in Engineering	—
Biological Physics	Bachelor of Science	—
Biological Sciences	—	Master of Arts in Teaching
Biology	Bachelor of Arts, Bachelor of Science	Master of Arts, Master of Science, Doctor of Philosophy
Black World Studies	Bachelor of Arts	—
Botany	Bachelor of Arts, Bachelor of Science	Master of Arts, Master of Science, Doctor of Philosophy
Business Administration (part-time)	—	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	Master of Science in Chemical Engineering
Chemistry	Bachelor of Arts, Bachelor of Science	Master of Science, Doctor of Philosophy
Chemistry Education	Bachelor of Science in Education	—
Chinese Education	Bachelor of Science in Education	—
Civic and Regional Development	Bachelor of Science in Civic and Regional Development	—
Classical Humanities	Bachelor of Arts	—
Classical Languages	Bachelor of Arts	—
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
Criminal Justice	Bachelor of Science in Criminal Justice	—
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	—
East Asian Language and Cultures	Bachelor of Arts	—
Ecology, Evolution and Environmental Biology (EEEB)	—	Doctor of Philosophy
Economics	Bachelor of Arts	Master of Arts
Educational Leadership	—	Doctor of Education, Doctor of Philosophy
Educational Psychology	—	Master of Education
Electrical Engineering	Bachelor of Science in Engineering	—
Elementary Education	—	Master of Education
Elementary Mathematics Education	—	Master of Education
Engineering Management	Bachelor of Science in Engineering	—
Engineering Physics (pre-professional)	Bachelor of Science	—

Major	Undergraduate Degree(s)	Graduate Degree(s)
Engineering Technology	Bachelor of Science in Applied Science	—
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/Professional Writing	Bachelor of Arts	—
Environmental Earth Science	Bachelor of Arts	—
Environmental Science	—	Master of Environmental Science
Family Studies	Bachelor of Science in Family Studies	—
Finance	Bachelor of Science in Business	—
Foreign Language Education	—	Master of Arts in Teaching
Forensic Investigation	Bachelor of Science in Forensic Science and Investigation	—
Forensic Science	Bachelor of Science in Forensic Science and Investigation	—
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
General Engineering	Bachelor of Science in Engineering	—
German	Bachelor of Arts	—
German Education	Bachelor of Science in Education	—
Gerontology	Bachelor of Arts	Master of Gerontological Studies, Master of Population and Social Gerontology, Doctor of Philosophy
Graphic Design	Bachelor of Fine Arts	—
Health Information Technology	Bachelor of Science in Information Technology	—
Health Promotion	Bachelor of Science in Kinesiology & Health	—
History	Bachelor of Arts	Master of Arts
Individualized Studies Program	Bachelor of Arts	—
Information Systems	Bachelor of Science in Business	—
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	—
Integrative Studies	Bachelor of Integrative Studies	—
Interactive Media Studies	Bachelor of Arts in Interactive Media Studies	—
Interdisciplinary Business Management	Bachelor of Science in Business	—
Interior Design	Bachelor of Fine Arts	—
International Studies	Bachelor of Arts in International Studies	—
Italian Studies	Bachelor of Arts	—
Journalism	Bachelor of Arts	—
Kinesiology	Bachelor of Science in Kinesiology & Health	Master of Science in Kinesiology and Health
Language and Literacy	—	Master of Education
Latin American Latino/a and Caribbean Studies	Bachelor of Arts	—
Latin Education	Bachelor of Science in Education	—
Life Chemistry Education	Bachelor of Science in Education	—
Life Science/Chemistry Education	Bachelor of Science in Education	—
Linguistics	Bachelor of Arts	—
Management & Leadership	Bachelor of Science in Business	—
Manufacturing Engineering	Bachelor of Science in Engineering	—
Marketing	Bachelor of Science in Business	—
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	—
Media and Culture	Bachelor of Arts	—
Medical Laboratory Science	Bachelor of Science	—
Microbiology	Bachelor of Arts, Bachelor of Science	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	—
Nutrition	Bachelor of Science in Kinesiology & Health	—
Philosophy	Bachelor of Arts	Master of Arts
Physical Science Education	Bachelor of Science in Education	—

## 12/ Undergraduate and Graduate Majors and Degrees

Major	Undergraduate Degree(s)	Graduate Degree(s)
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)
Public Administration	Bachelor of Arts	—
Quantitative Economics	Bachelor of Science	—
Reading Education	—	Master of Education
Religion	Bachelor of Arts	Master of Arts
Russian, Eastern European, and Eurasian Studies	Bachelor of Arts	—
School Leadership	—	Master of Education
School Psychology	—	Master of Science, Specialist in Education
Secondary Education	—	Master of Education
Social Gerontology	—	Doctor of Philosophy
Social Justice Studies	Bachelor of Arts	—
Social Work	Bachelor of Science in Social Work	Master of Arts
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 Pathology and Audiology	Bachelor of Science	Master of Arts, Master of Science
Sport Leadership and Management	Bachelor of Science in Kinesiology & Health	—
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
Transformative Education	—	Master of Education
Urban and Regional Planning	Bachelor of Arts	—
Women's, Gender, and Sexuality Studies	Bachelor of Arts	—
Zoology	Bachelor of Arts, Bachelor of Science	—

## 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 Public Policy	Arts and Science
American Studies	Arts and Science
Anthropology	Arts and Science
Applied Sociological Research	Arts and Science
Arabic	Arts and Science
Art and Architecture History	Creative Arts
Art, 2-Dimensional Media Studies	Creative Arts
Arts Management	Business; Creative Arts
Asian-Asian American Studies	Arts and Science
Bioengineering	Engineering and Computing
Bioinformatics	Engineering and Computing
Black World Studies	Arts and Science
Business Analytics	Business
Business Legal Studies	Business
Ceramics	Creative Arts
Chemical Engineering	Engineering and Computing
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
Community-Based Leadership	Education, Health, and Society
Computational Science and Engineering	Engineering and Computing
Computer Engineering	Engineering and Computing
Computer Science	Engineering and Computing
Creative Writing	Arts and Science

Minor	Academic Division
Crime, Law and Social Justice	Arts and Science
Criminal Justice	Professional Studies and Applied Sciences
Criminology	Arts and Science
Dance	Creative Arts
Digital Game Studies	Arts and Science
Disability Studies	Arts and Science
East Asian Studies	Arts and Science
Economics	Arts and Science, Business
Educational Technology	Education, Health, and Society
Electrical Engineering	Engineering and Computing
English Literature	Arts and Science
Entrepreneurship	Business
Ethics, Society, and Culture	Arts and Science
European Area Studies	Arts and Science
Family Relationships	Education, Health, and Society
Fashion Design	Creative Arts
Film Studies	Arts and Science
Finance	Business
Forensic Investigation	Professional Studies and Applied Sciences
French	Arts and Science
General Business	Business
Geography	Arts and Science
Geology	Arts and Science
German	Arts and Science
Gerontology	Arts and Science
Global Health Studies	Arts and Science
Global Perspectives on Sustainability	Arts and Science
Graphic Design	Creative Arts
History	Arts and Science
History of Philosophy	Arts and Science
Horticulture	Arts and Science
Individualized Studies	Arts and Science
Information Systems	Business
Interactive Media Studies	Arts and Science
Interdisciplinary Studies	Arts and Science
International Business	Business
Italian	Arts and Science
Japanese	Arts and Science
Jewelry Design and Metals	Creative Arts
Jewish Studies	Arts and Science
Landscape Architecture	Creative Arts
Latin American Latino/a and Caribbean Studies	Arts and Science
Linguistics	Arts and Science
Lusophone Studies	Arts and Science
Management	Business
Management and Leadership	Business
Management of Information Technologies	Business
Manufacturing Engineering	Engineering and Computing
Marketing	Business
Mathematics	Arts and Science
Mechanical Engineering	Engineering and Computing
Medieval Studies	Arts and Science
Middle East and Islamic Studies	Arts and Science
Molecular Biology	Arts and Science
Music Composition	Creative Arts
Music History	Creative Arts
Music Performance	Creative Arts
Music Theatre	Creative Arts
Naval Science	Arts and Science
Neuroscience	Arts and Science
Nutrition	Education, Health, and Society
Operations Research Methods	Arts and Science
Paper Engineering	Engineering and Computing
Photography	Creative Arts
Physics	Arts and Science
Plant Biology	Arts and Science
Plant Biotechnology	Arts and Science
Political Science	Arts and Science
Religion	Arts and Science

## 14/ Undergraduate and Graduate Majors and Degrees

Minor	Academic Division
Rhetoric/Writing	Arts and Science
Risk Management and Insurance	Business
Russian	Arts and Science
Russian, Eastern European, and Eurasian Studies	Arts and Science
Sculpture	Creative Arts
Social Justice and Inequalities	Arts and Science
Sociology	Arts and Science
Spanish	Arts and Science
Special Education	Education, Health, and Society
Sport Management	Education, Health, and Society
Statistical Methods	Arts and Science
Statistics	Arts and Science
Supply Chain Management	Business
Theatre Arts	Creative Arts
Urban and Regional Analysis	Arts and Science
Urban Design	Creative Arts
Women's, Gender, and Sexuality Studies	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
Business Software Technology	Associate of Applied Business
Computer and Information Technology	Associate in Applied Science
Computer Technology (continuation option for CSE)	Associate in Applied Science
Criminal Justice	Associate in Applied Science
Electrical and Computer Engineering Technology	Associate in Applied Science
General Studies	Associate in Arts
Marketing Management Technology	Associate of Applied Business
Mechanical Engineering Technology	Associate in Applied Science
Prekindergarten Education	Associate in Applied Science
Technical Study	Associate of Technical Study

## Undergraduate Certificate Programs

Programs available on all campuses:

Program	Academic Division
China Business	Business
Design Thinking	Creative Arts
Geographic Information Science	Arts and Science
Leadership	Engineering and Computing
Paper Science and Engineering	Engineering and Computing
Teaching English Language Learners (TELLs)	Education, Health and Society

## Graduate Certificate Programs

Program	Academic Area
Applied Statistics	Department of Statistics
College Teaching	Departments of Graduate School and CELTUA
Ecology	Departments of Biology, Geography, Geology & Environmental Earth Science, Microbiology
Gerontology	Departments of Sociology and Gerontology; Scripps Gerontology Center
Interactive Media Studies	College of Creative Arts
Professional Development: String Instrumental Performance	Department of Music
Professional Development: Assessment and Evaluation	Department of Educational Psychology
Russian, Eastern European and Eurasian Studies	Departments of History, Political Science and Religion
Women's, Gender, and Sexuality Studies	Department of Women's, Gender, and Sexuality Studies

# Admission for Undergraduate Students

## Office of Admission

Campus Avenue Building

TTY accessible: 513-529-2531

[www.MiamiOH.edu/admission/](http://www.MiamiOH.edu/admission/)

## About Admission

Miami's official admission policy is in *The Student Handbook*, available online at [www.MiamiOH.edu/handbook](http://www.MiamiOH.edu/handbook).

Miami's Oxford campus is selective in admissions accepting only a portion of those who apply.

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), 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 first-time 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
- four units of college preparatory mathematics (at least to the Algebra II level)
- four 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 advisor 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):

American Sign Language 101 and 102  
 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 Test Scores

Miami requires official ACT or SAT test scores sent directly from the testing agency. Exceptions to this are if you have been out of high school five or more years or have already completed 20 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 or legal guardians; 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 (rubella). Failure to meet immunization requirements will prevent course registration. All new international students are required to have a tuberculosis clearance done by the Student Health Service before registering for classes.

You must provide proof of health insurance coverage every year by completing the electronic Health Insurance Waiver form between June 1st and August 1st. If you are not covered by another policy, you will be charged for the insurance the university makes available. 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.

Miami Regional locations in Hamilton, Middletown and West Chester are commuter campuses and have an open enrollment policy for first-time freshmen. Local area residents who are not accepted to the Oxford campus can begin their Miami studies by commuting to one of the Regional locations. After completing 16 semester hours in good academic standing at a regional campus, they can continue at the Oxford campus or complete one of the degrees offered at the Regionals.

## 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."
- SAT or ACT tests scores are required for admission of international students 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, 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](http://www.toefl.org) or [www.ielts.org](http://www.ielts.org).

Students admitted through the American Culture and English (ACE) Program are conditionally admitted to Miami University. For a student's status to change from conditional admission to regular enrollment, students must complete the ACE core curriculum with a B- or higher in each of the required English language classes (ACE 112 and ACE 113) and with a passing grade (D- or higher) in the American culture course. If a student does not achieve a grade of B- or higher in both ACE 112 and ACE 113, or fails the American culture course, the student's enrollment status will remain conditional and the student will be required to retake the pertinent course(s) during his/her second semester. If the student does not earn grades of B- or higher in ACE 112 and ACE 113 and does not pass the American culture course at the conclusion of the second semester, that student has not met the requirements of conditional admission and will not be allowed further enrollment at any Miami University campus.

Undergraduate international students, like all Miami undergraduates, must satisfy the freshman English requirement. Students will initially be placed in the appropriate English courses based on test scores or other English proof of proficiency received at the time of admission. An additional written and verbal proficiency test will be administered during international student orientation.

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 English at the Howe Writing Center located in King Library.

## Selective Admission

Student Handbook, under Selective Admission:

### Conditional Admission

A student who is competitive for admission, but does not meet the minimum English language proficiency requirement, may be offered conditional admission. Conditional admission is only granted through approved intensive English language programs, including the Miami University American Culture and English (ACE) Program. For a student's status to be changed from conditional admission to regular enrollment, the student must complete and fulfill all criteria established by the approved program.



## Information and Application

Information and application forms for prospective international undergraduate students are available online at [MiamiOH.edu/admission/international](http://MiamiOH.edu/admission/international). Students can also contact the office at:

Office of Admission  
301 S. Campus Ave.  
Miami University  
Oxford, Ohio 45056-3434  
U.S.A.  
Phone: 513-529-2531  
Fax: 513-529-0682  
E-mail: [goglobal@MiamiOH.edu](mailto:goglobal@MiamiOH.edu)

## Transfer Student Admission

A transfer student is anyone who wishes to enroll in an undergraduate degree program at Miami and who has attended a college or university other than Miami after graduating from high school. If you have registered for one or more courses at another college after high school regardless of whether or not credit was granted, or entered the military, you must apply for admission as a transfer student. If you have earned Advanced Placement credit or college credit while attending high school or during the summer after your admission to Miami has been processed, you are not considered a transfer student.

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, be in good standing in all respects at your prior institution, and have a minimum of 2.00 GPA 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 Global 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 GPA. 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 advisor 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 Composition and Rhetoric (3) (MPF) and  
ENG 112 Composition and Literature (3) (MPF)

### Mathematics and Statistics

Select any three (3) hours from:

MTH 104 Precalculus with Algebra (5)  
MTH 125 Precalculus (5)  
MTH 151 Calculus I (3) (MPF, MPT)  
MTH 249 Calculus II (3) (MPF)  
MTH 251 Calculus II (4)  
STA 261 Statistics (4) (MPF, MPT)

### Arts/Humanities

Select at least three (3) hours from:

ARC 188 Ideas in Architecture (3) (MPF)  
ARC 221 History of Architecture I (3) (MPF)  
ARC 222 History of Architecture II (3) (MPF)  
ART 181 Concepts in Art (3) (MPF)  
ART 185 India and Southeast Asia (3) (MPF)  
ART 286 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 233 Global Perspectives on Dress (3) (MPF)  
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 Experiencing Theatre (3) (MPF, MPT) and

Select six (6) hours from two different areas:

AMS 205 Introduction to American Cultures (3) (MPF)  
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)  
EDL 204 Sociocultural Studies in Education (3) (MPF, MPT)  
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)

## 18/ Admission for Undergraduate Students

ENG 163 Literature and Travel (3) (MPF)  
ENG 165 Literature and Sexuality (3) (MPF)  
FRE 131 Masterpieces of French Culture in Translation (3) (MPF)  
FST 201 Introduction to Film Criticism and History (3) (MPF, MPT)  
GER 231 Folk and Literary Fairy Tales (3) (MPF, MPT)  
GER 251 German Literature in Translation: Changing Concepts of the Self (3) (MPF, MPT)  
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)  
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 Introduction to Ethics (3) (MPF, MPT)  
REL 101 American Religious Encounters (3) (MPF, MPT)  
REL 314 Social and Religious History of the Jewish People (3) (MPF, MPT)  
RUS 137 Russian Folklore (3) (MPF, MPT)  
RUS 255 Russian Literature in English Translation From Pushkin to Dostoevsky (3) (MPF, MPT) **or**  
ENG 255 Russian Literature in English Translation From Pushkin to Dostoevsky (3) (MPF, MPT)

**Take six (6) hours from two different areas:**

### Social Sciences

ATH 155 Cultures in Context (4) (MPF)  
BWS 151 Introduction to Black World Studies (4) (MPF, MPT)  
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)  
FSW 261 Diverse Family Systems Across the Life Cycle (3) (MPF, MPT)  
GEO 101 Global Forces, Local Diversity (3) (MPF, MPT)  
GEO 111 World Regional Geography: Patterns and Issues (3) (MPF, MPT)  
GTU 154 Aging in American Society (3) (MPF, MPT)  
KNH 276 The Meaning of Leisure (3) (MPF)  
MAC 143 Introduction to Media (3) (MPF)  
POL 241 American Political System (4)  
PSY 111 Introduction to Psychology (4) (MPF)  
SOC 151 Social Relations (4) (MPF)  
SPA 223 Theories of Language Development (3)  
WGS 201 Introduction to Women's Studies (3) (MPF, MPT)

### World Cultures

*Take three (3) hours from:*

ART 279 Buddhism and Culture: China and Japan (3) (MPF) **or**  
JPN 279 Buddhism and Culture: China and Japan (3) (MPF)  
ATH 175 Peoples of the World (3) (MPF, MPT)  
GEO 207 Civilization of the Middle East (3) (MPF)  
GEO 208 The Rise of Industrialism in East Asia (3) (MPF) **or**  
ITS 208 The Rise of Industrialism in East Asia (3) (MPF) **or**  
SOC 208 The Rise of Industrialism in East Asia (3) (MPF)  
BWS 209 Civilization of Africa (3) (MPF) **or**  
GEO 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 197 World History to 1500 (3) (MPF)  
HST 198 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)  
POL 221 Modern World Governments (4)  
POL 271 World Politics (4)

### Natural Sciences

*Take nine (9) hours. One course must include a laboratory.*

### Biological Science

*Select at least three (3) hours*

BIO 113 Animal Diversity (4) (MPF, LAB)  
BIO 114 Principles of Biology (4) (MPF, MPT, LAB)  
BIO 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**  
BIO 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)  
BIO 121 Environmental Biology (3) (MPF, MPT)  
BIO 131 Plants, Humanity, and Environment (3) (MPF, MPT)  
BIO 161 Principles of Human Physiology (4) (MPF, LAB)  
BIO 171 Human Anatomy and Physiology (4) (MPF, LAB)  
BIO 176 Ecology of North America (3) (MPF, MPT)

BIO 191 Plant Biology (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)

### Physical Science

*Select at least three (3) hours*

CHM 111 Chemistry in Modern Society (4) (MPF, LAB)  
CHM 141 College Chemistry (3) (MPF)  
CHM 144 College Chemistry Lab (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 118 Introduction to Atmospheric Science (3) (MPF)  
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)

## Transfer Assurance Guides (TAGS)

Transfer Assurance Guides (TAGs) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio University and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher-education system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.

TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged. More information can be found on the Ohio Board of Regents website <http://www.ohiohighered.org/transfer/tag>.

## Career-Technical Assurance Guides (CTAGS)

Students who successfully complete specified technical programs are eligible to have technical credit transfer to public colleges and universities. This transfer of credit is described in Career Technical Assurance Guides (CTAGs). CTAGs are advising tools that assist students moving from Ohio secondary and adult career-technical institutions to Ohio public institutions of higher education. For more information, visit the Ohio Board of Regents website <http://www.ohiohighered.org/transfer/ct2>.

## Limited Admission to Programs

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

- **College of Arts and Science**  
**Speech pathology and audiology:** Selective admission based on cumulative GPA (3.00) and pre-major courses GPA (3.00). Student must complete SPA 127, SPA 316, SPA 222, and SPA 223 before accepted to the major.
- **College of Creative Arts:** Contact the department as soon as possible for specific requirements.  
**Architecture:** 3.00 GPA; 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 education:** Completion of a minimum of six semester hours of studio art, enrollment in an additional six hours of studio art, completion of ART 195 and either ART 295 or 296, and submission of a portfolio. 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 and be enrolled in another 6 credits of studio art to be eligible to submit a portfolio. Enrollment is on a space-available basis. Contact the art department as soon as possible for specific requirements.

**Interior design:** 3.00 GPA; 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.

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

**Adolescent Young Adult and Foreign Language Education:** 45 semester hours with a 2.75 GPA 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 2.75 GPA 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 Department of Family Studies and Social Work.

**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 2.75 GPA; and 100 hours service work with persons with exceptionalities. Enrollment is on space-available basis.

- **College of Engineering and Computing:** Contact the dean's office. If you have an associate's degree, special agreements may apply between the transfer institution and Miami. Note that engineering technology coursework will generally not apply to requirements for engineering majors.

- **Farmer School of Business:** To be admitted to the Farmer School of Business, a student must have earned 30 graded credit hours. Students must have also earned an overall GPA of 3.30 or higher in all graded credit hours earned, which must include MTH 151 and ECO 201 (via AP, post-secondary, or transfer courses). More information is available at:

[www.fsb.MiamiOH.edu/offices/academic-advising/transfer](http://www.fsb.MiamiOH.edu/offices/academic-advising/transfer).

Questions may be directed to the FSB Student Services Office at (513) 529-1712.

## Applying a Transfer Course to the Global Miami Plan

If you believe a course taken at another university or college satisfies the spirit of the Global 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 Global Miami Plan. Obtain a petition from the Office of Liberal Education or its website ([www.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)), 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 University 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 University Registrar and the Regional Records and Registration Office.

Most college level courses taken fall term 2010 or after at regionally accredited institutions across the United States will be transferable to Miami University if the student earns a grade of D- or better. Credit earned on a pass/fail basis, credit/no-credit basis, etc., is also transferable if it can be determined the student earned a C or better. Courses taken prior to fall term 2010 are accepted for transfer credit from non-Ohio regionally accredited institutions for grades of C or better. All transferred credit is posted on the student's Miami record without grade.

Some academic courses may not meet the division's general education or department requirements. In that case, the department in which the course is listed will determine its comparability. A course which is not applicable for general education and/or department requirements will transfer as a free elective so long as the course may count in the total credits required for the degree. This does not supersede divisional limits on free electives.

Students who have attended U.S. institutions not fully accredited by a regional accrediting agency must validate their previous coursework by earning 32 semester credits with a 2.00 cumulative average at Miami. The credit for any grade reported as a D- or better will be given upon completion of the 32 hours. Credit earned for any grade reported as a D- or better at two-year institutions not fully accredited will be accepted on a provisional basis and must be validated by earning 32 semester credits with a 2.00 cumulative average at Miami. All credits earned at two-year institutions can transfer only as lower division (100 and 200 level) credit, except that a course taken at the lower division level which bears the same title as an upper division course at Miami will be considered equivalent if validated by the division and/or department in which the course has applicability.

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 degree-granting institution that is recognized by that country's Ministry of Education or equivalent organization. These credits are evaluated

by the University Registrar's Office in consultation with the Academic Divisions.

Students who intend to study abroad are expected to consult with the Study Abroad Office 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 (ACE) (listed in the *National Guide*), 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 is a member of the Servicemembers Opportunity Colleges (SOC). SOC is a consortium of military-friendly institutions with flexible policies that allow mobile servicemembers and their families to complete college degrees.

## Quarter-Semester Conversion

A quarter hour is two-thirds (0.6667) of a semester hour. To convert to semester hours, multiply the quarter hours by 0.6667. To convert semester to quarter hours, multiply by 1.50.

## 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 at least a 2.00 cumulative grade point average.

## Armed Forces Credit

Credit for courses taken at U.S. military services schools will be given on the basis of the (ACE) American Council on Education publication, "*Guide to the Evaluation of Educational Experience in the Armed Services*". To receive transfer credit, you must submit a Joint Services transcript. Students entering the university fall 2012 or after will also be awarded for military training and experience. Also, see "Credit Evaluations" earlier in this section.

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.

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 College of Professional Studies and Applied Sciences chapter for information about degrees in nursing.

## Spring Semester, Summer and Winter Admission

Freshmen may be admitted for spring semester and are eligible for early enrollment in summer and winter terms. Admission to some programs in the College of Creative Arts is available only in the fall semester except by special permission.

## Notification and Acceptance

Dates for notification of admission and your confirmation of acceptance are listed online ([www.MiamiOH.edu/admission/](http://www.MiamiOH.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.MiamiOH.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@MiamiOH.edu](mailto:orientation@MiamiOH.edu). Also, visit our website for complete dates and details about all Orientation programs ([www.MiamiOH.edu/orientation](http://www.MiamiOH.edu/orientation)).

International students will attend orientation approximately 1-2 weeks prior to the start of classes. Contact [international@MiamiOH.edu](mailto:international@MiamiOH.edu) for more information.

## Miami Regional Locations

Miami Regional locations in Hamilton, Middletown and West Chester are commuter campuses and have an open admission policy for first-time 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 may relocate (take the majority of credit hours in Oxford) as a matriculated Miami University student with at least 16 hours of earned Miami University college-level course work (not including developmental 00\_classes, CLEP, AP, Dual Enrollment and PSEOP credit), 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 who want exceptions to these requirements granted must contact the Oxford divisional office.

More information is in the chapter about Miami's Regional Locations (College of Professional Studies and Applied Sciences) and online. To receive further details about admission, financial aid and regional campus scholarships contact:

Office of Admission and Financial Aid  
Miami University Hamilton  
1601 University Blvd.  
Hamilton, OH 45011  
513-785-3111 (Admission)  
513-785-3123 (Financial Aid)  
TTY accessible: 513-785-3211  
[www.regionals.MiamiOH.edu](http://www.regionals.MiamiOH.edu)

Office of Admission & Financial Aid  
Miami University Middletown  
4200 N. 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.regionals.MiamiOH.edu](http://www.regionals.MiamiOH.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

313 Laws

Phone: 513-529-7135

[www.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)

## 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. All students, 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)
  - B. Humanities (3 hours)
  - C. Social Science (3 hours)
- III. Global Perspectives (6 to 9 hours)
  - A. Study Abroad (6 hours fulfills requirement), or
  - B. Global Courses (9 hours), or
  - C. Global 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 related courses (at least 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.

## The Honors Plans

Beginning in Fall Semester 2014, the University Honors Program will support two different plans for graduation: the Honors Plan for Liberal Education, an alternative liberal education plan that applies to honors students in the entering classes of 2010, 2011, 2012, and 2013; and a revised Honors framework, in which the requirements that honors students meet align with the Global Miami Plan, for students in the entering class of 2014 and beyond.

## The Honors Plan for Liberal Education

A traditional strength of Miami University is its emphasis on liberal education. In a broad sense, liberal education refers to education in a variety of disciplines/fields of study that is designed to help students understand and creatively transform human culture and society. While most Miami students develop liberal education skills and abilities by completing the Global Miami Plan, students in the University Honors Program in the entering classes of 2010, 2011, 2012, and 2013 develop these key skills and abilities in an alternative way, which is known as the Honors Plan for Liberal Education. Rather than fulfilling requirements in specific subject areas (e.g., English), honors students in these four graduating classes meet honors learning outcomes. These outcomes are categorized into seven key competency areas: **Written Communication, Inquiry, Critical and**

**Integrative Thinking, Intercultural Understanding, Collaboration, Reflection, and Breadth of Learning.** These areas of competence are aligned with the essential learning outcomes of liberal education that several recent national studies have identified. Students meet honors learning outcomes through Honors Experiences (i.e., honors courses or intensive co-curricular experiences that are approved by the Honors Program).

For those students in the entering classes of 2010, 2011, 2012, and 2013, the Honors Plan is an integral part of a student's curriculum. These students will meet the following set of requirements:

- Major Requirements
- School/Divisional Requirements (Arts and Sciences; Business; Creative Arts; Education, Health & Society; or Engineering and Applied Sciences)
- Liberal Education Requirements (i.e., Honors Plan, which is in lieu of the Global Miami Plan)
- 128 credit hours to graduate

To complete the Honors Plan for Liberal Education and graduate from the University Honors Program, students must:

- a. **Complete a minimum of 9 approved Honors Experiences.** Honors Experiences are learning opportunities that have gone through an approval process that ensures they are aligned with the honors learning outcomes. Honors Experiences are categorized in three tiers (introductory, intermediate and advanced).
- b. **Complete at least one Tier 1 (introductory) Honors Experience and at least one Tier 2 (intermediate) Honors Experience.** These Honors Experiences are part of the total of 9 Honors Experiences that students need to complete. The remaining 7 Honors Experiences may be in any tier (introductory, intermediate, or advanced).
- c. **Fulfill the 5 Breadth of Learning subject areas.** Students covered under this plan must complete at least two credit hours of college-level coursework in each of the following five subject areas: art, humanities, math, natural science, and social science. Students can use AP, IB, CLEP, PSEO, transfer, and Miami coursework for the Breadth of Learning subject areas. Students should view their Degree Audit Report for a list of specific courses that count for each breadth of learning subject area.

All students who meet the above requirements under this plan will graduate from the University Honors Program. Students who meet the above requirements and also attain a cumulative grade point average of 3.50 or higher when they graduate will also receive a "University Honors" transcript notation.

## Revised Honors Framework

Students in the entering class of 2014 and beyond will fulfill the revised Honors framework, to which the University Honors Program will transition starting in Fall Semester 2014. This revised set of requirements align with the liberal education goals and outcomes of the Global Miami Plan, which these students will complete in full (see requirements on page 22). By maintaining the emphasis on integrative learning and interdisciplinary course work, this revised framework will enhance the development of the key skills and abilities that students gain through liberal education. Because the capacity for integrative learning is central to students' personal and professional success, the University Honors Program will renew its focus on challenging students to connect, synthesize, and apply ideas. By completing a set of intellectually stimulating, discussion-based honors experiences, students gain experiential learning, exploring multiple areas of knowledge and using multiple modes of inquiry in order to generate solutions for complex and real-world problems.

This revised framework reorganizes the University Honors Program into two programs of study - University Honors (completed by all Honors students in their first and second years)

and Advanced University Honors (to which Honors students can elect to progress in their third and fourth years) - which provide honors students with access to a wide spectrum of course work and co-curricular experiences. Students will complete the following requirements in these respective tiers:

- **University Honors:** Students will complete 4 Honors experiences. Generally, these 4 experiences will be fulfilled through the Honors cluster plus 2 additional curricular or co-curricular experiences. Once students have completed these requirements by the end of their second year, they can choose to leave the Honors Program or progress on to Advanced University Honors.
- **Advanced University Honors:** Students will complete 4 Honors experiences beyond those that they fulfilled at the University Honors level. Students will take a two-semester Advanced Interdisciplinary Workshop, along with 2 additional curricular or co-curricular experiences.

## 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 extended 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.

Extended study and/or Plus One Option forms, 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, the Office of Community Engagement and Service or [www.MiamiOH.edu/servicelearning](http://www.MiamiOH.edu/servicelearning).

## 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 Composition and Rhetoric for Second-Language Writers (4)  
 ENG 111 Composition and Rhetoric (3)  
 ENG 112 Composition and Literature (3)

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

#### IIA. Fine Arts (3 hours minimum)

ARC 107 Global Design (3) IIB, Cul  
 ARC 188 Ideas in Architecture (3) IIB, H  
 ARC 221,222 History of Architecture I, II (3, 3) IIB, 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/BWS 276 Introduction to the Art of the Black Diaspora (3) IIB, Cul, H  
 ART 283 Modern America (3) IIB, Cul  
 ART 286 China, Korea, and Japan (3) IIB, Cul, H  
 CCA 111 Innovation, Creativity and Design Thinking (3) V  
 MUS/AMS 135 Understanding Jazz: Its History & Context (3) IIB, Cul, H  
 MUS 181 Music in our Lives (3)  
 MUS 184 Opera: Passport to the Liberal Arts (3) IIB, Cul  
 MUS 185 Diverse Worlds of Music (3) IIB, IIB, Cul, H  
 MUS 186 Global Music for the I-Pod (3) IIB, IIB, Cul  
 MUS 188 The Music of Russia (3)  
 MUS 189 Great Ideas in Western Music (3) H  
 MUS 211,212 History of Western Music (3, 3) Cul, H  
 MUS/IMS 221 Music Technologies (3) V  
 MUS 287 Enter the Diva: Women in Music (3) IIB, Cul  
 POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIB, Cul  
 THE 101 Introduction to Theatre: Drama and Analysis (3) \*  
 THE 103 Introduction to Theatre: Production and Performance (1)\*  
 THE 123 Acting for the Non-Major: Text and Performance (3)  
 THE 191 Experiencing Theatre (3) H

\* must be taken concurrently

#### IIB. Humanities (3 hours minimum)

AAA 201 Introduction to Asian/ Asian American Studies (3) IIC, IIB, Cul, H  
 AAA/REL 203 Religions of India (3) IIC, IIB, Cul, H  
 AMS 205 Introduction to American Cultures (3) Cul, H  
 AMS 207 America - A Global Perspective (3) IIB, Cul, H  
 AMS/ENG 247 Appalachian Literature (3) Cul  
 AMS/ENG 248 Asian American Literature (3) Cul  
 ARC 188 Ideas in Architecture (3) IIA, H  
 ARC 221, 222 History of Architecture I, II (3, 3) IIA, 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 283 Modern America (3) IIA, Cul  
 ART 286 China, Korea, and Japan (3) IIA, Cul, H  
 ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3) Cul, H  
 CHI 251 Traditional Chinese Literature 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  
 CHI 257 Chinese Satire (3) IIB, 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/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) IIB, Cul  
 ENG/AMS 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) IIB, 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)  
 GER 151 The German-American Experience (3) Cul, H  
 GER 231 Folk Fairy Tales and Literary Fairy Tales (3) Cul, H  
 GER 232 The Holocaust in German Literature, History, and Film (3) IIB, 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/FST 261 German Film in Global Context (3) IIB, 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) IIB, Cul, H  
 HST 198 World History Since 1500 (3) IIB, 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) IIB, Cul, H  
 HST 296 World History Since 1945 (3) IIB, Cul, H  
 ITL 221 Italy, Matrix of Civilization (3) Cul, H  
 ITL/AMS/FST 222 Italian American Culture (3) Cul  
 JPN 231 Tales of the Supernatural in English Translation (3) Cul, H  
 JRN 101 Introduction to Journalism (3)  
 KNH 292 Dance, Culture, and Contexts (3)  
 MAC/FST/IDS 206 Diversity and Culture in American Film (3) Cul  
 MUS/AMS 135 Understanding Jazz, Its History and Context (3) IIA, Cul, H  
 MUS 184 Opera: Passport to the Liberal Arts (3) IIB, Cul  
 MUS 185 Diverse Worlds of Music (3) IIA, IIB, Cul, H  
 MUS 186 Global Music for the I-Pod (3) IIA, IIB, Cul  
 MUS/WGS 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) H  
 PHL 104 Purpose or Chance in the Universe (3) H  
 PHL 105 Theories of Human Nature (3) H  
 PHL 106 Thought and Culture of India (3) Cul, H  
 PHL 131 Introduction to Ethics (3)  
 POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIB, Cul



POR/BWS/ENG/WGS/FST 383 By or About (Afro-) Brazilian Women (3) IIB, Cul  
 REL 101 American Religious Encounters (3)  
 REL/RUS 133 Imagining Russia (3) IIB, Cul, H  
 REL 275 Introduction to the Critical Study of Biblical Literature (3) H  
 REL 286 Global Jewish Civilization (3) IIB, Cul, H  
 REL 314 Social and Religious 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)  
 RUS/ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) IIB, Cul, H  
 RUS 257/ENG 267 Russian Literature in English Translation: From Pasternak to the Present (3) IIB, Cul, H  
 SPN 315 Introduction to Hispanic Literature (3)  
 WGS 202 Introduction to GLBT Studies (3) Cul  
 WST 201 Self and Place (3) Cul

### **IIC. Social Science (3 hours minimum)**

AAA 201 Introduction to Asian/ Asian American Studies (3) IIB, IIB, Cul, H  
 AAA 207 Asia and Globalization (3) IIB, Cul  
 AAA/BWS/PSY 210 Psychology Across Cultures (3) IIB, Cul  
 ATH 145 Lost Cities & Ancient Civilizations (3) IIB, Cul, H  
 ATH 155 Introduction to Anthropology (4) IIB  
 ATH 175 People of the World (3) IIB, Cul  
 ATH 185 Cultural Diversity in the U.S. (3) IIB, Cul  
 ATH 405 Food, Taste, and Desire (3) IIB, Cul  
 BWS/GEO 209 Civilization of Africa (3) Cul, H  
 BWS 151 Introduction to Black World Studies (4) Cul, H  
 CIT/CSE 262 Technology, Ethics, and Global Society (3) IIB  
 CJS 101 Introduction to the Criminal Justice Studies (3)  
 CJS 451 Comparative Justice Systems (3) IIB  
 COM 134 Introduction to Speech Communications (3)  
 COM 136 Introduction to Interpersonal Communication (3)  
 ECO 131 Economic Perspectives on Inequality in America (3)  
 ECO 201 Principles of Microeconomics (3)  
 ECO 202 Principles of Macroeconomics (3)  
 EDL 232 Introduction to Community-Based Leadership (3)  
 EDP 101 Critical Issues in the Psychology of the Learner (3)  
 EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
 EDP/DST/SOC 272 Introduction to Disability Studies (3) Cul  
 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, Cul  
 GEO 111 World Regional Geography: Patterns and Issues (3) Cul  
 GEO/SJS 159 Creating Global Peace (3) IIB, Cul  
 GEO 201 Geography of Urban Diversity (3) Cul  
 GEO 207 Civilization of the Middle East (3) Cul, H  
 GEO/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) IIB, Cul, H  
 GTY 154 Aging in American Society (3)  
 IDS 159 Strength Through Cultural Diversity (3) IIB, Cul  
 ITS 201 Introduction to International Studies (3) IIB, IIB, Cul, H  
 KNH 188 Physical Activity and Health (3)  
 KNH 206 AIDS: Etiology, Prevalence, and Prevention (3)  
 KNH 214 Global Well-Being (3) IIB, Cul  
 KNH 242 Personal Health (3)  
 KNH 276 The Meaning of Leisure (3) H  
 KNH/BWS/SOC 279 African Americans in Sport (3) H  
 LAS 207 Latin America before 1910 (3) Cul, H  
 LAS 208/ATH 206 Introduction to Latin America (3) IIB, Cul, H  
 MAC 143 Introduction to Media (3)  
 MGT 111 Introduction to Business (3)  
 POL 101 Politics and National Issues (3)  
 POL 102 Politics and Global Issues (3) IIB  
 POL 142 American Politics and Diversity (3) Cul  
 PSY 111 Introduction to Psychology (4)  
 SJS/SOC 165 Introduction to Social Justice Studies (3)  
 SOC 151 Social Relations (4) Cul  
 SOC 153 Sociology in a Global Context (3) IIB, Cul  
 SPA 127 Introduction to Communication Disorders (3)

SPA 211 Deaf Culture and Community (3) Cul  
 SPA 223 Theories of Language Development (3)  
 SPA/DST 312 Deaf Culture: Global, National and Local Issues (3) IIB, Cul  
 WGS 201 Introduction to Women's Studies (3) IIB, Cul

## **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 207 Asia and Globalization (3) IIB, Cul  
 AAA/BWS/PSY 210 Psychology Across Cultures (3) IIC, Cul  
 AMS 207 America - A Global Perspective (3) IIB, H  
 ARC 107 Global Design (3) IIA, Cul  
 ART/BWS 276 Introduction to the Art of the Black Diaspora (3) IIA, Cul, H  
 ATH/FST 135 Film as Ethnography (1) Cul  
 ATH 145 Lost Cities & Ancient Civilizations (3) IIC, Cul, H  
 ATH 155 Introduction to Anthropology (4) IIC  
 ATH 175 Peoples of the World (3) IIC, Cul  
 ATH 185 Cultural Diversity in the U.S. (3) IIC, Cul  
 ATH 358 Travelers, Migrants, and Refugees: Transnational Migration and Diasporic Communities (3)  
 ATH 361 Language and Power (3)  
 ATH 405 Food, Taste, and Desire (3) IIC, Cul  
 BTE 402 Cross Cultural Leadership Skills (3)  
 BWS 156 Introduction to Africa (4) Cul  
 CEC 266 Metal on Metal: Engineering and Globalization in Heavy Metal Music (3) V, Cul  
 CHI 257 Chinese Satire (3) IIB, Cul  
 CIT 448 Global and Strategic Issues in Information Technology (3)  
 CJS 451 Comparative Justice Systems (3) IIC  
 EDT 202 Global Childhood Education: Diversity, Education & Society (3)  
 EDT 221 Teaching English Language Learners in PK-12: Culture & Second Language Acquisition (3) Cul  
 EDT 323 Teaching English Language Learners in PK-12: Instructional Theories & Practices (3) Cul  
 EDT 425 Teaching English Language Learners in PK-12: Active Learning & Literacy (3)  
 ENG 108 U.S. Cultures & Composition for Second-Language Writers (4) 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) IIC, Cul  
 GEO/SJS 159 Creating Global Peace (3) IIB, Cul  
 GER 232 The Holocaust in German Literature, History, and Film (3) IIB, Cul, H  
 GER/FST 261 German Film in Global Context (3) IIB, Cul, H  
 GTY 260 Global Aging (3) 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  
 HST 296 World History Since 1945 (3) IIB, Cul, H  
 IDS 159 Strength Through Cultural Diversity (3) IIC, Cul  
 ITS 201 Introduction to International Studies (3) IIC, Cul, H  
 KNH 214 Global Well-Being (3) IIC, Cul  
 LAS 208/ATH 206 Latin American Civilization (3) IIC, Cul, H  
 MUS 185 Diverse Worlds of Music (3) IIA, IIB, Cul, H  
 MUS 186 Global Music for the I-Pod (3) IIA, IIB, Cul  
 POL 102 Politics and Global Issues (3) IIC  
 POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIA, IIB, Cul  
 POR/BWS/ENG/WGS/FST 383 By or About (Afro-) Brazilian Women

(3) IIB, Cul

REL/RUS 133 Imagining Russia (3) IIB, Cul, H

REL 286 Global Jewish Civilization (3) IIB, Cul, H

RUS/ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) IIB, Cul, H

RUS 257/ENG 267 Russian Literature in English Translation: From Pasternak to the Present (3) IIB, Cul, H

SJS/SOC 487 Globalization, Social Justice and Human Rights (3)

SOC 153 Sociology in a Global Context (3) IIC, Cul

SPA/DST 312 Deaf Culture: Global, National and Local Issues (3) IIC, Cul

SPN 292 Language and the Latin American Diaspora (3) Cul, H

WGS 201 Introduction to Women's Studies (3) IIC, Cul

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.

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

### IVA. Biological Science (3 hours minimum)

BIO 101 Biotechnology: Coming of Age in the 21st Century (3)

BIO 113 Animal Diversity (4) LAB

BIO 114 Principles of Biology (4) LAB

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) LAB

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) LAB

BIO 121 Environmental Biology (3)

BIO 126 Evolution: Just a theory? (3)

BIO 131 Plants, Humanity, and Environment (3)

BIO 155 Field Botany (3) LAB

BIO 161 Principles of Human Physiology (4) LAB

BIO 171 Human Anatomy and Physiology (4) LAB

BIO 176 Ecology of North America (3)

BIO 181 Medicinal and Therapeutic Plants (3)

BIO 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 Parasitology and Mycology Labs (1) LAB

MBI 161 Elementary Medical Microbiology (4) LAB

### IVB. Physical Science (3 hours minimum)

CHM 111 Chemistry in Modern Society (3)

CHM 111L Chemistry in Modern Society Laboratory (1) LAB

CHM 131 Chemistry of Life Processes (4) LAB

CHM 141, 144 College Chemistry/College Chemistry Laboratory (3, 2) LAB

CHM 141R, 144 College Chemistry/College Chemistry Laboratory (4, 2) MPF

CHM 144M College Chemistry Laboratory for Majors (2) LAB

EDT 181, 182 Physical Science (4, 4) LAB

GEO 121 Earth's Physical Environment (4) LAB

GEO 122 Geographic Perspectives on the Environment (3)

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 118 Introduction to Atmospheric Science (3)

PHY 121 Energy and Environment (3)

PHY 131 Physics for Music (3)

PHY 141 Physics in Sports (3)

PHY 171,172 College Physics (3, 3)

PHY 173, 174 College Physics Laboratory (1, 1) LAB

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/CLS 303/ENG 303/GER 309/SPN 303 Introduction to Linguistics (3)

CCA 111 Innovation, Creativity and Design Thinking (3) IIA

CEC 266 Metal on Metal: Engineering and Globalization in Heavy Metal Music (3) IIB, Cul

CSE 151 Computers, Computer Science, and Society (3)

CSE 163 Introduction to Computer Concepts and Programming (3)

CSE 243 Problem Analysis Using Computer Tools (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)

MUS/IMS 221 Music Technologies (3) IIA

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, IIBB, H

AAA/REL 203 Religions of India (3) IIB, IIBB, H

AAA 207 Asia and Globalization (3) IIB, IIBB

AAA/BWS/PSY 210 Psychology Across Cultures (3) IIC, IIBB

AMS 205 Introduction to American Cultures (3) IIB, H

ARC 107 Global Design (3) IIA, IIBB

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/BWS 276 Introduction to the Art of the Black Diaspora (3) IIA, IIBB, H

ART/JPN 279 Buddhism and Culture: China and Japan (3) IIB, H

ART 283 Modern America (3) IIA, IIB

ATH 135 Film as Ethnography (1) IIBB

ATH 145 Lost Cities & Ancient Civilizations (3) IIC, IIBB

ATH 175 Peoples of the World (3) IIC, IIBB

ATH 185 Cultural Diversity in the U.S. (3) IIC, IIBB

ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3) IIB, H

ATH 405 Food, Taste, and Desire (3) IIC, IIBB

BWS 151 Introduction to Black World Studies (4) IIC, H

BWS 156 Introduction to Africa (4) IIBB

BWS/GEO 209 Civilization of Africa (3) Cul, H

CEC 266 Metal on Metal: Engineering and Globalization in Heavy Metal Music (3) IIBB, V

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

CHI 257 Chinese Satire (3) IIB, IIBB

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

EDP 272 Introduction to Disability Studies (3) IIB

EDT 221 Teaching English Language Learners in PK-12: Culture & Second Language Acquisition (3) IIBB

EDT 323 Teaching English Language Learners in PK-12: Instructional Theories & Practices (3) IIBB

ENG 108 U.S. Cultures & Composition for Second-Language Writers (4) IIBB

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

## Foundation Courses That Meet the Historical Perspective (H) Requirement

- ENG/AMS/AAA 248 Asian American Literature (3) IIB  
 ENG/LAS 254 Latino/a Literature and the Americas (3) IIB, IIBB  
 FRE 131 Masterpieces of French Literature in Translation (3) IIB, IIBB  
 FRE 202 Critical Analysis of French Culture (3) IIB, IIBB  
 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) IIC, IIBB  
 GEO 111 World Regional Geography: Patterns and Issues (3) IIC  
 GEO/SJS 159 Creating Global Peace (3) IIC, IIBB  
 GEO 201 Geography of Urban Diversity (3) IIC  
 GEO 207 Civilization of the Middle East (3) IIC, H  
 GEO/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 232 The Holocaust in German Literature, History, and Film (3) IIB, IIBB, 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/FST 261 German Film in Global Context (3) IIB, IIBB, 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  
 GTY 260 Global Aging (3) IIBB  
 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, IIBB, H  
 HST 198 World History Since 1500 (3) IIB, IIBB, 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, IIBB, H  
 HST/LAS 260 Latin America in the United States (3) IIB, IIBB, H  
 HST 296 World History Since 1945 (3) IIB, IIBB, H  
 IDS 159 Strength Through Cultural Diversity (3) IIC, IIBB  
 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, IIBB, H  
 JPN 231 Tales of the Supernatural in English Translation (3) IIB, H  
 KNH 214 Global Well-Being (3) IIC, IIBB  
 LAS 207 Latin America before 1910 (3) IIC, H  
 LAS 208/ATH 206 Introduction to Latin America (3) IIC, IIBB, H  
 MAC/FST/IDS 206 Diversity and Culture in American Film (3) IIB  
 MUS/AMS 135 Understanding Jazz: Its History and Context (3) IIA, IIB, IIBB, H  
 MUS 184 Opera: Passport to the Liberal Arts (3) IIA, IIB  
 MUS 185 The Diverse Worlds of Music (3) IIA, IIB, IIBB, H  
 MUS 186 Global Music for the I-Pod (3) IIA, IIB, IIBB  
 MUS 211 History of Western Music I: Antiquity to Baroque (3) IIA, 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  
 PHL 131 Introduction to Ethics (3)  
 POL 142 American Politics and Diversity (4) IIC  
 POR/BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3) IIA, IIB, IIBB  
 POR/BWS/ENG/WGS/FST 383 By or About (Afro-) Brazilian Women (3) IIB, IIBB  
 REL/RUS 133 Imagining Russia (3) IIB, IIBB, H  
 REL 286 Global Jewish Civilization (3) IIB, IIBB, H  
 RUS 137 Russian Folklore (3) IIB, IIBB  
 RUS/ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) IIB, IIBB, H  
 RUS 257/ENG 267 Russian Literature in English Translation: From Pasternak to the Present (3) IIB, IIBB, H  
 SOC 151 Social Relations (4) IIC  
 SOC 153 Sociology in a Global Context (3) IIC, IIBB  
 SPA 211 Deaf Culture and Community (3) IIC  
 SPA/DST 312 Deaf Culture: Global, National and Local Issues (3) IIC, IIBB  
 SPN 292 Language and the Latin American Diaspora (3) IIBB, H  
 WGS 201 Introduction to Women's Studies (3) IIC, IIBB  
 WGS 202 Introduction to GLBT Studies (3) IIB  
 WST 201 Self and Place (3) IIB  
 AAA 201 Introduction to Asian/ Asian American Studies (3) IIB, IIC, IIBB, Cul  
 AAA/REL 203 Religions of India (3) IIB, IIBB, Cul  
 AMS 205 Introduction to American Cultures (3) IIB, Cul  
 AMS 207 America - A Global Perspective (3) IIB, IIBB, H  
 ARC 188 Ideas in Architecture (3) IIA, IIB  
 ARC 221, 222 History of Architecture I, II (3, 3) IIA, IIB  
 ART 185 India and Southeast Asia (3) IIA, IIB, Cul  
 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/BWS 276 Introduction to the Art of the Black Diaspora (3) IIBB, Cul  
 ART/JPN 279 Buddhism and Culture: China and Japan (3) IIB, Cul  
 ART 286 China, Korea, and Japan (3) IIA, IIB, Cul  
 ATH 145 Lost Cities & Ancient Civilizations (3) IIC, IIBB, Cul  
 ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3) IIB, Cul  
 BWS 151 Introduction to Black World Studies (4) IIC, Cul  
 BWS/GEO 209 Civilization of Africa (3) Cul  
 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, Cul  
 FRE 131 Masterpieces of French Literature in Translation (3) IIB, IIBB, Cul  
 FRE/GER/RUS 212/HST 211 Secular Jewish Culture From the Enlightenment to Zionism (3) IIB, Cul  
 FRE/FST/GER 255 Visual Representations of the Holocaust (3) IIB, Cul  
 GEO 207 Civilization of the Middle East (3) IIC, Cul  
 GEO/ITS/SOC 208 The Rise of Industrialism in East Asia (3) IIC, Cul  
 GER 151 The German-American Experience (3) IIB, Cul  
 GER 231 Folk Fairy Tales and Literary Fairy Tales (3) IIB, Cul  
 GER 232 The Holocaust in German Literature, History, and Film (3) IIB, IIBB, Cul  
 GER 251 German Literature in Translation: Changing Concepts of the Self (3) IIB, Cul  
 GER 252 Jews and German Culture (3) IIB, Cul  
 GER/FST 261 German Film in Global Context (3) IIB, IIBB, Cul  
 GER 321 Cultural Topics in German-Speaking Europe: 1870 to Present (3) IIB, Cul  
 GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the U.S. (3) IIB, Cul  
 GLG 111 The Dynamic Earth (3) IIB  
 HST 111, 112 Survey of American History (3, 3) IIB, Cul  
 HST 121, 122 Western Civilization (3, 3) IIB, Cul  
 HST 197 World History to 1500 (3) IIB, IIBB, Cul  
 HST 198 World History Since 1500 (3) IIB, IIBB, Cul  
 HST/BWS 224 Africa in History (3) IIB, Cul  
 HST/BWS 225 The Making of Modern Africa (3) IIB, Cul  
 HST 245 The Making of Modern Europe, 1450-1780 (3) IIB, IIBB, Cul  
 HST/LAS 260 Latin America in the United States (3) IIB, IIBB, Cul  
 HST 296 World History Since 1945 (3) IIB, IIBB, Cul  
 ITL 221 Italy, Matrix of Civilization (3) IIB, Cul  
 ITS 201 Introduction to International Studies (3) IIC, IIBB, Cul  
 JPN 231 Tales of the Supernatural in English Translation (3) IIB, Cul  
 KNH 276 The Meaning of Leisure (3) IIC  
 KNH 292 Dance, Culture, and Contexts (3) IIB  
 LAS 207 Latin America before 1910 (3) IIC, Cul  
 LAS 208/ATH 206 Introduction to Latin America (3) IIC, IIBB, Cul  
 MUS/AMS 135 Understanding Jazz: Its History and Context (3) IIA, Cul  
 MUS 185 The Diverse Worlds of Music (3) IIA, IIB, IIBB, Cul  
 MUS 189 Great Ideas in Western Music (3) IIA  
 MUS 211 History of Western Music I: Antiquity to Baroque (3) IIA, Cul  
 PHL 103 Society and the Individual (3) IIB  
 PHL 104 Purpose or Chance in the Universe (3) IIB  
 PHL 105 Theories of Human Nature (3) IIB

PHL 106 Thought and Culture of India and South Asia (3) IIB, Cul  
 PHY 111 Astronomy and Space Physics (3) IVB  
 REL/RUS 133 Imagining Russia (3) IIB, IIIB, Cul  
 REL 275 Introduction to the Critical Study of Biblical Literature (3) IIB  
 REL 286 Global Jewish Civilization (3) IIB, IIIB, Cul  
 REL 314 Religious and Social History of the Jewish People (3) IIB  
 RUS/ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) IIB, IIIB, Cul  
 RUS 257/ENG 267 Russian Literature in English Translation: From Pasternak to the Present (3) IIB, IIIB, Cul  
 SPN 292 Language and the Latin American Diaspora (3) IIIB, Cul  
 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 who are completing the Global Miami Plan for Liberal Education 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.

The Office of Liberal Education website ([www.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)) 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  
 ARB 1 Developing Language Skills in Arabic  
 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 3 World Cultures  
 ATH 4 World Cultures, Policy, and Ecology  
 ATH 5 World Cultures and Social Relations  
 BIO 1 Conservation and the Environment  
 BIO 2 Molecular Processes: From Cells to Whole Plants  
 BIO 3 Plant Ecology  
 BIO 4 Plant Structure and Development  
 BIO 5 Concepts in Physiology

BIO 6 Animal Diversity  
 BLS 1 Law and Commerce  
 BTE 1 Perspective in Sales and Customer Service  
 CCA 1 Experiencing Arts and Culture  
 CCA 2 Principles in Innovation, Creativity, and Design Thinking  
 CHI 1 Developing Language Skills in Chinese  
 CHM 1 Chemistry of Environmental Measurements  
 CHM 2 Chemistry of Life Processes  
 CIT 1 Social and Global Computing  
 CLS 1 Classical Civilization  
 CLS 2 Classical Literature  
 CLS 3 The Classical World: Words and Images  
 CLS 4 The Classical World: Identify and Experience  
 COM 1 Relational Communication and Development in Modern Society  
 COM 4 Communication in Business and Society (offered Summer only)  
 CPB 1 Chemical Engineering Principles  
 CSE 2 Computer Systems  
 CSE 3 Mathematical and Computer Modeling  
 CSE 4 Website and Game Technology  
 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  
 EDP 2 Educational Technology and Instructional Design  
 EDP 3 Technology and Learning  
 ENG 1 Victorian Literature and Culture  
 ENG 2 Women and Literature  
 ENG 3 American Life and Culture Since World War II  
 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  
 ENG 10 Italy and the Renaissance  
 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  
 FST 1 Film in Popular Culture  
 FSW 1 Services and Supports for Children, Youth, and Families (temporarily unavailable on Oxford campus)  
 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 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  
 ISA 1 Quantitative Concepts for Managerial Decision Making  
 ISA 2 Applied Business Statistics  
 ISA 3 Web Mining and Knowledge Management  
 ISA 4 Applications Integration With Enterprise Systems  
 ITL 1 Italy in the Renaissance  
 JPN 1 Developing Language Skills in Japanese  
 JST 1 Jewish Studies  
 LAS 1 Modern Latin American Development  
 LAS 2 People and Power in the Americas  
 LAS 3 Latino Studies: Cultures and Histories of Latinos in the United

## States

LED 1 Urban Culture and Service-Learning  
 MBI 1 Biomedical Science  
 MBI 2 Molecular Genetics  
 MGT 1 Dynamics of Human Behavior in Organizations  
 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 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  
 PHL 1 Ethics  
 PHL 4 Metaphysics and Epistemology  
 PHL 5 Reasoning  
 PHY 1 The Physical World: Contemporary Physics  
 PHY 2 Your Place in the Universe  
 PHY 3 Physics in Living Systems  
 POL 1 Comparative Analysis of Foreign Policy  
 POL 3 National Political Institutions  
 POL 6 Public Management and Leadership  
 POL 7 Russian, East European and Eurasian Studies (cross-listed 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  
 PSY 6 Applied Leadership and Pedagogy  
 REL 2 Historical and Comparative Study of Religion  
 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  
 SEE 1 Engaged Sophomore Experience  
 SJS 1 Social Justice and Inequalities  
 SJS 2 Social Justice, Law and Crime  
 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  
 SOC 6 Medical Sociology  
 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  
 THE 2 London Theatre  
 WGS 1 Gender in Global Context  
 WGS 2 Scholarly Studies of Gender and Sexuality  
 WST 1 Lenses and Legacies - Integrating Knowledge

## Thematic Sequences Available at Dolibois European Campus in Luxembourg

For information, contact the Oxford campus coordinator (513-529-5050).

**LUX 3 European Culture and Society** (Offered during the semester programs and summer workshop)

## 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 and Not-for-Profit Organizations (3)

**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 World Politics (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.

### ARB 1 Developing Language Skills in Arabic.

For students who have completed the first two semesters of college-level Arabic 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. ARB 201 Intermediate Modern Arabic (3); and
2. ARB 202 Intermediate Modern Arabic (3); and
3. ARB 301 Advanced Arabic (3)

### 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:

1. ART 261 Ceramics I (3); and
2. ART 264 Jewelry Design & Metals I (3); and
3. 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),  
or  
ATH 471 Ecological Anthropology (3), or  
GEO 271 Humans and Natural Resources (3)

**Note:** Not open to majors in the Department of Philosophy. Majors in the Departments of Anthropology, Geography, Geology or Environmental Earth must select a minimum of nine hours outside department of major.

#### 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 145 Lost Cities & Ancient Civilizations (3), or  
ATH 175 Peoples of the World (3), or  
ATH 185 Cultural diversity in the US (3); and
2. ATH 231 Foundations of Cultural Anthropology (4); and
3. ATH 303 Native American Culture (4), or  
ATH 304 Native North America: Anthropological Perspectives (3), or  
ATH 305 Latin America: Anthropological Perspectives (3), or  
ATH 306 Russia and Eurasia: Anthropological Perspectives (3), or  
ATH 307 The Middle East: Anthropological Perspectives (3), or  
ATH 308 South Asia: Anthropological Perspectives (3), or

ATH/BWS/LAS/WGS 325 Identity: Race, Gender, Class (3), or  
ATH 331 Social Anthropology (3), or  
ATH 329 Religions of Africa (3), or  
ATH 331 Social Anthropology (3), or  
ATH 335L Multiculturalism in Europe: Anthropological Perspectives (3), or  
ATH 348 Introduction to Medical Anthropology (3), or  
ATH 358 Migrants, and Refugees: Transnational Migration and Diasporic Communities (3), or  
ATH 361 Language and Power (3), or  
ATH/BWS 366 African Oral Traditions (3),  
ATH 368 Key Questions in Psychological Anthropology (3), or  
ATH 378 Doctors, Clinics, and Epidemics (3), or  
ATH 384 Anthropology of Capitalism: Russia (3), or  
ATH 388 Culture, Art, and Artifacts (3), or  
ATH 405 Food, Taste, and Desire (3), or  
ATH 428 Anthropology of Women's Health (3), or  
ATH 434 Anthropology of Democracy & Citizenship (3), or  
ATH 471 Ecological Anthropology (3)

**Note:** Not open to majors in the Anthropology Department.

#### 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 145 Lost Cities & Ancient Civilizations (3), or  
ATH 155 Introduction to Anthropology (4), or  
ATH 175 Peoples of the World (3), or  
ATH 185 Cultural Diversity in the U.S. (3); and
2. One of the following courses on a World Area:  
ATH 303 Native American Cultures (4), or  
ATH 304 Native North America: Anthropological Perspectives (3), or  
ATH 305 Latin America: Anthropological Perspectives (3), or  
ATH 306 Russia and Eurasia: Anthropological Perspectives (3), or  
ATH 307 The Middle East: Anthropological Perspectives (3), or  
ATH 308 South Asia: Anthropological Perspectives (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 409 Sustainability: European challenges and strategies (3), or  
ATH 411 Applied Anthropology (3), or  
ATH 431 Anthropology & Global History (3), or  
ATH 471 Ecological Anthropology (3)

**Note:** Not open to majors in the Anthropology Department.

#### 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 145 Lost Cities & Ancient Civilizations (3), or  
ATH 175 Peoples of the World (3), or  
ATH 185 Cultural Diversity in the U.S. (3); and
2. One of the following courses on a World Area:  
ATH 303 Native American Cultures (4), or  
ATH 304 Native North America: Anthropological Perspectives (3), or  
ATH 305 Latin America: Anthropological Perspectives (3), or  
ATH 306 Russia and Eurasia: Anthropological Perspectives (3), or  
ATH 307 The Middle East: Anthropological Perspectives

- (3), or  
 ATH 308 South Asia: Anthropological Perspectives (3), or  
 ATH 329 Religions of Africa (3), or  
 ATH 335L Multiculturalism in Europe: Anthropological Perspectives (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/WGS 325 Identity: Race, Gender, Class, Sexuality (3), or  
 ATH 331 Social Anthropology (3), or  
 ATH 348 Introduction to Medical Anthropology (3), or  
 ATH 358 Migrants, and Refugees: Transnational Migration and Diasporic Communities (3), or  
 ATH 361 Language and Power (3), or  
 ATH 368 Key Questions in Psychological Anthropology (3), or  
 ATH 384 Anthropology of Capitalism (3), or  
 ATH 388 Culture, Art, and Artifacts (3), or  
 ATH 403 Anthropology of Religion (3), or  
 ATH 405 Food, Taste, and Desire (3), or  
 ATH 428 Anthropology of Women's Health (3), or  
 ATH 434 Anthropology of Democracy & Citizenship (3)

**Note:** Not open to majors in the Anthropology Department.

#### **BIO 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. BIO 131 Plants, Humanity, and Environment (3), or  
 BIO 121 Environmental Biology (3), or  
 BIO 176 Ecology of North America (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 Departments of Geography or Biology.

#### **BIO 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. BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4), or  
 BIO 191 Plant Biology (4); and
2. BIO 203 Introduction to Cell Biology (3); and
3. BIO 342 Genetics (3), or  
 BIO 425 Environmental Plant Physiology (4)

**Note:** Not open to majors in the Department of Biology.

#### **BIO 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. BIO/MBI 115 Biological Concepts (4), or  
 BIO 191 Plant Biology (4); and
2. BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4); and

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

**Note:** Not open to majors in the Department of Biology. Majors in the Department of Microbiology must select a course outside the department of major at the first level.

#### **BIO 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. BIO/MBI 116 Biological Concepts: Structure, Function (4), or  
 BIO 191 General Botany (4); and
2. BIO 203 Introduction to Cell Biology (3); and
3. BIO 314 Plant and Fungal Diversity (3), or  
 BIO 402 Plant Anatomy (3)

**Note:** Not open to majors in the Department of Biology. Majors in the Department of Microbiology must select a course outside the department of major at the first level.

#### **BIO 5 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. BIO/MBI 116 Biological Concepts (4), or  
 BIO 114 Principles of Biology (4); and
2. BIO 203 Introduction to Cell Biology (3); and
3. BIO 305 Human Physiology (4)

**Note:** Not open to majors in the Department of Biology.

#### **BIO 6 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. BIO 113 Animal Diversity (4), or  
 BIO/MBI 115 Biological Concepts (4); and
2. BIO 209 Fundamentals of Ecology (3), or  
 BIO 206 Evolutionary Biology (3); and
3. BIO 311 Vertebrate Zoology (4), or  
 BIO 312 Invertebrate Zoology (4)

**Note:** Not open to majors in the Department of Biology.

#### **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), or  
 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)

**Note:** Not open to majors in business.



**BTE 1 Perspective in Sales and Customer Service.**

Regardless of one's educational or career aspirations, an understanding of how companies, institutions, and governments attract and satisfy their customers is a valuable skill. Organizations reward those employees, whatever their position, who are able to understand and assist in the ongoing process of adding and keeping customers. Students will be encouraged and challenged to expand their understanding beyond the skills of constructing a marketing plan or ad campaign to explore marketing in ways that will extend their sense of moral commitment, ethical understanding and civic action. This Thematic Sequence lays a strong foundation of broad marketing principles with an in-depth look at both the promotional tools to attract new customers and strategies and tactics to service them.

1. BTE 105 Introduction to Marketing (3); and
2. BTE 263 Sales and Promotions (3); and
3. BTE 261 Customer Service & Satisfaction (3)

**CCA 1 Experiencing Arts and Culture**

Students will travel domestically or abroad to a particular urban location(s) (e.g. New York, Paris, Milan, Prague, etc.) for an immersive thematic sequence focused on the global importance and impact of the integrated creative arts (e.g.: architecture, interior design, theatre, studio arts, graphic design, music, etc.). This intensive, experiential program will help a student from any major develop a general knowledge of cultural history, and an understanding of the theories and application of various forms of the creative arts. This sequence assumes no prior knowledge and is intended to make the creative arts interesting, accessible, and valuable for all majors. There are no prerequisites, but students need to have completed 30 hours, or have permission of the instructor. This will ensure that the sequence builds on the foundational liberal education knowledge gained in the first year. Instruction will be provided by a multi-disciplinary team of faculty from the College of Creative Arts.

1. CCA 121 Introduction to the integrated Arts and Culture (3); and
2. CCA 221 Immersion in the Integrated Arts and Culture (3); and
3. CCA 321 Application in the Integrated Arts and Culture (3)

**CCA 2 Principles in Innovation, Creativity, and Design Thinking.**

Sponsored by the Miami Design Collaborative, a multi-disciplinary network that brings together faculty and students from throughout Miami to study and practice principles in innovation and design process, this sequence: provides multi-disciplinary learning opportunities where students can experience different problem-solving orientations inherent in various disciplinary perspectives; offers learning opportunities focused on contemporary issues; fuses design thinking processes inherent in art, psychology, entrepreneurship, and interactive media; and balances theory and practice, allowing students to implement their ideas through project-based learning.

1. CCA 111 Innovation, Creativity and Design Thinking (3)\*; and
2. ART 256 Design, Perception & Audience (3)\*, or  
IMS 253 Building Interactive Objects (3), or  
PSY 271 Cognitive Psychology (3); and
3. ESP 464 Social Entrepreneurship (3), or  
ESP 469 Entrepreneurship in Complex Organizations (3), or  
PSY 453 Human Factors/Ergonomics (4)

**Note:** \*Only one Foundation (MPF) course can count toward both a Foundation requirement and a Thematic Sequence.

**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); and
2. CHI 202 Intermediate Chinese II (3); and
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.

**CIT 1 Social and Global Computing.**

Technology has a pervasive effect on society. How we live, work, and interact has been and will continue to be deeply affected by the use of computers and other technologies. Some researchers even believe that the use of technology is actually changing how our brains work. Understanding the effects of technology on society and the implications of using technology in terms of ethics, communication, and personal interaction is critical. Those who have a greater awareness of these issues will be better positioned for success in all aspects of business and personal endeavors.

1. CIT 157 Foundations of Information Technology I (3), or  
CSE 151 Computers, Computer Science, and Society (3); and
2. CIT/CSE 262 Technology, Ethics, and Global Society (3); and
3. CIT 448 Global and Strategic Issues in Information Technology (3)

**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 (3), or  
CLS 102 Roman Civilization (3), or  
CLS 121 Introduction to Classical Mythology (3); and
2. ART 381 Greek and Roman Architecture (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 in Antiquity (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 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 (3), or  
 CLS 102 Roman Civilization (3), or  
 CLS 121 Introduction to Classical Mythology (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 218 Greek and Roman Erotic Poetry (3), or  
 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), or  
 CLS 310T Arts and Empire in the Classical World and Russia (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.

#### CLS 3 The Classical World: Words and Images.

Classical antiquity was uniquely creative in producing literary and visual forms (epic, lyric, tragedy, comedy, history, rhetoric, philosophic dialogue and the philosophic treatise) by which it communicated socially rooted visions and ideals. This sequence fosters students' grasp of the role form plays in shaping what any culture expresses at the same time it focuses on the historically determined values and visions that were thus expressed. Students will examine ways in which basic forms interact and evolve into new forms (e.g. epic to novel, public speaking in epic and history to full-fledged rhetoric) and the subsequent reception of these forms in other ancient and modern cultures. They will also concentrate on particular conflicts over the ways in which different forms compete for ideological supremacy.

1. CLS 101 Greek Civilization in its Mediterranean Context (3), or  
 CLS 102 Roman Civilization (3), or  
 CLS 121 Introduction to Classical Mythology (3); and
2. CLS 211 Greek and Roman Epic (3), or  
 CLS 212 Greek and Roman Tragedy (3), or  
 CLS 213 Greek and Roman Comedy (3), or  
 CLS 215 Greek and Roman Historians (3), or  
 CLS 216 Roman Cities (3), or  
 ART 381 Greek and Roman Architecture (3), or  
 ART 382 Greek and Roman Sculpture (3), or  
 ART 383 Greek and Roman Painting (3); and

3. CLS 333 The Greeks in the Near East and Central Asia (3), or  
 CLS 331 From Epic to Romance (3), or  
 CLS 323 Discoveries of Archaeology (3), or  
 CLS 334 Egypt in Greco-Roman History and Fiction (3), or  
 ENG 314 Playwriting (4)

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

#### CLS 4 The Classical World: Identity and Experience.

Specific to Classical antiquity was a set of deeply influential institutions, practices, and ideological elaborations that both drew from and interacted with a wide range of other Mediterranean cultures in shaping the day-to-day identities and life experiences of Greeks and Romans as well as the cultures on which they impacted. In this sequence, students explore some of the most basic issues (e.g. gender, religion, public entertainments, race and ethnicity, imperial conquest and domination) associated with these influences and their more specialized consequences in specific geographical, cultural and institutional areas (e.g. Egypt, Jews in Antiquity, The Construction of Age Identities).

1. CLS 101 Greek Civilization in its Mediterranean Context (3), or  
 CLS 102 Roman Civilization (3), or  
 CLS 121 Introduction to Classical Mythology (3); and
2. CLS 210R Race & Ethnicity in Antiquity (3), or  
 CLS 235 Women In Antiquity (3), or  
 CLS 336 Ancient Sexuality, or  
 CLS 235 Women in Antiquity (3); and
3. CLS 310E Conflict in Greco-Roman Egypt (3), or  
 CLS 310J Jews Among Greeks & Romans (3), or  
 CLS 332 Mythology and the Arts (3), or  
 CLS 333 The Greeks in the Near East and Central Asia (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 (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/WGS 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 4 Communication in Business and Society (Offered summer only).

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 (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. (Offered summer only).

**CPB 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:* (CPB 204) grade of C- or better in CHM 141, 142; MTH 151, 251; and CSE 141 or competence in spreadsheets. (CPB/MME 313) grade of C- or better in PHY 182, and CPB 204. (CPB/MME 403) grade of C- or better in MME/CPB 313, MTH 245, and MME/CPB 314.

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

**Note:** Not open to majors in the Department of Chemical, Paper and Biomedical Engineering.

**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), or  
CSE 283 Data Communication and Networks (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 (3), or  
CSE 163 Introduction to Computer Concepts and Programming (3), or  
CSE 174 Fundamentals of Programming and Problem Solving (3); and
2. CSE 251 Introduction to Game Programming (3); and
3. CSE 252 Web Application Programming (3)

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

**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 (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 (3); and
2. Two from the following:  
ECO 321 American Industries and Issues (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 (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. BIO 131 Plants, Humanity, and the Environment (3), or  
BIO 121 Environmental Biology (4), or  
GLG 121 Environmental Geology (3); and
2. GEO 271 Conservation of Natural Resources (3); and
3. PHL 376 Environmental Philosophy (4); and
4. ECO 406 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 Biology and Geology must select a course outside the department of 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 (3); and
2. ECO 202 Principles of Macroeconomics (3); and
3. ECO 315 Intermediate Microeconomic Theory (3); and
4. One of the following:
  - ECO 321 American Industries and Issues (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 (3), or  
BWS/KNH 292 Dance, Culture, and Contexts (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/EDP/DST 272 Introduction to Disability Studies (3), or  
MAC/WGS 461 Gender, Sexuality and Media (3)

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

**EDP 1 Cultural Patterns in Education and the Law Affecting Persons with Disability.**

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. Explores difference as a normally occurring phenomenon of the human condition.

*Prerequisite:* EDP 101: *Psychology of the Learner* (3), or PSY 111: *Introduction to Psychology* (4), or EDP 201: *Human Development and Learning* (3).

1. EDP 256 Psychology of the Exceptional Learner (3); and
2. Two from the following:
  - EDP 272 Introduction to Disability Studies (3)
  - EDP 478 Consultation and Collaboration in Special Education (3)
  - EDP 491 Teaching Students with Mild and Moderate Disabilities (3)

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

**EDP 2 Educational Technology and Instructional Design.**

Designed for students interested in the design, creation, and integration of technology/media for teaching and learning in both K12 and non-K12 environments (e.g. business, higher education, government, military, health care, religious organizations, etc.). Students will learn the processes of designing, developing, and

evaluating the effectiveness of educational/instructional media for classroom and eLearning environments.

1. EDP 279 Technology + Media Literacy and Learning (3), or  
EDP 331 Introduction to Educational Technology (3); and
2. EDP 332 Instructional Design Theory and Models (3); and
3. EDP 333 Evaluation and Assessment for Instructional Design (3)

**EDP 3 Technology and Learning.**

This thematic sequence enhances students' understanding of the relationship among current and emerging technologies and learning. Students will gain experience and skills in creating and using technology systems in unique learning contexts while developing a critical awareness of the affordances and constraints of various technologies for teaching and learning. Throughout the courses is a common theme of exploring the relationship between Technology and Learning. The courses in the sequence include introductory experiences in crafting media for educational purposes as well as experience in applying principles of technology integration in formal and informal learning environments.

1. Choose 1:
  - EDP 279 Technology + Media Literacy and Learning (3), or
  - EDP 331 Introduction to Educational Technology (3); and
2. Choose 2:
  - IMS/EDP 225 Games and Learning (3), or
  - EDP 443 Audiovisual Instruction: Methods, Media, and Technology (3), or
  - EDP 446 Educational Interactive Design (3), or
  - EDP 447 eLearning in K-12 Education (3)

**Note:** Majors in the Department of Interactive Media Studies must select a minimum of nine hours outside department of major.

**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 (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 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. WGS 201 Introduction to Women's Studies (3), or  
ENG/WGS 368 Feminist Literary Theory and Practice (3); and
2. ENG/WGS 232 American Women Writers (3), or  
ENG/WGS 233 British Women Writers (3); and
3. ENG/AMS 390 Studies in American Regionalism: Women's Local Color Fiction (3), or  
ENG/WGS 468 Gender and Genre (3), or  
ENG 490 Special Topics in Literary Study (3)\*, or  
FRE 350B The Woman-Centered Text (3), or  
WGS 180 Minority Women Writers in the U.S. (3), or  
WGS 370A Black Women Writers (3), or  
WGS 370C Gender & Games (3), or  
WGS 370D Feminism and Disability (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. Majors in the Departments of English, Women's, Gender, and Sexuality Studies, and American Studies must select a minimum of nine hours outside department of major.

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

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

### 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 Media, Journalism and Film Studies 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 (3), or  
ENG 133 Life and Thought in English Literature: 20th Century (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 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 (3), or  
ENG/RUS 255 Russian Literature from Pushkin to Dostoevsky in English Translation (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 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 (4); and
2. Two from the following:  
BWS/ENG 336 African American Writing, 1746-1877 (3), or  
BWS/ENG 337 African American Writing, 1878-1945 (3), or  
BWS/ENG 338 African American Writing, 1945 to Present (3), or  
BWS/HST 221 African American History (3), or  
ENG 355 American Literature, 1945-Present (3)

**Note:** Not open to majors in black world studies. Majors in the Departments of English and History must complete a minimum of nine hours outside 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. ENG 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 Grant and Proposal Writings (3), or  
ENG 414/514 Usability and User Experience (3)

### ENG 10 Italy and the Renaissance.

Provides students in the Study Abroad program in Florence, Italy, with an on-site introduction to the arts of the Florentine Renaissance and situates those arts in the Italian cultures that produced and now succeed them. Contextualizing experiences include an introduction to the art form of cinema, with an emphasis on Italian film to engage students with the culture around them; and either an introduction to the Western literatures underlying and embodied in those arts, or an opportunity to investigate and write about contemporary Florentine culture.

Take one course from each tier.

1. ART 399I Italy and the Renaissance (2-3); and
2. ENG 350C Topics in Film: The Art Film (3); and

3. JRN 350 Specialized Journalism: Reporting on European Travel, Culture, and Media (3), or  
ENG 251 Life and Thought in European Literature (3)

**Note:** ART 399, ENG 350, and JRN 350 must be taken in Florence. Only 1 course from Thematic Sequence can count toward a Foundation requirements: If taken to fulfill your thematic sequence, this sequence can fulfill up to 3 credits of your study abroad requirement if you choose to use one of its Florence courses to count toward that requirement.

#### 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 (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 (3), or  
ITS 201 Introduction to International Studies (3)
2. Two from the following:  
FRE/FST/GER 265 European Jewish Cinema (3), or  
FRE/FST 366 French Cinema in Translation (3), or  
FRE/FST 460 Topics in French Cinema Study (3), or  
FST/ITL 262 Italian Cinema (3), or

FST/RUS 272 Cultures and Identities of Eastern Europe: An Introduction through Literature and Film (3), or  
GER/FST 261 German Cinema (3), or  
RUS/FST 263 Soviet and Post-Soviet Russian Cinema (3)

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

#### FST 1 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 (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/WGS 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 and Media, Journalism and Film Studies.

#### 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 department of major.

#### FSW 3 Families and Sexuality Across the Life Course.

The objectives for this thematic sequence are to establish basic concepts and theoretical understandings of individuals in families across the life course, 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 to explore issues related to familial/relationship contexts involving sexuality and sexual behaviors.

1. FSW 281 Child Development in Diverse Families (4); or  
FSW/GTY 466 Later Life Families (3), or  
FSW 481 Adolescent Development in Diverse Families (3); and
2. FSW 365 Family Life Sexuality Education Across Cultures (3); and
3. FSW/WGS 361 Couple Relationships: Diversity and Change (3)

**Note:** Not open to majors in the Department of Family Studies and Social Work. Majors in the Departments of Gerontology and Women, Gender, and Sexuality Studies majors must take a minimum of nine hours outside department of major.

**FSW 4 Children in Families.**

Students develop an in-depth understanding of child and adolescent development that affects contemporary families. Examines issues in contemporary society that affect families with children (e.g., child and adolescent development and family differences, as well as change over the life course).

1. FSW 281 Child Development in Diverse Families (4); and
2. FSW 481 Adolescent Development in Diverse Families (3); and
3. FSW 261 Diverse Family Systems Across the Life Cycle (3), or  
FSW 381 Parent-Child Relations 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 (3); and
2. Two of the following:  
GEO 451 Urban and Regional Planning (3), or  
GEO 454 Urban Geography (3), or  
GEO 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. Majors in black world studies must take a minimum of nine hours outside department of major.

**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 (4); and
2. GEO 221 Regional Physical Environments (3); and
3. BIO/GEO 431 Global Plant Diversity (3), or  
BIO/GEO 432 Ecoregions of North America (3), or  
GEO 333 Global Perspectives on Natural Disasters (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. Majors in the Department of Biology must take a minimum of nine hours outside department of major.

**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 (3); and
2. GEO 211 Global Change (3); and
3. GEO 401 Sustainable Regions (3), or  
GEO 406 Indigenous Peoples and Their Sacred Lands (3), or  
GEO/WGS 436 Women, Gender, and the Environment (3), or  
GEO 461 Migrants & Diasporas (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. Majors in women's, gender and sexuality studies must take a minimum of nine hours outside department of major.

**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 (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. Majors in black world studies must take a minimum of nine hours outside department of major.

**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 (3), or  
GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and U.S. (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 (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 (3), or  
GLG 121 Environmental Geology (3), or  
GLG 141 Geology of National Parks (3); and
2. GLG 244 Oceanography (3); and
3. GLG/LAS/IES 413 Tropical Marine Ecology (5)

**Note:** Not open to majors in the Department of Geology & Environmental Earth Science.

**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 (3), or  
GLG 111 The Dynamic Earth (3), or  
GLG 121 Environmental Geology (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  
BIO 463 Limnology (3)

**Note:** Not open to majors in the Department of Geology & Environmental Earth Science. Majors in the Departments of Geography and Biology must take a minimum of nine hours outside 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 (3), or  
GLG 121 Environmental Geology (3), or  
GLG 141 Geology of National Parks (3); 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 & Environmental Earth Science.

#### 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 (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), or  
FSW/GTY 466 Later Life Families, or  
GTY/SOC/WGS 463 Gender and Aging (3), or  
GTY 472 Race, Ethnicity and Aging (3), or

**Note:** Not open to majors in Sociology or Gerontology. Majors in the Department of Family Studies and Social Work must take a minimum of nine hours outside department of major.

\*Only one Foundation (MPF) course can count toward both a Foundation requirement and a Thematic Sequence.

#### 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 (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 Medical Ethics (4)

**Note:** Not open to majors in the Department of Sociology and Gerontology. Philosophy majors may not take 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.

1. Select two courses from the following:  
ART 313 Early Christian, Byzantine, and Islamic Art (3), or  
ENG 327 Medieval Literature (3), or  
HST 246 Survey of Medieval History (3);
2. And one course from the following:  
ART 480W Feminist Art Histories (3), or  
ARC 405G Seminar on Gothic Architecture (3), or  
HST 313 History of England to 1688 (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 the Departments of Architecture, Art, English, and History must take a minimum of nine hours of courses outside 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.

1. Select three courses from these options:  
ART 480M Special Topics in Medieval Art (3), or  
ART 480W Feminist Art Histories (3), or  
CLS 235 Women in Antiquity (3), or  
HST/WGS 381 Women in Pre-industrial Europe (3), or  
HST/AMS/WGS 382 Women in American History (3), or  
HST 383 Women in Chinese History (3), or  
HST/AMS/WGS 392 Sex and Gender in American Culture (3), or  
HST/WGS 450 Topics in Women's History (3), or  
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 American Studies, Art, Classics, Comparative Religion and Women's, Gender and Sexuality Studies must take a minimum of nine hours outside 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/RUS 133 Imagining Russia (3), or  
ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3); and



2. ATH/RUS 306 Russia and Eurasia: Anthropological Perspectives (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 Russia's War and Peace (3), or  
REL 337 Religions of Russia and Eurasia (3), or  
POL 331 Communism and Soviet Politics, 1917-1991 (3); and
3. ATH 384 Anthropology of Capitalism: Russia (3), or  
GEO 307 Geography of Russia (3), or  
GEO 408 Geography of the Silk Road (The Heart of Asia) (3), or  
ITS 402O Transition to Democracy (3), or  
HST 436 Havighurst Colloquium (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)

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

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

**Note:** Not open to majors in business.

#### ISA 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. ISA 205 Business Statistics (4); and
2. ISA 291 Applied Regression Analysis in Business (3); and
3. ISA/STA 365 Statistical Quality Control (3), or  
ISA 432 Survey Sampling in Business (3), or  
ISA 444 Business Forecasting (3), or  
ISA 491 Introduction to Data Mining in Business (3)

#### ISA 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. ISA 235 Technology and the Intelligent Enterprise (3); and
2. ISA 245 Database Systems and Data Warehousing (3); and
3. ISA 404 Knowledge Management (3)

**Note:** Not open to majors in business.

#### ISA 4 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 sequence 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. ISA 235 Technology and the Intelligent Enterprise (3); and

2. ISA 245 Database Systems and Data Warehousing (3); and
3. ISA 303 Enterprise Systems (3)

**Note:** Not open to majors in business.

#### 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.

1. Select three of the following courses in any order:  
ART 314 Italian Renaissance (3), or  
ENG/ITL 364 From Marco Polo to Machiavelli (3), or  
ENG/ITL 401 Dante's Divine Comedy (3), or  
HST 315 The Renaissance (3), or  
HST 452 Florence in the Time of the Republic 1250-1550 (3)

**Note:** Nine hours minimum must be taken outside 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); and
2. JPN 202 Second Year Japanese (3); and
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.

1. Ancient and Medieval: One of the following courses:  
CLS 310J Jews Among the Greeks and Romans (3), or  
HST 346 Medieval Jewish History (3), or  
HST 442 Ancient Jewish History, 539 BCE-200CE (3), or  
REL 275\* Critical Study of Biblical Literature (3), or  
REL 312\* Religions of the Old Testament/Hebrew Bible (3); and
2. Modern: One of the following courses:  
ENG/FST/GER 265 European Jewish Cinema (3), or  
ENG/FRE/GER 356 Contemporary Jewish Fiction in Europe (3), or  
FRE/GER/RUS 212/HST 211\* Secular Jewish Culture from Enlightenment to Zionism (3), or  
FRE/HST 339 Jews, "Jews," and Modern French Culture (3), or  
FST/RUS 272 Cultures and Identities of Eastern Europe: An Introduction Through Literature and Film (3), or  
GER 252\* The German-Jewish Experience (3), or  
HST 472 Germany 1918-1945 (3); and
3. Take one additional course from either 1 or 2.

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

\*Only one Foundation (MPF) course can count toward both a Foundation requirement and a Thematic Sequence.

#### 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.

1. 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 (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 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.

1. Courses are recommended to be taken as listed below; however, three courses may be taken in any order:  
ATH 305 Latin America: Anthropological Perspectives (3)  
GEO 405 The Caribbean in Global Context (3)  
LAS 208 Latin American Civilization After 1825 (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 take a minimum of nine hours outside department of major.

### **LAS 3 Latino Studies: Cultures and Histories of Latinos in the United States**

This sequence gives students a broad understanding of the diverse histories and cultures of Latina/o populations living in the United States and emphasizes how Latina/o cultural politics in the United States are shaped in relation to both cultural formations within Latin American and racial/ethnic dynamics within the United States.

1. LAS 208 Introduction to Latin America (3)\*
2. LAS/ENG 254 Latino/a Literature and the Americas (3)\*  
LAS/HST 260 Latin America in the United States (3)\*
3. ENG/AMS 348 Ethnic American Literatures (3)  
LAS/SPN 332 Latin American Popular Culture (3)

\*Only one Foundation (MPF) course can count toward both a Foundation requirement and a Thematic Sequence.

### **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; and
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 (4); and
2. BIO 232 Human Heredity (3), or  
BIO 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 Biology or Microbiology.

### **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/BIO 116 Biological Concepts: Structure, Function Cellular and Molecular Biology (4); and
2. MBI 201 General Microbiology (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 Introduction to Management & Leadership (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.

### **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: geometries without parallel lines, geometries 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 251 (4) or MTH 249/249H (5).

1. MTH 222 Introduction to Linear Algebra (3); and
2. MTH 331 Proof: Introduction to Higher 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.

### **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 (5), or  
MTH 153 Calculus I (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. ECE 345 Applied Probability and Statistics for Engineers (3),  
or  
STA 301 Applied Statistics (3), or  
STA 368 Introduction to Statistics (4)

**Note:** Not open to majors in the Departments of Mathematics. 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 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.

### **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. A minimum of two ensemble experiences. 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 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 500 B.C. into future, naval warfare from 1500 into the future, 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 leaders, 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 (4), or  
POL 387 Comparative Security Issues (3), or  
HST 219 U.S. Diplomatic History to 1914 (3), or  
HST 222 U.S. Foreign Relations Since 1898 (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 Foreign Policy Analysis (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)

**Note:** Students must select a minimum of nine hours outside 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 these 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 (3); and
3. NSC 302 Naval Operations and Seamanship (3)

**Note:** Open to all majors.

### **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 Introduction to Ethics (3); and
2. Select two of the following:  
PHL 311 Ethical Theory (4), or  
PHL 312 Contemporary Moral Problems (4), or  
PHL/WGS 355 Feminist Theory (3), or  
PHL/ENG/PSY/REL 360A Confronting Death (4), or  
PHL 375 Medical Ethics (4), or  
PHL 376 Environmental Philosophy (4)

**Note:** Not open to majors in the Department of Philosophy. Students must take nine hours outside 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 (3), or PHL 104 Purpose or Chance in the Universe (3), or PHL 105 Theories of Human Nature (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 (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 (4,1); and
2. PHY 281, 293 Contemporary Physics I and Laboratory (3, 2); and
3. Experimental Option: PHY 292, 294 Electronic Instrumentation (3, 2), or Theoretical Option: PHY 286 Introduction to Computational Physics (3)

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

#### **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 (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.

#### **PHY 3 Physics in Living Systems.**

This sequence provides the physical and biological foundations for understanding the role physics plays in living systems. There are two options for emphasis; the biophysical option develops and explores physical models used in understanding biological systems and biological phenomena; the medical option emphasizes the physical basis of the various diagnostic and therapeutic technologies used in medicine.

1. PHY 182/184 The Physical World/Physics Laboratory (4, 1); and
2. BIO 203 Introduction to Cell Biology (3); and
3. PHY 421 Molecular and Cellular Biophysics (4), or PHY 422 Physics for Medicine and Biology (4)

**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 World Politics (4); and
2. POL 374 Foreign Policy Analysis (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 241 first, then select three additional courses from the options listed. Sequence of four courses.

1. POL 241 The American Political System (4); and
2. Select three from these:  
POL 343 American Presidency (3), or  
POL 344 U.S. Congress (3), or  
POL 352 Constitutional Law and Politics (4), or  
POL 356 Mass Media and Politics (3)

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

#### **POL 6 Public Management and Leadership.**

Students will gain an understanding of the importance and workings of governmental agencies, their influence on society and daily life, and their prospects for promoting the general welfare. Furthermore, students will be confronted with both theoretical issues and practical problems in the courses, encouraging them to be real-world problem solvers through an understanding of the "fourth branch" of government, the bureaucracy.

1. POL 261 Public Administration (4); and
2. Select two from the following:  
POL 362 Public Management, Leadership, and Administrative Politics (3), or  
POL 364 Federalism and Intergovernmental Relations (3), or  
POL 467 Public Budgeting (3), or  
POL 468 Public Personnel Administration (3)

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

#### **POL 7 Russian, East European and Eurasian Studies (cross-listed with HST 3).**

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/RUS 133 Imagining Russia (3), or ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3); and

2. ATH/RUS 306 Russia and Eurasia: Anthropological Perspectives (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 337 Religions of Russia and Eurasia (3), or  
POL 331 Communism and Soviet Politics, 1917-1991 (3); and
3. ATH 384 Anthropology of Capitalism: Russia (3), or  
GEO 307 Geography of Russia (3), or  
GEO 408/508 Geography of the Silk Road (The Heart of Asia) (3), or  
HST 436 Havighurst Colloquium (3), or  
ITS 402O Transition to Democracy (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)

Note: Students must take a minimum of nine hours outside the department of major.

#### **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 (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. In this thematic sequence, you will 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 infants, children, adolescents, and their families in diverse contexts.

*Prerequisite:* PSY 111 Introduction to Psychology (4), or EDP 101 Critical Issues in the Psychology of the Learner (3).

1. PSY 231 Developmental Psychology (3); and
2. PSY 332 Child Development (3), or  
FSW 281 Child Development in Diverse Families (3); and
3. PSY 331 Infant Development (3), or  
PSY 333 Adolescent Development (3), or  
FSW/EDP 481 Adolescent Development in Diverse Families (3)

**Note:** Not open to majors in the Department of Psychology. Majors in the Departments of Educational Psychology and Family Studies and Social Work must take a minimum of nine hours outside 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 (4), or EDP 101 Critical Issues in the Psychology of the Learner (3).

1. PSY 231 Developmental Psychology (3); and
2. PSY 334 Adulthood and Aging (3); and

3. BWS/GTY 472 Race, Ethnicity & Aging (3), or  
GTY/FSW 466 The Family in Later Life (3), or  
KNH 471 Sport, Leisure, and Aging (3), or  
SOC/GTY/WGS 463 Gender and Aging (3)

**Note:** Not open to majors in the Department of Psychology. Majors in the Departments of Black World Studies, Educational Psychology, Family Studies and Social Work, Kinesiology and Health, Sociology and Gerontology, and Women's, Gender and Sexuality Studies must take a minimum of nine hours outside 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)

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

#### **PSY 6 Applied Leadership and Pedagogy.**

The redesigned introductory psychology (PSY111) course focuses on developing skills used by psychologists in using evidence to support their beliefs. Students will be invited to participate in leadership training (PSY211) that will train them to lead small discussion groups of introductory psychology students (PSY212) in which the leaders guide students in practicing their use of these critical thinking skills. The final course (PSY 313) promotes reflection on their experience as a discussion leader and provides an opportunity to engage in a facet of their experience in more depth. These goals are achieved by pursuing a project designed as part of their practicum experience in PSY 212, engaging in an additional pedagogical experience, mentoring new discussion leaders or taking another course approved by the faculty member teaching PSY 313.

With respect to the subject-matter of how psychologists/scientists use evidence: Participants in this thematic sequence begin as students "learning" principles of scientific thinking (PSY 111). The second course (PSY 211) affords the students more advanced training in the skills of how scientists use evidence. The third course (PSY 212) affords students the opportunity to serve as guides for students in PSY 111 learning the same principles for the first time. Finally, PSY 313 affords students the opportunity to use their prior experiences as the basis to guided inquiry into the nature of learning and pedagogy.

1. PSY 111 Introduction to Psychology (4); and
2. PSY 211 Psychological Perspectives on Leadership and Pedagogy in the College Classroom (2); and  
PSY 212 Practicum in Leadership and Pedagogy (3); and
3. PSY 313 Advancing in Leadership and Pedagogy (1-3)

#### **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 (3); and
2. REL 312 Religions of the Old Testament/Hebrew Bible (3); and
3. REL 201 Methods for the Study of Religion (3)

**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 (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/HST 230 Topics in Russian Culture and Civilization (3), or  
POL 331 Communism and Soviet Politics, 1917-1991 (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 (3), or  
RUS/ENG 255 Russian Literature from Pushkin to Dostoevsky in English Translation (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:

1. BUS 301 Macro Concepts in Contemporary Business (3); and
2. BUS 302 Micro Concepts in Contemporary Business (3); and
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 (313 Laws Hall or visit [www.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)) before the last 6 hours have been completed. This is a preapproval process.

**SJS 1 Social Justice and Inequalities.**

The goal of this sequence is to introduce students to social justice studies from a sociological perspective, with particular focus on social inequalities. The objectives of the sequence are: (a) to explain how various sociological and philosophical theories of justice contribute differentially to human rights and social justice-based policies, programs, and declarations/covenants at both national and global levels; (b) to evaluate consistencies and disparities between micro- and macro-level efforts to achieve social justice; (c) to develop core sociological concepts and theories across the three levels of courses; (d) to facilitate and guide personal insight and reflection for acting in a morally just way.

1. SOC/SJS 165 Introduction to Social Justice Studies (3); and
2. SOC 305 Introduction to the Sociology of Globalization (3), or  
SOC 225 Work and Occupational Justice (3), or  
AAA 207 Asia and Globalization (3); and
3. SJS/SOC 323 Social Justice and Change (3), or  
SOC/BWS 348 Race and Ethnic Relations (3), or  
SOC 372 Social Stratification (3), or  
SJS/SOC 487 Globalization, Human Rights and Social Justice (3)

**SJS 2 Social Justice, Law, and Crime.**

The goal of this sequence is to introduce students to social justice studies from a sociological perspective, with particular focus on law and crime. The objectives of the sequence are: (a) to explain how various sociological and philosophical theories of justice contribute differentially to justice-based policies, programs and declarations/covenants at both national and global levels; (b) to evaluate consistencies and disparities between micro- and macro-level efforts to achieve social justice; (c) to link core sociological concepts and theories across the three levels of courses; (c) to facilitate personal insights for reflecting and acting in a morally just way.

1. SJS/SOC 165 Introduction to Social Justice Studies (3); and
2. SOC 201 Social Problems (4), or  
SOC 202 Social Deviance (4); and
3. SOC 352 Criminology (3), or  
SOC 409 Systems of Justice (3), or  
SOC 412 Sociology of Law (3), or  
SOC 413 Juvenile Delinquency (3)

**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 (3) or SOC 153 (3) or ATH 155 (3).

1. SOC 262 Research Methods (4); and
2. ATH 265 Introduction to Linguistic Anthropology (4); and
3. ATH 411 Applied Anthropology (3)

**Note:** Not open to majors in the Departments of Sociology and Gerontology or 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* (3) or SOC 153 (3) or BWS 151 *Introduction to Black World Studies* (4).

1. SOC/WGS 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 majors in the Departments of Sociology and Gerontology. Majors in the Departments of Black World Studies and Women's, Gender and Sexuality Studies must take a minimum of nine hours outside department of major.

#### 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 majors in the Department of Sociology and Gerontology.

#### 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/WGS 203 *Sociology of Gender* (3); and
2. SOC/WGS/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 majors in the Department of Sociology and Gerontology. Majors in the Departments of Women's, Gender and Sexuality Studies and Family Studies and Social Work must take a minimum of nine hours outside department of major.

#### SOC 6 Medical Sociology.

This thematic sequence focuses on social factors in health and illness and the structure and function of health care systems globally. Students completing the sequence will be able to articulate differences between the sociological model and medical model of health and illness; explain how health is stratified by social factors such as gender, age, race-ethnicity, and social class; describe the U.S. health care system and contrast it with that of other nations; identify key ethical issues in health care; critically evaluate the stratification and socialization of health care professionals; and analyze the function and structure of various health care settings.

1. SOC 151 *Social Relations* (4), or  
SOC 153 *Sociology in a Global Context* (3); and
2. SOC 257 *Population* (3), or  
SOC 260A *Internship: An Introduction to Applied Sociology and Human Services* (3), or  
SOC 358 *The Sociology of Mental Disorders* (3); and
3. SOC 357 *Medical Sociology* (3)

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

#### 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); or  
SPA 233 *Perspectives of the Human Face* (3); and
3. SPA 427 *Alternative Communication Systems for the Severely Handicapped* (3), or  
EDP 491 *Teaching Students with Mild and Moderate Disabilities* (3).

**Note:** Not open to majors in the Department of Speech Pathology and Audiology. Special Education majors must take a minimum of nine hours outside department of major.

#### SPN 1 Literature and Culture in Spain.

Focuses on the literature of Spain, exploring the relationships between texts, history, and culture. SPN 315, a Foundation course, emphasizes skills in the analysis and interpretation of Spanish texts; SPN 351 explores social and historical circumstances from the Arab occupation of Al Andalus through the period of the Catholic empire, colonial expansion and early modernity; SPN 352 focuses on the cultural history of Spain from the 18th-century to the present, with an emphasis on 20th century Spain. All courses taught in Spanish, and all work is completed in Spanish.

*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); and
2. SPN 361 *Cultural History of Spanish America I* (3); and
3. SPN 362 *Cultural History of Spanish America II* (3)

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

#### 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. ISA 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. ISA/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 Information Systems and Analytics, Manufacturing and Mechanical Engineering, Mathematics and Statistics must take a minimum of nine hours from outside 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 (4), or  
STA 301 Applied Statistics (3), or  
STA 368 Introduction to Statistics (4); and
2. STA 363 Introduction to Statistical Modeling (3); and
3. STA/ISA 333 Nonparametric Statistics (3), or  
STA/ISA 365 Statistical Quality Control (3), or  
STA/ISA 432 Survey Sampling in Business (3)

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

#### **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 (3); and  
THE 103 Theatre Production I Laboratory (1), or  
THE 191 Experiencing Theatre (3); and
2. THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3); and
3. One 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.

#### **THE 2 London Theatre.**

This thematic is an exploration of the rich tradition and contemporary diversity of theatre in London and the historical, cultural and critical context from which they spring. After an

introduction to the art and history of theatre completed in one of two Miami Plan courses at Miami University, students will travel to London for a four-week summer intensive immersion in London theatre-attending performances, thinking critically about them as products of specific historical and cultural contexts, and learning about styles of dramatic expression particular to Britain's theatrical present and past.

1. THE 101 Introduction to Theatre: Drama and Analysis (3), or  
THE 191 Experiencing Theatre (3); and
2. THE 494 London Theatre (3)\*\*
3. THE 392 Modern European Theatre (3)\*\*, or  
THE 393 Cultural, Ethnic, and Gender Issues in Dramatic Literature (3)\*\*, or  
THE 450 Special Topics in Theatre Design and Technology (3)\*\*, or  
THE 491 Theatre History I (3)

\*\*Can only be taken in summer in London; other sections of these courses offered on campus do not count toward the sequence.

#### **WGS 1 Gender in Global Context.**

This sequence focuses on the analysis of the historical, cultural, socioeconomic, and political contexts of gender relations in various parts of the world. Such a global perspective will be predicated on an understanding of the different debates around gender, race, and class that the variety of transnational feminisms has created. Students will demonstrate the ability to apply the fundamental contexts comparing the ways in which gender is constructed and functions in different countries and regions of the world. Students will develop skills of increasing complexity ranging from gender analysis to cross-disciplinary research in international contexts.

1. WGS 201 Introduction to Women's Studies (3); and
2. Choose two of the following options:  
WGS 301 Women and Difference: Intersections of Race, Class, and Sexuality (3)  
WGS/POL 346 Global Gender Politics (3)  
WGS/HST 450 Topics in Women's History (3)  
WGS/REL 333 Religion, Dress, and Status (3)  
WGS/GEO 436 Women, Gender, and the Environment (3)  
WGS 313 Marriage Across Cultures (3)  
WGS/GEO 406 Indigenous Peoples and Their Sacred Lands (3)  
WGS/COM 410B Gender, Information Technology, and Transnational Culture (3)  
WGS/ENG/BWS 437 Black Feminist Theory (3)  
WGS/ENG/AAA 351 Cultural Politics of Gender and Sexuality in Asian/America (3)  
WGS/POR/FST/ENG/BWS 383 By or About (Afro-) Brazilian Women (3)  
WGS 410E Globalization, Islam, & Feminisms (3)

**Note:** Not open to majors in the Department of Women's, Gender, and Sexuality Studies.

#### **WGS 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. WGS 202 Introduction to GLBT Studies (3)\*; and
2. 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 GLBTQ Literature (3), or



SOC/WGS 203 Sociology of Gender (3), or  
SOC/FSW/WGS 221 Human Sexuality (3); and

3. WGS/ENG 435 Queer Theory (3)

\*Only one Foundation (MPF) course can count toward both a Foundation requirement and a Thematic Sequence.

**Note:** Not open to majors in the Department of Women's, Gender, and Sexuality Studies.

**WST 1 Lenses and Legacies - Integrating Knowledge.**

This thematic sequence explores real world problems through multiple disciplinary lenses. With a layered, interdisciplinary approach, students confront various legacies that situate us in the present moment. The sequencing of the courses allows students to move through a process of exploring and positioning themselves in the world, integrating knowledge across disciplines, and then applying solutions. Engaging different themes such as "Self and Place," "Hurricane Katrina," "Health and Community," or "Representing Place and Community," students understand knowledge construction and practical experiences using inquiry-based and integrative methods. We note that the learning outcomes of the course will remain constant as topics vary.

1. WST 201 Self and Place (3), or  
WST 231 Interdisciplinary Inquiry (3; maximum 6); and
2. WST 301 Interdisciplinary Problems and Questions (3); and
3. WST 322 Developing Interdisciplinary Projects: Art and Politics of Representation (3)

## Thematic Sequences Available at Dolibois European Center in Luxembourg

For information, contact the Oxford Luxembourg Office, 218 MacMillan Hall (513-529-5050).

**LUX 3 European Culture and Society. (Offered during the semester programs and summer workshop)**

This sequence permits students to draw on the variety of European-focused courses available at the Dolibois European Center 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. Students must take at least one course from each of the three groupings for a total of at least nine credit hours. Students may include only one course from the department of their major in the sequence.

## 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 students' 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.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)) 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.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)) 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/BIO 498 Evolution of Human Behavior (3)  
BIS 401 Senior Integrative Seminar (3)  
BLS 465 Ethics, Law, and Business (3)  
BIO 400 Capstone Seminar: Contemporary Issues (3)  
BIO 419R Independent Research in Zoology (3)  
BIO 435 Winter Biology (3)  
BIO 444 Molecular Biology (3)  
BIO 452 Nerve and Muscle Physiology (4)  
BIO 453 Animal Physiological Ecology (4)  
BIO 454 Endocrinology (3)  
BIO 459/469 Methods in Neurophysiology/Neurophysiology (1, 3)  
BIO 462 Environmental Toxicology and Risk Assessment (4)  
BIO 465 Animal Behavior (4)  
BIO 467 Conservation Biology (3)  
BIO 490 Botany Capstone Seminar (1) and  
BIO 477 (2) for research option; or concurrent enrollment in BIO 340 (2) for internship option  
BIO/GEO 496 Biodiversity of Kenya (5)  
BWS/FST/LAS 415 Cuba in Revolution (4)  
BWS/ENG/WGS 432 Feminism and the Diaspora: Women of Color in the U.S. (3)  
BWS/DST/SJS/SOC 470 Social/Political Activism (3)  
CHM 491 Chemistry in Societal Issues (3)  
CHM 492 Independent Research Capstone in Chemistry (3)  
CIT 458 Collaborative System Development and Integration (3)  
CJS 485 Capstone: Seminar in Criminal Justice (3)  
CLS 401 The Age of Pericles (3)  
CLS 402 The Age of Augustus (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 459 Advanced Public Relations (3)  
CPB 471, 472 Engineering Design I, II (2, 2)  
CSE 448, 449 Senior Design Project (2, 1-2)  
CSE 481 Technology for Managing Disease and Disability (3)  
DST/ENG/SPA/COM/SOC 494/EDP 489 Disability in Global and Local Contexts (3)  
ECO 405 Managerial Economics (3)  
ECO 427 The Great Depression Revisited (3)  
EDP 460 Action Research/Problem-based Seminar in Exceptional Education/Developmental Differences (3)  
EDP 456 Advanced Seminar in Evaluation with Evidence-Based Interventions (3)  
EDP 471 Literacy Seminar: Clinical (3; maximum 6): Practicum (3)  
EDT 422 Studies in Educational Issues (3)  
EDT 495 Writing Information Books for Children (3)  
EDT 455 Capstone Seminar: Comparative Education in Europe or China (4)  
ENG 405 Advanced Linguistics: The Research Program of Noam Chomsky (3)  
ENG 406 Discourse Analysis: Speech Acts in Context (3)  
ENG 415 Capstone in Professional Writing (3)  
ENG 460 Issues in Creative Writing (3)  
ENG 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/SOC/WGS 451 Family Violence (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)  
 GLG 497 Trends and Topics in the Geosciences (3)  
 GTY 440G Field Experience in Gerontology (3)  
 HST 400 Senior Capstone in History (3-6)  
 IMS 440 Interactive Media Studies Practicum (4)  
 ISA 495 Managing the Intelligent Enterprise (3)  
 ITS 402 Senior Capstone in International Studies (3)  
 JRN 421 Capstone in Journalism (3)  
 KNH 402 Critical Reflections on Health Care (3)  
 KNH 495 Practicum in Sport Leadership and Management (3)  
 LAS 410 Current Latin American Issues (3)  
 MAC 414 Capstone Pictures: Project in Digital Narrative Film Production (4)  
 MAC/JRN 415 Practicum in Television Journalism (3)  
 MAC 440 Interactive Media Study Practicum (4)  
 MAC 445 Seminar in Mass Communication Law (3)  
 MBI 440C Research Problems (2) and MBI 490 Undergraduate Seminar (1)  
 MBI 477C Independent Studies (2) and  
 MBI 490 Undergraduate Seminar (1)  
 MBI 480C Departmental Honors (2) and MBI 490 Undergraduate Seminar (1)  
 MBI 487, 488, 489 Medical Laboratory Science Practicum (8, 12, 12)  
 MGT 495 Strategic Management (3)  
 MKT 442 Highwire Brand Studio (4)  
 MKT 495 Marketing Strategy Practicum (4)  
 MME/ECE 448, 449 Senior Design Project (2, 1-2)  
 MTH 407 Mathematical Structures Through Inquiry  
 MTH 425 Number Theory (3)  
 MTH 435 Mathematical Modeling Seminar (3)  
 MTH 482 Great Theorems of Mathematics (3)  
 MUS 460 Methodologies in Ethnomusicology (3)  
 MUS 475 Senior Practicum in Music Education (3)

MUS 493 Capstone Senior Recital (3)  
 NSC 402 Leadership and Ethics (3)  
 NSG 435 Challenges in Health Care Delivery (3)  
 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 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)  
 WGS 401 The Role of Women in a Transforming Society (3)  
 WST 444, 445 Senior Workshop and Project (3, 2)

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 with the Global Miami Plan. Contact the divisional advising offices for details.

# Other Requirements

## Divisions, Majors, and Minors

### Academic Divisions and Departments

Miami University has seven academic divisions: College of Arts and Science, Farmer School of Business, College of Creative Arts, College of Education, Health, and Society, College of Engineering and Computing, College of Professional Studies and Applied Sciences, 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 College of Engineering and Computing. 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 Global Miami Plan for Liberal Education or the Honors 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 section. 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 chief departmental advisor or chair of the interdepartmental committee that you want to enroll in the minor.

- You must have a 2.00 grade point average (GPA) for all courses in a minor. Some minor programs may require a higher GPA.
- 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 advisor for more information.

Students may use a minor to meet the Global Miami Plan Thematic Sequence requirement if the minor has 9 hours outside the department of major and 6 of those 9 hours are at the 200 level or above. 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 or regional advising office (regional campus students only) 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. Most majors in the College of Creative Arts require successful completion of an audition or portfolio review to complete the change of major.

### 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 your divisional office(s), and departments involved. Follow change of major process noted in Changing a Major or Minor above to have your program of study noted on your academic records and you will have advisors 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 or go to the Office of Liberal Education Web site ([www.MiamiOH.edu/liberal-ed](http://www.MiamiOH.edu/liberal-ed)). See the Liberal Education at Miami section in this Bulletin. Regional students should see their regional advisor.

## 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 KNH 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 advisors to validate these credits. Students are responsible for supplying course descriptions or a college catalog from those colleges previously attended.

## 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 GPA
- 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 GPA falls below 2.00, you can still receive an associate's degree if your GPA 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)	<u>80-86 semester</u>
<b>Total</b>	<b>128 semester hours</b>

OR, for Honors students in the entering classes of 2010, 2011, 2012, and 2013, fulfillment of the Honors Plan for Liberal Education (which takes the place of the Foundation courses, Thematic Sequence, and Capstone Experience; for more information regarding the Honors Plan requirements, see the Liberal Education at Miami section, or contact the University Honors Program at 513-529-3399).

- 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 GPA.
- 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 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 University Registrar's Office 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 DAR 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 advisor, and the university in determining your progress toward completion of your program requirements and serves as a graduation check.

Your DAR is available online (<http://bannerweb.MiamiOH.edu/>).

# Academic Planning

## Educational Decisions

### 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 you understand how majors connect to various careers. The Career Services website [www.MiamiOH.edu/careers/](http://www.MiamiOH.edu/careers/) provides useful career information and links to dozens of other career-related sites where you can explore different jobs by major. While it is open to all students, first and second year students are especially encouraged to complete the "Career Success Certificate" to help them get a head start on preparing for their future. This certificate program includes important workshops and experiences to support the career exploration and development process. In addition, Career Services offers one-on-one advising, workshops to help you explore careers, and standardized career assessments. Each of these opportunities can help you learn about your interests, abilities, and values and to relate them to your academic and career choices.

The Career Development and the College Student Course (EDL 100), provides opportunities to learn more about selecting a career. It is offered to first- and second-year students.

When you are ready to start your job or internship search, Career Services provides resume help, job or internship search strategies, mock interviewing, and can provide information about specific careers or internships. Over 300 employers visit campus annually for on-campus interviews. To learn more about the employers that visit campus, and to make yourself eligible for the interviews and advising appointments, sign up for a Miami CAREERlink account using your banner ID: <https://miamiu-csm.symplcity.com/students/>.

Finally, don't forget to talk with advisors 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 College of Creative 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 nursing, social work, special education, speech communication, speech pathology and audiology, all licensure programs in the Department of Teacher Education and all programs in the Farmer School of Business and most majors in the College of Creative Arts.

## Academic Advising

Academic advisors 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 advisors serve as the primary academic advisor for most students during their first semester at Miami. First year advisors are full time and graduate student staff who live and work in the residence halls. First year commuter students are advised by the Commuter Center graduate advisor in the Commuter Resource Center, located in room 2045 of the Armstrong Student Center.

Faculty advisors are the primary advisors for students in the College of Creative Arts, the College of Engineering and Computing, and students in University Studies. The first year advisor assists these students with other university policies and provide additional resources.

In the spring semester of your first year, or when you transfer to Miami as an upper-class student, you will be assigned a faculty advisor in your major. For example, if you are a botany major, a faculty member in that department will be your advisor. If you change majors, your advisor will also change. Students who are undecided about their major will be advised by an academic advisor in the College of Arts and Science advising office.

### Mid-Semester Grade Reports

By the end of the eighth week of classes in the fall and spring semester, instructors are required to submit midterm grades for all undergraduate students who have 45 or fewer earned credits at Miami University. Instructors are encouraged to submit midterm grades for all other students. This requirement applies to all full-term classes and twelve-week "Q" sprint classes during the fall and spring semesters. Midterm grades are not required during other fall and spring semester sprint classes or for any winter and summer terms. Midterm grades are available to students online through *BannerWeb*. 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. Academic advisors also have access to students' midterm grades, and they will meet with all 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.MiamiOH.edu/learning](http://www.MiamiOH.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.MiamiOH.edu/tutoring](http://www.MiamiOH.edu/tutoring). Learning specialists are also available for individual consultations.

In addition to the Tutorial Assistance Program, the Center is the umbrella for a number of programs and services that includes the office of Learning Disabilities Services which provides support for students with LD and ADHD; the Scholastic Enhancement

Program for specially admitted students; Supplemental Instruction and Academic Coaching. The Center also coordinates support for students on academic warning, probation or returning from suspension or dismissal.

### Office of Disability Resources (ODR)

19 Campus Avenue Building, 513-529-1541 (TTY accessible)  
www.MiamiOH.edu/ODR

For students with physical, medical, psychological and neurological 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, CART services, 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.

## 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.

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	BIO/MBI 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 CHM 111L	Chemistry in Modern Society Chemistry in Modern Society Laboratory	4
	4	CHM 141, 144	College Chemistry, College Chemistry Lab	5
	5	CHM 141, 142, 144, 145	College Chemistry, College Chemistry Lab	10
Chinese Language and Culture	3	CHI 101, 102	Elementary Chinese	8
	4	CHI 101, 102, 201	Elementary Chinese Second Year Chinese	11
	5	CHI 101, 102, 201, 202	Elementary Chinese Second Year Chinese	14
Computer Science A	3 or 4	CSE 174	Fundamentals of Programming and Problem Solving	3
	5	CSE 174, 271	Fundamentals of Programming and Problem Solving, Object-Oriented Programming	6
Macroeconomics	3, 4 or 5	ECO 202	Principles of Macroeconomics	3
Microeconomics	3, 4 or 5	ECO 201	Principles of Microeconomics	3
English Language	3-4	ENG 111	Composition and Rhetoric	3 (students then take ENG 112)
	5	ENG 111, 112	Composition and Rhetoric, Composition and Literature	6
English Literature	3-4	ENG 111	Composition and Rhetoric	3 (students then take ENG 112)
	5	ENG 111, 112	Composition and Rhetoric, Composition and Literature	6

Student takes both exams:				
English Language & English Literature *Any combination of score 3 and 4	* *	ENG 111 ENG 122	Composition and Rhetoric Popular Literature	6 (student then takes ENG 112)
Any score of 5 with any other score	5	ENG 111 ENG 112	Composition and Rhetoric College Composition & Literature	6
Environmental Science	3, 4 or 5	BIO 121	Environmental Biology	3
European History	3, 4 or 5	HST 122	Western Civilization	3
French Language	3	FRE 101, 102	Elementary French	8
	4	FRE 101, 102, 201	Elementary French Intermediate French	11
	5	FRE 101, 102, 201, 202	Elementary French, Intermediate French, Critical Analysis of French Culture	14
French Literature	3	FRE 101, 102 and 201	Elementary French, Intermediate French	11
	4 or 5	FRE 101, 102, 201, 202	Elementary French, Intermediate French, Critical Analysis of French Culture	14
German Language	3	GER 101, 102	Beginning German	8
	4	GER 101, 102, 201	Beginning German Second Year German	11
	5	GER 101, 102, 201, 202	Beginning German Second Year German	14
Comp Government & Politics	3, 4 or 5	POL 221	Modern World Governments	4
U.S. Government & Politics	3, 4 or 5	POL 241	American Political System	4
Human Geography	3, 4 or 5	GEO 101	Global Forces, Local Diversity	3
Italian Language and Culture	3	ITL 101, 102	Beginners Italian	8
	4	ITL 101, 102, 201	Beginners Italian Second Year Italian	11
	5	ITL 101, 102, 201, 202	Beginners Italian Second Year Italian	14
Japanese Language and Culture	3	JPN 101, 102	Elementary Japanese	8
	4	JPN 101, 102, 201	Elementary Japanese Second Year Japanese	11
	5	JPN 101, 102, 201, 202	Elementary Japanese Second Year Japanese	14
Latin Literature	3	LAT 101, 102	Beginning Latin	8
	4 or 5	LAT 101, 102, 201, 202	Beginning Latin Intermediate Latin	14
Latin: Vergil	3	LAT 101, 102	Beginning Latin	8
	4 or 5	LAT 101, 102, 201, 202	Beginning Latin Intermediate Latin	14
Music Theory	3	MUS 101	Theory of Music	3
	4 or 5	MUS 101, 151	Theory of Music Sight Singing and Dictation I	4
Physics B	3, 4 or 5	PHY 171, 172, 173, 174	College Physics, Physics Laboratory	8
Physics C: Electricity and Magnetism	3, 4 or 5	PHY 182, 184	The Physical World, Physics Laboratory	5
Physics C: Mechanics	3, 4 or 5	PHY 181, 183	The Physical World, Physics 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 101, 102, 201, 202, 311	Beginner's Course, Second Year Spanish, Grammar Review & Intro Composition	17
Spanish Literature	3	SPN 101, 102, 201	Beginner's Course, Second Year Spanish	11
	4 or 5	SPN 101, 102, 201, 202, 311	Beginner's Course, Second Year Spanish, Grammar Review & Intro Composition	17
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	HST 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

## College Level Examination Program (CLEP)

Contact 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 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 and Oxford campuses do not currently offer CLEP testing.

Score requirements or course credit may change, for current information see: <http://www.MiamiOH.edu/saf/testing.html>.

**American Government:** credit for POL 241 (4 hours) for score of 55.

**Calculus:** 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 101, 102 (8 hours) for score of 50; credit for SPN 201, 202 (6 hours) for score of 63; credit for SPN 311 (3 hours) for score of 75.

**General Chemistry:** credit for CHM 141, 142, 144, 145 (10 hours) for score of 55.

**Human Growth and Development:** credit for PSY 231 (3 hours) for a score of 63.

**Information Systems & Computer Applications:** credit for BTE 284 (3 hours) for score of 50.

**Introductory Psychology:** credit for PSY 111 (4 hours) for score of 54.

**Introduction to Business Law:** credit for BTE 108 (3 hours) for score of 50.

**Introductory Sociology:** credit for SOC 151 (4 hours) for score of 55.

**Principles of Management:** credit for BTE 111 (3 hours) for score of 50.

**Principles of Marketing:** credit for BTE 105 (3 hours) for score of 50.

## 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 BIO 116 (4 hours).

**Business & Management** (acceptable score 5 or better)  
Credit for MGT 111 (3 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 A** (acceptable score 6 or better)  
Credit for ENG 111 and 112 (6 hours).

**English B** (no credit awarded)

**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** (acceptable score 5 or better)  
Credit for HST 296 (3 hours).

Credit awarded on an individual basis for selected upper-level courses for score of 6 or 7.

**Latin** (acceptable score 6 or better)  
Credit determined by department.

**Mathematics** (acceptable score 6 or better)  
Credit for MTH 151 (5 hours).

**Philosophy** (acceptable score 6 or better)  
Credit for PHL 105 (3 hours).

**Physics** (acceptable score 6 or better)  
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 or better)  
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 in which tests are offered 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. Fees are charged per credit hour after the first hour if the examination is passed. 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.MiamiOH.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 fall semester.

**Speech Pathology and Audiology:** offered in SPA 101 Beginning ASL I (4) with proficiency exam.

## 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.MiamiOH.edu/reg/calendars/index.php](http://www.units.MiamiOH.edu/reg/calendars/index.php)) and begin with an easier course in a later semester.

## Chemistry

CHM 111 and 111L: for non-science majors; no previous chemistry is necessary; CHM 111 and 111L fulfill the MPF natural science requirement and laboratory requirement.

CHM 141, 141R, 142, 144, 145: lectures and laboratories for students preparing for careers in health professions and sciences, engineering, or science teaching. See note below about math placement scores.

CHM 141 or 141H, and 142H or 142M: lectures for students majoring in chemistry or biochemistry. CHM 144M or 144H and 145M or 145H: laboratories students majoring in chemistry or biochemistry majors. See note below about math placement scores.

**Math placement scores are required for placement into any CHM 14x courses. With a score of 12 or higher on the MP1 test you must enroll in CHM 141 or 141H. With a score of 8-11 on the MP1 test you must enroll in CHM 141R (4 credit hours; 3 lecture, 1 recitation). If your MP1 score is 7 or lower you must complete a math course before enrolling in the CHM 14x series. See an advisor to choose an appropriate math course.**

CHM 147: introductory seminar strongly recommended for all chemistry and biochemistry majors; one credit hour with credit/no credit grading.

## 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 online prior to 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 online 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 first-year 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

All courses listed here can be used to fulfill the natural science section of the Miami Plan.

PHY 101, 111, 118, 121, 131, 141: general physics course. PHY 103 has a prerequisite; see course descriptions.

PHY 171, 172, 173, 174: physics sequence for students who have had mathematics courses that include trigonometry. MTH 151 or equivalent is strongly encouraged but not required as a prerequisite. PHY 172 is a prerequisite to PHY 171. Concurrent registration in the laboratory course (173 with 171 and 174 with 172) is required.

PHY 181, 182, 183, 184: physics sequence recommended for science and engineering students who have taken or are concurrently enrolled in a calculus course. PHY 181 is a prerequisite for PHY 182, and concurrent registration in the laboratory course (PHY 183 with 181 and 184 with 182) is required.

## 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 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, 251, 252.

MTH 249H Honors Calculus II (5): Honors version of MTH 249. Admission requires honors standing or permission of instructor.



## Mathematics and Statistics

A math placement test is offered to Oxford campus students. (The regional campuses offer other standardized placement tests.) This test helps assess your readiness for calculus if you expect to take a mathematics or statistics course. Precalculus topics of algebra, trigonometry, functions, and basic geometry are included on the test. More information about this test is online ([www.MiamiOH.edu/mathstat/place.html](http://www.MiamiOH.edu/mathstat/place.html)) or available from a departmental advisor.

If you plan to	and you have passed these high school classes	and have these scores on the test	then take
Take a calculus course	(a) a year of calculus, including log, exponential, and trig functions	19 to 25 or 4-5 on AP Calculus AB	MTH 249 or 249H
	(b) three and one-half or four years of math with trig but little or no calculus	16 to 25 and 1-3* on AP Calculus AB or no AP exam	MTH 151
	(c) three or four years of math including some trig	12 to 15 8 to 11	MTH 123 MTH 104
	(d) less than three years of math	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	12 to 25	MTH 121 or STA 261
	(b) less than three years of math	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	19 to 25 and 3-5 on AP Calculus AB	MTH 217 or 218
	(b) three and one-half or four years of math with trig but little or no calculus	16 to 25	MTH 151
	(c) three or four years of math including some trig	12 to 15	MTH 123
	(d) less than three years of math	0 to 11	MTH 102 or 104
Seek licensure in early or middle childhood, not concentrating in math	(a) three years of math, including geometry	12 to 25	MTH 115
	(b) less than three years of math	0 to 11	MTH 102

\*A score of 3 on the AP Calculus AB will confer credit for MTH 151. However, if you intend to eventually take Calculus II, the department recommends retaking MTH 151.

Since recommendations given above or online may not consider all information relevant to your situation, you should contact a departmental advisor if you have questions. The goal is to place you in a course with students of similar preparations.

To contact the Department of Mathematics, call (513) 529-5818.

# Course Registration and Other Regulations

Office of the University Registrar  
102 Campus Avenue Building  
513-529-8703  
[www.MiamiOH.edu/registrar/](http://www.MiamiOH.edu/registrar/)

## Academic Calendar

Important academic dates and deadlines are published in the Academic Calendar online at [www.MiamiOH.edu/calendar](http://www.MiamiOH.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 111 Shriver Center. Regional students should go to the Office of IT services on their campus for ID cards.

## Course Offerings

Course offerings and other registration information are available online through myMiami ([www.mymiami.MiamiOH.edu](http://www.mymiami.MiamiOH.edu)) (log-in required) and [www.MiamiOH.edu/registrar](http://www.MiamiOH.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 advisor to select their required courses and electives. First year students register during Summer Orientation in June. Continuing students are encouraged to contact their advisors for further academic and career counseling before registering.

Register for classes at Miami University online through myMiami/BannerWeb ([www.mymiami.MiamiOH.edu](http://www.mymiami.MiamiOH.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 second (2nd) day of fall or spring semester.** 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 advisor 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 who does not hold an assistantship can register for in a regular semester is 15. Graduate students not holding an assistantship are limited to no more than nine credit hours per single summer term. Students with a need to exceed the maximum graduate credit hour limits must file a petition with the Dean of the Graduate School prior to the first day of the semester.

Student who are employed full time are strongly encouraged to keep their enrollment at six credit hours or less during a semester.

Graduate assistants, doctoral associates, and teaching associates with duties of 18 to 20 hours per week must register for at least 9 graduate semester hours and may register for as many as 15 total (undergraduate and graduate) hours per semester.

Modified graduate assistants with duties of eight hours per week must register for at least 9 graduate credit hours per semester and may register for as many as 15 total (undergraduate and graduate) hours.

Grant-in-aid recipients must register for at least 9 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 at least 9 graduate semester hours and may register for as many as 15 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 advisor does not already have one), and then consult with your advisor. If transfer of credit is recommended, your advisor 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.

## Changes of Registration

Courses may be changed only in the prescribed time stated in the University academic calendar. Forms for reporting such changes may be obtained from the Oxford Office of the University Registrar, Regional/Campus Records and Registration Offices, VOALC Student Services Office, or online at <http://www.units.MiamiOH.edu/reg/forms/index/php> (Oxford), <http://regionals.MiamiOH.edu/registration/documents/forms/Regl-change-of-schedule-add-drop-8-19-13.pdf> (Regionals). No change is official until the change-of-schedule form or registration transaction is received by those offices.

### Adding a Course

Students may add, without a signature of acknowledgment from the instructor, courses that have open seats during the first three calendar days of all four terms or the first two calendar days of any sprint part of term. Following this period, the instructor may approve a student to add the course. An instructor may also refuse to accept a student after this period if, in his or her judgment, too much subject matter has already been covered. Departments, programs, or academic coordinators may choose to approve the student action, in addition or in place of the course instructor.

### Dropping a Course

During the first three calendar days of all four terms or the first two calendar days of any spring part of term the instructor will not be notified of a student dropping the course. Following these first three full-term days or the first two sprint-part-of term days, the student will contact the instructor about dropping the course. The instructor will drop the student using the on-line course drop process and the student and instructor will be notified via email once the drop is processed.

Before dropping a course, a student is encouraged to contact their lenders and insurance agents to determine continued eligibility for loan deferments and insurance coverage before taking an action that will change their enrollment status to less than full-time or a lesser increment of part-time. Dropping a course is a formal administrative procedure; merely ceasing to attend class is not the same as dropping a course. A student may drop a course after the first week of the class up to during the first 20 percent of the course, in which case no grade or other designation will appear on the student's official record. Students should refer to the Academic Calendar (<http://www.units.MiamiOH.edu/reg/calendars/>) for specific academic deadline dates.

### Withdrawing from a Course

Withdrawing from a course is a formal administrative procedure; merely ceasing to attend class is not the same as withdrawing from a course. Before withdrawing from a course, a student should consult with his or her instructor and academic advisor. A student may withdraw from a course after the first 20 percent of the course and, ordinarily, before the end of 60 percent of the course. A grade of W will appear on the student's official record. A grade of W is not calculated in the student's grade point average, and credit hours graded with W do not count in enrollment status. Refunds follow University policy, available via the Office of the Bursar website at <http://www.units.MiamiOH.edu/bur/>. Students should refer to the Academic Calendar on the Office of the Registrar website for specific academic deadline dates. Students are strongly encouraged to contact their lenders and insurance agents to determine continued eligibility for loan deferments and insurance coverage before taking an action that will change their enrollment status to less than full-time.

After the first 20 percent of a course through the end of the first 60 percent, a student may withdraw from a course with a signature of acknowledgement from the instructor.

1. After 60 percent of the course is complete, a student may no longer withdraw from a course, unless a petition is approved by the Interdivisional Committee of Advisors. The petition must include the signatures of the course instructor and the student's academic or divisional advisor. The petition must also describe and document the extenuating circumstances (extraordinary circumstances usually beyond the student's control) that form the grounds of the petition. If the petition for withdrawal is approved, the student will be withdrawn from the course with a grade of W. If the petition is not approved, the student will be expected to remain in the course (see Student Handbook, *Exceptions to the Scholastic Regulations*). The withdrawal deadline is 5:00 p.m. on the last Friday of the term's classes preceding exam week, or if a sprint or accelerated class, 5:00 p.m. on the last meeting date of that class.
2. Only in rare circumstances will a petition to withdraw from a course after 60 percent of the course is complete be approved for reasons of academic performance alone.
3. When possible, a student should continue to attend class until the Interdivisional Committee of Advisors has acted on his or her petition. Non-attendance does not void financial responsibility or a grade of F.

If a student is found guilty of academic dishonesty in a class and withdraws from the class, the student will receive the grade of F for the class, and a notation of academic dishonesty will be posted directly beneath the class on the academic record.

### 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

A full-time undergraduate student must register for at least 12 hours of academic work in a semester or term and shall be subject to all the rules, regulations, and fees governing regular Miami University student.

A part-time undergraduate student, i.e., carrying fewer than 12 credit hours in a semester or term, must be a resident of Oxford or must commute from his or her home or attend one of the Regional campuses.

The maximum credit-hour limit for an undergraduate student is based upon courses taken at all locations of Miami University and is limited to 20 credit hours in a fall or spring semester. The limit for all summer terms combined is 16 credit hours or 1.3 credit hours per week for overlapping summer terms. The limit for winter term is 6 credit hours. A student who needs to exceed the maximum credit-hour limits must obtain permission from the dean of his or her division.

Students may register for one to five 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.

## Independent Work

Independent work comes in two forms: (1) internship or co-operative education, and (2) independent study.

Internships and “co-ops” are a partnership between the student, the University, and employers that formally integrate students’ academic study with work or community service experience. Internships are typically of a specified and definite duration, may or may not involve credit hours, and may or may not include compensation in the forms of wages, salaries, stipends or scholarships. Co-ops may provide students with compensation from the cooperative employer in the form of wages or salaries for work performed as well as academic credit; typically students alternate or combine periods of academic study and work experience.

An independent study is a course taken with ongoing supervision by the instructor for rigorous learning and knowledge enhancement in a particular area of interest beyond the courses offered. The content of an independent study course should not duplicate any course available to the student.

In order to register for an Independent Study, faculty must print an Independent Study Permit available on the University Registrar website, complete the form, sign, and send to the department chair or regional campus coordinator before it is submitted to the Office of the Registrar.

Enrollment in an independent study becomes part of the student’s academic load. Procedures for withdrawal from such courses are the same as for regularly scheduled courses.

Independent Study courses do not carry over from one semester or term to another; a new permit must be completed and submitted each term or semester.

With the permission of the instructor, students may register for zero to five credit hours of independent study each semester or term (with no more than a total of 10 credit hours per academic year).

Independent study courses should be numbered 177, 277, 377 or 477 in accordance with the course’s class level (e.g., 177 for first-year material and 277 for second year material). The 340 number should be only used for internships.

Independent Study Permits must:

- Be submitted during the first 20% of the semester or term;
- Include approvals of both the instructor and department chair;
- Indicate the course number for transcript purposes.
- Permits may not be processed if they are incomplete, incorrect, late, or denied.

## Repeating a Course

An undergraduate Course Repeat Policy (Policy) is available for any two courses taken in an undergraduate Miami degree program when a grade of C- or lower is earned and where the initial enrollment and completion was fall semester 2012 or thereafter. Students are strongly encouraged to visit with an advisor to determine whether repeating a course is advisable. Repeating a course may have an impact on financial aid, insurance, entrance to professional schools, participation in athletics, immigration status, and other matters. For additional information and the full policy see the Student Handbook.

## Undergraduate Student Classification

Students who have met entrance requirements are admitted to freshman rank. Students with at least 30 but less than 64 earned credit hours are ranked as sophomores. Students with at least 64 but less than 96 earned credit hours are ranked as juniors. Students with 96 or more earned credit hours are ranked as seniors.

## Graduate Level Courses for Seniors

Seniors at Miami or juniors in the Honors 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 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 advisor, 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 may count toward requirements for a bachelor’s degree. Contact your academic advisor for information.

## Greater Cincinnati Consortium Agreement

Full-time Miami students can take courses through the Greater Cincinnati Consortium of Colleges and Universities 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 Christian University, Cincinnati State Technical and Community College, College of Mount St. Joseph, Gateway Community and Technical College, God’s Bible School & College, Good Samaritan College of Nursing and Health Science, Hebrew Union College-Jewish Institute of Religion, Miami University, Northern Kentucky University, Thomas More College, Union Institute & University, University of Cincinnati, Wilmington College, and Xavier University.

The University 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 reapply to graduate for a future commencement date through BannerWeb. 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.MiamiOH.edu/handbook](http://www.MiamiOH.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:**  
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 University Registrar's Office.

Freshmen may do so 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 University 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

Miami University 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*.

## 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 GPA of less than 2.00 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.

**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 – at least 32 must be from Miami; (2) at least a 2.00 cumulative GPA; (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 term 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 class:** When maximum enrollment in a course has been met, no more students can be accommodated.

**Co-requisite:** A course that indicates the courses required to be taken in the same semester as the course in question. 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 (CRN):** A five-digit code used to identify each section of a course for registration. It is in effect only for the current term.

**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 GPA. No more than 25 percent of your course work can be taken on a 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.

**DAR (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.MiamiOH.edu/>.

**Division:** An academic part of the university with its own requirements. Miami has seven divisions: College of Arts and Science, College of Creative Arts, College of Education, Health and Society, College of Engineering and Computing, Farmer School of Business, Graduate School, and College of Professional Studies and Applied Sciences.

**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.

**Incomplete grade:** May be assigned when a student and an instructor formally agree to a plan to complete unfinished course work. See Grades section for more detail.

**Independent Work:** Students may register for no more than 5 hours of independent study each semester and no more than 10 hours during a full calendar year.

**Lab:** Laboratory.

**Late registration:** Late registration is held just before the term begins for new students who have not registered.

**Lec., Lab.:** Lecture and laboratory abbreviations in course descriptions to indicate credit hours in each (for example, 3 Lec. 1 Lab.).

**Major:** Your primary field of study, such as botany, economics, etc.

**Miami Plan (MPF):** 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:** Global 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.MiamiOH.edu/password](http://www.MiamiOH.edu/password). For login problems, contact the IT Services Support Desk through myMiami at [www.mymiami.MiamiOH.edu](http://www.mymiami.MiamiOH.edu).

**myMiami:** Miami University's web portal. myMiami contains links to BannerWeb, the online campus directory, 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.MiamiOH.edu](http://www.mymiami.MiamiOH.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 University Registrar's Office.

**Open course:** One that can accommodate more students. Open courses are available online at myMiami ([www.mymiami.MiamiOH.edu](http://www.mymiami.MiamiOH.edu)).

**Placement exams:** Offered in foreign languages, mathematics, chemistry and physics to help you enroll in an appropriate first course for your skill level.

**Prerequisite:** Course(s) that are approximations of the necessary specific or general academic knowledge, background, or semester classification required to succeed academically in a specific course. This is indicated in a course description of the Courses of Instruction section of this General Bulletin.

**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. 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 55 minutes each time. One credit hour is usually assigned for two or three hours in laboratory and studio courses.

**Sprint course standards:** Courses that meet for less than the full 14 week term. The sprint parts of term are Q, T, U, V, W, X, Y, Z. Sprint course meeting dates are listed in the course 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:** An official 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 University Registrar

102 Campus Avenue Building

Phone: 513-529-8703

[www.MiamiOH.edu/registrar](http://www.MiamiOH.edu/registrar)

## The Grading System

Grades for all students are reported to the University Registrar's Office. Grade submission deadlines and dates by which grades are viewable are listed on the academic calendar (<http://www.units.MiamiOH.edu/reg/calendars/>). 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

### Other grade symbols include:

I	=	Incomplete; calculates as an F in grade point average (retired).
IG or IGY	=	Incomplete; work at the graduate level; not included in the calculation of grade point average. The student has one academic semester following the recording to complete the academic work. 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 or IUY	=	Incomplete work at the undergraduate level; not included in the calculation of grade point average. The student has one academic semester following the recording to complete the academic work. Check the Academic Calendar for the deadlines per term. After the deadline has passed with no grade change being recorded, the "IU" will convert to a grade of F. The "IUY" will convert to Y (no credit).
L	=	Audit; not included in enrollment status hours; not included in calculation of grade point average.
N	=	No grade submitted by the instructor; not included in the calculation of grade point average.
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; 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; carries no credit points; is not included in the calculation of grade point average.
WP	=	Withdrawal passing; (retired).
WF	=	Withdrawal failing; (retired).
X	=	Credit in a course taken credit/no-credit in which a grade of C or better is earned in an undergraduate course or in which a grade of B is earned in a graduate course; carries no credit points; 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 is earned in an undergraduate course or in which a B- or less was earned in a graduate course; carries no credit points; 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 term GPA

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
BIO 115	4	x	B+ (3.30)	=	13.2
EDT 110R	2	x	A (4.00)	=	8.0
TOTAL	17				51.2

51.2 divided by 17 = 3.01 GPA

To figure your cumulative GPA, 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.

## Auditing Courses

Courses may be audited without credit with the consent of the instructor and will not be counted under any rules establishing maximum registration or enrollment status. The requirements for auditing a course are established by the instructor and may include active participation by the student. Any instructor may drop an auditing student at any time during the semester if the student is not fulfilling the audit requirements. Full fees are assessed for auditing a course. Whenever a student is not fulfilling the audit requirements for a course the instructor may direct the University Registrar's Office to drop the student. During the first 20 percent of the course no grade will be recorded; after the first 20 percent is completed but before 60 percent of the course is completed, a grade of W will be recorded.

## Credit/No Credit

**Warning:** Nationwide studies have shown that credit/no-credit grades on your academic record may be a negative factor in evaluation of your application for admission or employment by most professional schools (law, medicine, etc.), by many graduate schools, and by some employers and undergraduate schools. Before enrolling for courses on a credit/no-credit basis consider what effect it may have upon your career goals.

Students should consult with the chief departmental advisor of their department of major with regard to questions pertaining to courses that may be taken on a credit/no-credit basis.

All students not on academic probation may register for courses on a credit/no-credit basis, except as noted below. Eligible students may enroll in any course on a credit/no-credit basis excepting courses used to meet department field of concentration and major requirements and the core courses at the Dolibois European Center. However, departments may specify field of concentration and major requirements that can be met with "credit" in a specified course. Registration in a course on a credit/no-credit basis requires the permission of the instructor except in Miami Plan courses.

No more than 25 percent of the total hours earned at Miami may be earned in courses taken on a credit/no-credit basis. Freshmen may register for courses on a credit/no-credit basis providing they are concurrently enrolled for 12 hours for grades. During the summer term, freshmen may register for courses on a credit/no-credit basis providing they are concurrently enrolled for four semester hours for grades. If at any time during the semester, a student drops below 12 hours for grades (four hours for the summer term), the credit/no-credit status will be removed. Courses offered only on a credit/no-credit basis are not factored in. Sophomores, juniors, and seniors may register for one or more courses per semester on a credit/no-credit basis. Students may not enroll on a credit/no-credit basis in any course in which they have previously earned credit. A student may not enroll for grade in any course for which they have received "credit" on a credit/no-credit basis. "Credit" (X) will be granted for grades of C or better; "no-credit" (Y) will be granted for grades of C- or less. The instructor will record the normal letter grade, which the University Registrar's Office will convert to the respective credit/no-credit symbol. Courses taken on a credit/no-credit basis are disregarded in the computation of grade point averages. A course can be changed from credit/no-credit to letter grade or from letter grade to credit/no-credit during the first 20 percent of the course (see the academic calendar for specific dates).

## 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.

Grades of incomplete for a graduating student must be removed by the conclusion of end-of-term processing for the student's graduation term, approximately 30 days after the date of graduation. For policies regarding incomplete grades and their removal, see *The Student Handbook*.

## Withdrawal from the University

Withdrawing from the University is a formal administrative procedure; merely ceasing to attend classes will not be considered an official withdrawal from the University. A student withdrawing from the University is expected to file in the Oxford Office of the University Registrar's Office or Regional/Campus Records and Registration Office. The withdrawal form must be signed by the student's divisional advisor or the proper University official as indicated on the withdrawal form. An international student on a non-immigrant student visa must also obtain the signature of the International Student Advisor on the withdrawal form. The withdrawal deadline is 5:00 p.m. on the last Friday of the term's classes preceding final exam week. Official withdrawals are noted on a student's academic record (transcript). Refunds follow University policy, available via the Office of the Bursar website at <http://www.units.MiamiOH.edu/bur/>. Students considering withdrawal from the University are strongly encouraged to contact their lenders and insurance agents to determine continued eligibility for loan deferments and insurance coverage.

1. If a student officially withdraws during the first 20 percent of any semester, accelerated course or summer term, no grades will be recorded.
2. If a student officially withdraws from the University at any point after 20 percent and through the last class day of a semester, accelerated course or summer term, the University Registrar's Office shall assign a grade of W in each course for which the student is registered, excluding accelerated courses completed or not yet begun prior to the date of withdrawal from the University. Courses in which a final grade has been assigned remain on the academic record.
3. If a student officially withdraws from the University after 60 percent of a semester, accelerated course or summer term, and if the student wishes to re-enroll, the student must submit a petition for re-enrollment to the Interdivisional Committee of Advisors. The petition must include a description of the extenuating circumstances (extraordinary circumstances usually beyond the student's control) that form the grounds of the petition.
4. If a student obtains a medical withdrawal certified by the Medical Director of the Student Health Service or Director of the Student Counseling Service, he or she will be allowed to withdraw from the University without grades (see Part 4, Voluntary Medical Withdrawal). If a student obtains a military withdrawal, the provisions of Section 1.2.E apply.

### Unofficial Withdrawal

If a student leaves the University without formally withdrawing and failing and/or non-completion grades are recorded, registrations in subsequent terms may be cancelled. For additional information and the full policy see the *Student Handbook*.

## Academic Warning, Probation, Suspension, and Dismissal

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 by the Office of the Registrar on the basis of semester and/or cumulative grade point averages as computed by the Office of the Registrar. Academic actions during the summer terms are taken by the Office of the Registrar at the end of the summer term. Academic actions will be taken on any student regardless of the number of hours taken in any semester or summer term. Good academic standing is defined as maintaining a cumulative grade point average of at least 2.00. Students on academic warning are also considered to be in good academic standing.

### Academic Warning

An undergraduate student who earns a cumulative GPA 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 GPA hours who earns a cumulative GPA 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.

### Academic Probation

An undergraduate student with 16 or more cumulative Miami grade point average hours is placed on *academic probation* at the end of any semester or summer term 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.

## Continued on Academic Probation

An undergraduate student with 16-29 Miami grade point average 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 Miami grade point average hours who is on academic probation and who has an average for a semester or summer term 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 Miami grade point average hours who is on academic probation will be *suspended* if his or her average for a semester or summer term is lower than 2.00. The period of suspension is two consecutive terms including summer terms (see *Student Handbook, Re-enrollment after Academic Suspension or Dismissal*).

## 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 (see *Student Handbook, Re-enrollment after Academic Suspension or Dismissal*).

A student may petition for an exception to academic suspension or academic dismissal. Freshmen should consult their freshman advisor or commuter advisor about the petitioning process. Upper-class students can get a petition from their divisional dean. These petitions are considered by the Committee of Advisors in your academic division.

All decisions on petitions are reviewed by the Interdivisional Committee of Advisors, 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.

## Fresh Start Policy

The Fresh Start Policy is designed to help Miami University 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. Other students who left the University without being suspended or dismissed and who have a cumulative GPA below 2.00 may petition their divisional committee of advisors for Fresh Start after a two-year absence if they believe their past academic record suffered due to extenuating circumstances. Credit earned from other institutions during the two-year period, beginning with the student's first term of non-enrollment at Miami, will not be accepted for transfer credit.

When students are suspended or dismissed for academic reasons, the University Registrar's Office will inform them about re-enrollment opportunities, including the Fresh Start option. The University Registrar's Office will inform any suspended or dismissed student being re-admitted following a two-year continuous absence that they may apply for Fresh Start status. A request for Fresh Start status must be submitted to the student's academic division within one year of re-enrollment and applies only to courses taken before re-enrollment.

1. After Fresh Start status is approved, a notation will be added to the student's academic record indicating that all Miami University credit hours earned prior to re-enrollment will be subject to the following conditions: Courses taken prior to Fresh Start are excluded from the cumulative grade point average calculation, and the student starts with a new cumulative grade point average.
2. Credit earned at Miami with a grade of less than a C (2.00) is forfeited.
3. Grades from all coursework taken at Miami University will be used in calculating eligibility for graduation with honors.

Students choosing to re-enroll under the Fresh Start policy are subject to the academic regulations in effect at the time of their re-entry. Fresh Start students must re-declare their major or majors, or re-apply for admission to the major if admission is required and must complete all current academic requirements. Fresh Start status is applicable only to associate and baccalaureate degrees and may be granted only one time. Following re-enrollment, students opting for Fresh Start must complete at Miami a minimum of 50 percent of the total hours required for their degree program. Fresh Start status will be recorded on the student's academic record as follows: "(Date) Fresh Start Approved. New Grade Point Average Established." Catalog year is changed to reflect the first term of re-enrollment after the term of Fresh Start is established.

## Re Enrollment

Former students who left the university in good standing may apply for re-enrollment through the University Registrar's Office. Students who have been suspended, dismissed, or have a financial, medical, or disciplinary hold also apply through the University Registrar's Office. Apply for re-enrollment at least 30 days before the beginning of the term that you intend to enroll. Information is available at [www.MiamiOH.edu/registrar/](http://www.MiamiOH.edu/registrar/).

Returning students whose degree programs have been discontinued should consult with their academic departments or divisions.

# Fees and Expenses

## Office of the Bursar

107 Campus Avenue Building  
[www.MiamiOH.edu/bursar](http://www.MiamiOH.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.MiamiOH.edu/bursar](http://www.MiamiOH.edu/bursar).

## Estimated Fees and Expenses, 2014-2015

**Note:** 2014-2015 fees will be finalized in July 2014. All fees and charges are subject to change without notice.

For complete information, please visit [www.MiamiOH.edu/bursar/fees](http://www.MiamiOH.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 Term

Visit the Miami Summer Term website for more details at [www.units.MiamiOH.edu/lifelonglearning/summer](http://www.units.MiamiOH.edu/lifelonglearning/summer) or <http://www.units.MiamiOH.edu/bur/>.

## Freshmen

When you are accepted, you must submit the following fee and deposit with your housing application:

Admission Fee	\$95.00
University Contract	\$330.00
Confirmation Deposit	
<b>Total</b>	<b>\$425.00</b>

If you attend Miami and fulfill your housing contract requirements, the University Contract eConfirmation 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; 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.MiamiOH.edu/parking/](http://www.MiamiOH.edu/parking/)) or at the *Student Handbook* Web site ([www.MiamiOH.edu/handbook/](http://www.MiamiOH.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

Undergraduate students should estimate *at least* \$1250 (\$625 per semester) and Graduate students should estimate *at least* \$1408 (\$704 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 \$25.00 non-refundable breakage fee.

## Examinations (optional)

CLEP (College Level Examination Program)	\$100.00 per test
Proficiency examination	\$70.00 per test

Fee includes the first credit hour; add \$35.00 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 University Registrar's Office.

### 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 fall or spring semester, your fees will be refunded according to the following schedule.\*

<u>Withdrawal</u>	<u>Refund</u>
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 (40<sup>th</sup>) class day of a semester. The meal program assessment fee is refunded on a prorated basis, and the flexible spending account ending balance is refunded during if the student withdraws during the semester. Withdrawals occurring at the end of the semester will result in remaining flexible spending account balances being automatically transferred to MULaa.

If you **withdraw during a summer term**, your fees will be refunded as follows.\*

<u>Withdraw:</u>	<u>Your refund:</u>
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 University Registrar's Office 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.MiamiOH.edu/registrar/student/residency](http://www.MiamiOH.edu/registrar/student/residency).

# Financial Aid, Awards and Scholarships

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## Office of Student Financial Assistance

121 Campus Avenue Building  
513-529-8734

*MiamiOH.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 *MiamiOH.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** ([www.fafsa.gov](http://www.fafsa.gov)).

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. Pell Grant amounts can change yearly. The maximum Federal Pell Grant award was \$5645 for the 2013-2014 award year. The amount awarded will depend on financial need, enrollment

status (full-time or part-time), and attendance for a full academic year or less. Students can receive the Federal Pell Grant for no more than 12 semesters.

**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.

**Federal Teacher Education Assistance for College and Higher Education (TEACH) Grant** - Federal grant program awarding up to \$4,000 per year to a student who agrees to serve as a full-time teacher in a high-need field in a public or private elementary or secondary school that serves students from low-income families. A TEACH Grant recipient must teach for at least four academic years within eight calendar years of completing the program of study for which the TEACH Grant was received. **IMPORTANT: If a student fails to complete this teaching obligation, all amounts of the TEACH Grant that were received will be converted to a Federal Direct Unsubsidized Stafford Loan. This loan and all accrued interest must be repaid to the U.S. Department of Education. Interest will be charged from the date the grant(s) was disbursed.**

To qualify for a TEACH Grant, a student must have placed above the 75th percentile of a standardized college admission test (ACT/SAT/GRE); OR have a high school cumulative 3.25 GPA and must maintain the 3.25 GPA throughout the student's academic program and indicate a strong interest in teaching; OR be a current teacher returning to pursue an advanced degree. The student may be either an undergraduate or graduate enrolled full or part-time. Award amounts are proportionally reduced as enrollment level lessens.

A student must complete a TEACH Grant Agreement to Serve (ATS) each year and complete TEACH Entrance Counseling each year to receive a TEACH Grant. For information about the high-need fields and schools serving low-income students, eligibility requirements, grant conditions, and to obtain the service agreement, see [teach-ats.ed.gov](http://teach-ats.ed.gov).

You may cancel all or a portion of your TEACH grant after funds have been credited to your student's Bursar account by notifying us in writing within 30 days after the date of your grant disbursement notice. After 30 days, you will work directly with the Department of Education.

**Ohio College Opportunity Grant (OCOG)** - A state grant program which provides need-based tuition assistance to Ohio students with financial need attending the Oxford campus. Students apply for the OCOG by completing the FAFSA by October 1 each year. For the 2013-2014 academic year, the maximum award amount for full-time enrollment is \$920 for students with an EFC of less than 2191. Award amounts are proportionally reduced as enrollment level lessens.

**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 by Miami's priority filing deadline of February 15 for new freshmen and March 15 for returning students.** A Federal Perkins Loan is a subsidized, deferred payment loan for

students with exceptional high financial need. The interest rate is fixed at 5 percent. 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 2013-2014 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. Direct Loan interest rates are determined each July 1. For more information about current interest rates visit [www.studentloans.gov](http://www.studentloans.gov).

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. For more information about current interest rates visit [www.studentloans.gov](http://www.studentloans.gov). 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 student ceases to be enrolled on at least a half-time basis (6 credit hours). However, interest begins to accrue 60 days after full disbursement and will also accrue during loan deferment. A FAFSA must be submitted in order to apply for a PLUS loan. For information on applying, please see [MiamiOH.edu/loans](http://MiamiOH.edu/loans).

## Private Loans

Miami will certify a private loan from any lender. Terms, fees, and borrowing limits of private loans differ. The yearly amount cannot exceed the annual cost of attendance minus other financial aid and resources. Private loans are not federally guaranteed and do not require that you file the FAFSA. For more information about obtaining a private loan, visit [MiamiOH.edu/loans](http://MiamiOH.edu/loans).

## Student Loan Code of Conduct

The guiding principles for insuring the integrity of the student aid process and the ethical conduct of employees in regard to student loan practices are provided in the Miami University Student Loan Code of Conduct available on the loan web pages at [MiamiOH.edu/loans](http://MiamiOH.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

Starting in April, students will be notified of their eligibility for summer aid upon registering for summer classes if they have a Free Application for Federal Student Aid (FAFSA) on file with Miami University and if they have completed all outstanding financial aid requirements.

Summer financial aid is based on any remaining aid eligibility the student has from the current academic year. Generally, students are only eligible for additional federal student loan funds if they have the number of hours required to advance in grade level by the end of the spring semester. Further, students cannot use their Miami scholarships for summer terms unless the scholarship was awarded specifically for summer study. If all federal loan eligibility has been exhausted, the student may want to consider a federal Direct PLUS loan or a private loan. More information regarding financial aid can be found at [MiamiOH.edu/financialaid](http://MiamiOH.edu/financialaid).

## 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 term, 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 [MiamiOH.edu/financialaid/forms](http://MiamiOH.edu/financialaid/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, select the Current Students link at [MiamiOH.edu/financialaid](http://MiamiOH.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

To determine GI Bill eligibility, contact the Department of Veteran Affairs at 1-888-442-4551. General information and application for the Veterans Administration GI Bill is available. Veterans who intend to enroll at Miami should contact the Veterans Affairs (VA) Administration at 1-888-442-4551 to determine their GI Bill eligibility. To apply for benefits, complete the online application at [www.vabenefits.vba.va.gov/vonapp](http://www.vabenefits.vba.va.gov/vonapp). Veterans also need to submit an enrollment form to the Veterans Certifying Official at Miami, this form can be found at [MiamiOH.edu/veterans](http://MiamiOH.edu/veterans).

To be assured of advance payment, initial paperwork should be submitted to the Veterans Affairs Administration 45 days before classes begin. For more information or to contact the Veterans

Certifying Official at Miami visit [MiamiOH.edu/veterans](http://MiamiOH.edu/veterans), email [veterans@MiamiOH.edu](mailto:veterans@MiamiOH.edu), or call 1-513-529-8703.

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. Current job openings may be found at [www.miamistudentjobs.com](http://www.miamistudentjobs.com). Information about job classifications, wage rates, and how to apply for jobs is available online at [MiamiOH.edu/studentemployment](http://MiamiOH.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) each academic year.
- 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 International Student and Scholar Services 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 FAFSA online at [www.fafsa.gov](http://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, 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 US 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. To see if circumstances qualify for review, please contact the Office of Student Financial Assistance to speak with a counselor.

## Standards of Satisfactory Academic Progress (SAP)

### Basic Requirements

If students receive federal financial aid, they are required to maintain satisfactory progress toward their degree. Satisfactory progress is measured with two standards, qualitative, which is grade-based and quantitative, which is time-related. Download the Standards of Satisfactory Academic Progress (SAP) Policy Standards, which outlines Miami University's policy for monitoring a student's progress at [MiamiOH.edu/financialaid/forms](http://MiamiOH.edu/financialaid/forms).

## 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 or via BannerWeb on the Resources/Additional Information tab if their intended enrollment is less than full time or less than a full year. Changes in enrollment could require adjustments to aid before funds can 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 2014 fall semester by close of business on September 12, 2014 and for 2015 spring semester by February 12, 2015.

## Withdrawal from the University

The U.S. Department of Education expects that Federal aid recipients complete all courses attempted and paid for with Federal aid. Therefore, if students received federal assistance from any federal aid program (Federal Perkins Loan, Federal Direct Stafford Loan, Federal Pell Grant, Federal TEACH Grant, Federal

SEOG, Federal Graduate PLUS Loan, or Federal Parent PLUS Loan) and withdrew from the University during a 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 percentage of the semester completed is determined by dividing the number of calendar days that the student completed as of the withdrawal date by the total number of calendar days in the semester. Scheduled breaks of at least five consecutive days are excluded from the total number of calendar days in the semester.

If a student notifies the University Registrar's Office in writing that they are withdrawing for any reason, Miami will be required to complete a withdrawal calculation and a student's aid may be adjusted for the semester. The withdrawal date will be the date that official notification was provided to Miami of the student's intent to withdraw. The percentage of federal aid that was earned by the student is equal to the percentage of the semester that was completed, as of the withdrawal date, if this date occurs on or before completion of 60% of the semester. If the withdrawal date is after completion of 60% of the semester, the student will have earned 100% of the federal aid and no adjustments will be made to their federal aid for the semester.

If a student stops attending classes and does not notify the University Registrar's Office that they are withdrawing, the student is considered to have unofficially withdrawn. Unofficial withdrawals are recorded when grades have been posted by the University Registrar's Office and the student record shows that the student received all (or a combination of) F, I, N, W and/or Y grades for the semester. A return of Title IV withdrawal calculation is performed based on the last known date of attendance provided by the professor. If a date is not provided by the professor, the withdrawal calculation is based on the midpoint (50%) of the semester. Once the withdrawal calculation is performed, a portion of federal aid may be revoked from the student's account at Miami and returned to the federal government. This process typically results in the student owing money to the Office of the Bursar. When a withdrawal calculation has been completed and aid has been adjusted, students are notified in writing by the Office of Student Financial Assistance. Adjustments may also be made to the student's state and university awards if required.

Miami will return all unearned aid to the U.S. Department of Education for the student. The unearned aid 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 the return of aid is as follows: Federal Direct Unsubsidized Stafford Loan, Federal Direct Subsidized Stafford Loan, Federal Perkins Loan, Federal Direct Graduate PLUS, Federal Direct PLUS (received on behalf of the student), Federal Pell Grant, Federal SEOG, and Federal TEACH Grant.

Withdrawing will also affect a student's Satisfactory Academic Progress and may jeopardize future federal financial aid eligibility. To make sure a student understands the possible impact on financial aid, a 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 accepted first-year students are automatically considered for all available university scholarships. No separate scholarship application is required. Those students filing the FAFSA by the **February 15** deadline will also be considered for need-based scholarships. Scholarship award determinations will be based on official testing and high school transcript information received by Miami University as of March 1. Regional Campus students who are first-time freshmen may be considered for merit awards if they apply for admission by May 1. Additional need and merit-based scholarships are available through a separate application which is due by March 15.

Current Miami students will be considered for the various donor and departmental scholarships available for the following year. To also be considered for need-based scholarships, returning students must complete the FAFSA by the **March 15** deadline. We will automatically make award determinations by reviewing a student's cumulative grade point average (GPA) and the specific eligibility criteria required for each scholarship. Scholarships are awarded within the limits of available funds. No separate scholarship application is required. Returning students will receive scholarship award notifications prior to July 1.

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 the scholarship GPA based on 12 or more credit hours from an accredited school. For Miami transfer scholarship requirements, please see [MiamiOH.edu/scholarships](http://MiamiOH.edu/scholarships). Students enrolled less than full-time, attending the regional campuses, or who have a previous Bachelor's degree are not eligible.

For additional scholarship information, see [MiamiOH.edu/scholarships](http://MiamiOH.edu/scholarships).

## 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

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## Graduate School

102 Roubidoux Hall

phone: 513-529-3734

[www.MiamiOH.edu/graduate-studies](http://www.MiamiOH.edu/graduate-studies)

## Office of Student Financial Assistance

121 Campus Avenue Building

phone: 513-529-8734

[www.MiamiOH.edu/financialaid](http://www.MiamiOH.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 duties). An international student who holds a 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 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 term immediately preceding or following the year of appointment. You will also be required to pay the general fee (reduced), technology fee, facilities fee (including Armstrong Center), and transit fees. Fee increases for 2014-2015 will be determined at the June meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: <http://www.units.MiamiOH.edu/bur/>. Graduate assistants have two options for payment of fees: Pay in full at the start of each semester, or use the payroll deduction program.

Graduate assistants must carry between 9 to 15 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.

**Dissertation scholarships**, for doctoral candidates at dissertation stage, are service free and carry a stipend that is determined by the student's department. Dissertation scholars are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer term immediately preceding or following the year of appointment. You will also be required to pay the general fee (reduced), technology fee, facilities fee (including Armstrong Center), and transit fees. Fee increases for 2014-2015 will be determined at the June meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: <http://www.units.MiamiOH.edu/bur/>. Graduate assistants have two options for payment of fees: Pay in full at the start of each semester, or use the payroll deduction program.

**Graduate summer scholarships** are stipends of two \$900 payments made during the summer term. These stipends are awarded for a maximum of \$1,800 for the summer term, and there are no duties attached to the payment of this scholarship. The awards are given to graduate assistants and dissertation scholars who hold awards for one or two terms and meet the guidelines for these scholarships. Graduate assistants with half-time duties for two terms are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer term immediately preceding or following the year of appointment. You will also be required to pay the general fee (reduced), technology fee, facilities fee (including Armstrong Center), and transit fees. Fee increases for 2014-2015 will be determined at the June meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: <http://www.units.MiamiOH.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 terms.



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 Stafford Unsubsidized Loans, Federal Direct Graduate 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.gov](http://www.fafsa.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 [MiamiOH.edu/financialaid](http://MiamiOH.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 in the amount 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 no other aid resources). If you have any questions regarding

student loans, please call the Office of Student Financial Assistance 513-529-8734 and ask to speak to a Financial Assistance Counselor. You may visit the website at [MiamiOH.edu/financialaid](http://MiamiOH.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 credited to the student's Bursar account in accordance with Miami's disbursement schedule.

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 accrue 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 is deferred while a student is in school and attending at least 5 graduate credit hours per semester. Graduate students may borrow up to \$20,500 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). Direct Loan interest rates are determined each July 1. For more information about current rates visit [www.studentloans.gov](http://www.studentloans.gov).

To be eligible for the Federal Direct Graduate PLUS Loan, you must be enrolled at least half-time (5 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 accrue on the day the loan is fully disbursed to a student's account and continues until the loan is paid in full. While you are enrolled in school, you will automatically be placed in an in-school deferment status that allows postponement of payment on the Graduate PLUS loan until you graduate or drop below 5 graduate credit hours. 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. The interest rate for the PLUS loan and rates are determined each July 1. For more information about current rates visit [www.studentloans.gov](http://www.studentloans.gov).

## Private Loans

Miami will certify a private loan from any lender. Terms, fees, and borrowing limits of private loans differ. The yearly amount cannot exceed the annual cost of attendance minus other financial aid and resources. Private loans are not federally guaranteed and do not require filing the FAFSA. For more information on obtaining a private loan, visit [MiamiOH.edu/loans](http://MiamiOH.edu/loans).

## Student Loan Code of Conduct

The guiding principles for insuring the integrity of the student aid process and the ethical conduct of employees in regard to student loan practices are provided in the Miami University Student Loan Code of Conduct available on the loan pages at [MiamiOH.edu/loans](http://MiamiOH.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 [MiamiOH.edu/studentemployment](http://MiamiOH.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 prior to July 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 determine their GI Bill eligibility. To apply for benefits, complete the online application at [www.vabenefits.vba.va.gov/vonapp](http://www.vabenefits.vba.va.gov/vonapp). Veterans also need to submit an enrollment form to the Veterans Certifying Official at Miami, this form can be found at [MiamiOH.edu/veterans](http://MiamiOH.edu/veterans).

To be assured of advance payment, initial paperwork should be submitted to the Veterans Affairs Administration 45 days before classes begin. For more information or to contact the Veterans Certifying Official at Miami visit [MiamiOH.edu/veterans](http://MiamiOH.edu/veterans), email [veterans@MiamiOH.edu](mailto:veterans@MiamiOH.edu), or call 1-513-529-8703.

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 at [MiamiOH.edu/graduate-studies/](http://MiamiOH.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 University's Dolibois European Center (MUDEC), 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 faculty-led study tours are 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 comprised of both European professors and

Miami professors on assignment from the Oxford and regional campuses. The experience of living in a local homestay arrangement and the opportunity to explore Europe during vacation periods and weekends are integral parts of the MUDEC program.

If students intend to apply, they should plan their academic program carefully. One of the advantages of studying at the Center is that students may complete an entire Miami Plan Thematic Sequence and/or the Miami Plan Global Perspectives requirements in one semester or during the seven week summer workshop.

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. Rolling admissions thereafter. 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 students may apply their university scholarships or financial aid. In addition, to offset out-of-pocket costs, students may be eligible for a Dolibois European Center scholarship, interest-free loan, and airfare grant. Costs for summer and winter programs are based on Oxford campus tuition and fee rates. Honors Program students may be able to use their tuition waiver. A limited number of general scholarships are available for summer.

For more information, contact the Dolibois European Center Oxford Luxembourg Office, 218 MacMillan Hall (513-529-5050) or review information on the program's website: [www.MiamiOH.edu/luxembourg](http://www.MiamiOH.edu/luxembourg).

## International 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 and will, in turn, be provided these benefits when studying overseas. Academic credit for successful study at approved overseas institutions is guaranteed upon your return. Advance approval for the transfer of credit must be obtained in consultation with your academic advisor and with the Study Abroad Office, 216 MacMillan Hall (513-529-8600).

### Student Exchange Agreements

**Austria:** Vienna University of Economics and Business Administration

**China:** Peking University, Shanghai University of Finance and Economics, Beijing Jiaotong University

**Germany:** Rosenheim Institute of Technology (architecture only)

**Hong Kong:** Chinese University of Hong Kong, Hong Kong University of Science and Technology

**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.

**Japan:** Kansai Gaidai University, Rikkyo University, Doshisha University

**Mexico:** University of the Americas - Puebla

**South Korea:** University of Seoul, Korea University, Yonsei University (Seoul and Wonju campuses)

**Taiwan:** National Chung Cheng University

**United Kingdom:** University of Leicester, University of Glasgow

## Agreements of Cooperation

Other agreements with 50+ 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 Global Initiatives Office to determine if opportunities exist for study abroad at these institutions.

## Faculty-led Study Abroad and Away

Miami is a national leader in the number and variety of study abroad learning opportunities, and Miami faculty lead a variety of education abroad experiences

Faculty-led education abroad and domestic programs are directed by experienced Miami University faculty. Programs include all levels of foreign language immersed in host countries and discipline specific programs focused and engaged in the abroad location. Programs vary from two weeks during university breaks, or a full semester, and allow students to fulfill Global Miami Plan requirements.

Recent programs 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; engineering in Poland and Korea; and arts, culture, heritage, and archeology in the Bahamas, the Czech Republic, and Ghana. Language immersion programs include Italian, German, Arabic, Chinese, Spanish, and French. Examples of recent Study Away programs include: Engaging Chicago: Forging Sustainable Communities in a Global City, Inside Hollywood: Los Angeles, CA, and Tropical Marine Ecology of the Everglades: Florida Keys, and Bahamas.

Faculty-led study abroad programs are administered by Global Initiatives at Miami University. More information including program listings is available online at [studyabroad.MiamiOH.edu](http://studyabroad.MiamiOH.edu).

## Other Overseas Programs: Transfer Credit

Many American universities sponsor study abroad programs all over the world. Information is available in the Study Abroad Office, 216 MacMillan Hall or online at [studyabroad.MiamiOH.edu](http://studyabroad.MiamiOH.edu). 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 advisor before you apply. If you choose to enroll directly in an overseas institution, you should consult with your academic advisor and the study abroad advisor 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 Study Abroad Office, 216 MacMillan Hall (513-529-8600). 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 University 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 University Registrar's Office.

## Honors

### University Honors Program

A select number of students are invited every year to join the University Honors Program during the university admission process. 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 enhance one's Miami education by engaging in special honors seminars, independent research, study abroad and other intense learning while fulfilling one's degree program requirement. Students are required to complete a select number of designated Honors experiences (e.g., honors seminar classes).

Honors students have the option of living in honors-themed residence halls and applying for funding for research and other projects.

Students who are pursuing an Associate's Degree on the regional campuses also have the opportunity to participate in the University Honors Program. These students should contact the Honors Program directors on the regional campuses for information about the application process.

For more information about the University Honors Program, please contact the Honors Program Office, 513-529-3399, or visit the program's website at [www.honors.MiamiOH.edu](http://www.honors.MiamiOH.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 advisor about departmental honors; these programs vary from department to department. You graduate with departmental honors when you complete the program.

### President's List, Deans' List

The President's List recognizes the top three percent of undergraduate students within each division\* registered for a semester of 12 or more credit hours attempted for grades (A+ through F). The Deans' Lists recognize the next 17 percent of undergraduate students within each division registered for a semester of 12 or more hours attempted for grades (A+ through F). Students within each academic division must achieve the following grade point averages:

	President's List	Dean's List
College of Arts and Science	4.00	3.70
College of Creative Arts	4.00	3.70
College of Education, Health and Society	4.00	3.80
College of Engineering and Computing	4.00	3.60
College of Professional Studies & Applied Sciences	4.00	3.60
Farmer School of Business	3.95	3.60

The grade point standards used for the President's List and the Dean's List approximate the average GPA of the highest 3 percent of students in each academic division and the next 17 percent of student in each academic division, respectively, for the past three years. These criteria will remain unchanged.

Miami's News and Public Information Office notifies the hometown newspaper of each student eligible for the President's or Deans' Lists. Note that a confidentiality hold on a student's record will prevent his or her name from being published in the

hometown newspaper or on the Miami University website. Deans' and President's lists are considered finalized 30 days after the term and are not subsequently recalculated.

\*Note: Undergraduate students in non-degree programs who meet these same criteria will be included in the College of Arts and Science calculations.

## Graduation with Latin Honors

Effective with December graduation 2014, the criteria for graduation with distinction are divisionally based. Graduating students within each academic division must achieve the following cumulative grade point averages:

Latin Honors Beginning December 2014

	Summa Cum Laude	Magna Cum Laude	Cum Laude
College of Arts and Science	3.95	3.85	3.65
College of Creative Arts	3.90	3.80	3.70
College of Education, Health and Society	3.95	3.85	3.70
College of Engineering and Computing	3.90	3.80	3.60
College of Professional Studies and Applied Sciences	3.90	3.75	3.50
Farmer School of Business	3.90	3.75	3.50

Criteria are based on the average GPA within each division from the calendar years, 2009, 2010 and 2011. These criteria will remain unchanged. The grade point standards used for the distinction of summa cum laude approximates the average GPA of highest 2 percent of students in each academic division for the past three years. The standard used for magna cum laude approximates the average GPA of the next 5 highest percent of students in each academic division for the past three years, and the standard used for the cum laude designation approximates the average GPA of the next highest 10 percent of students within each academic division for the past three years, with typically no more than 17 percent being awarded honors within each division. Once every five years, the University Registrar and Office of Provost will conduct a review of these criteria and propose a change to criteria to University Senate if needed.

Students who graduate with distinction may wear cords at commencement based upon final grades of the last semester of attendance prior to commencement, and the commencement program will reflect that they may be graduating with distinction. Actual degree honors will be recalculated to include grades from the student's final semester and will be posted on the student's academic record.

In addition, for students who graduate with distinction, the diploma for the degree will designate the Latin Honors earned by the student. Students who earn two or more degrees receive a separate diploma for each degree. Each diploma will indicate the appropriate Latin Honors the student earned, using the criteria for Latin Honors of the academic division where each degree resides.

For graduation with distinction, a student pursuing a baccalaureate degree must have earned at least 64 credit hours from Miami University; a student pursuing an associate degree must have earned at least 32 credit hours from Miami University. For students who earn fewer than 64 hours from Miami toward a bachelor's degree or fewer than 32 hours from Miami toward an associate degree, the cumulative grade point average used at graduation to determine eligibility for honors is the lower of the following averages: (1) the average for all courses taken from Miami, or (2) the combined average calculated using the grades from all college-level courses.

Degree honors are considered finalized 30 days after graduation are not subsequently recalculated.

For students who have exercised the Fresh Start option, grades from all coursework taken at Miami University will be used in calculating eligibility for graduation with honors.

## 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 successfully completing the university-wide program will receive a notation on their transcript. Additional information about the program is available online (<http://www.cas.MiamiOH.edu/honors/current/ua.html>).

### Undergraduate Research Programs

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. Various program guidelines, application forms, and deadline dates are available at [www.MiamiOH.edu/research/](http://www.MiamiOH.edu/research/)

**First Year Research Experience (FYRE)** program provides first year students with opportunities to engage in research and to establish early contact with faculty mentors. This option requires students to: register for a 1 credit course to engage in common seminar/workshop experiences, to work 4-6 hours a week on a research project and to participate in the spring annual Undergraduate Research Forum.

**Doctoral-Undergraduate Research Opportunities Program (DUOS)** encourages graduate and undergraduate students to collaborate on a research project under the supervision of a faculty member in a Ph.D. granting department. Any Miami undergraduate student and any post-master's doctoral student in good standing who agrees to abide by program requirements are eligible to apply. Either student may initiate the application, but the undergraduate student will be the primary project author. The Graduate School provides funding for up to 10 grants of \$700-900 per project.

**Undergraduate Research Award Program** provides small grants for students to do independent research or other creative endeavors in any discipline. Applications are made to the Undergraduate Research Committee via OARS. Funding for the grants comes from alumni and friends of Miami. Approximately \$40,000 is available yearly for individual grants distributed twice a year. Typically, 90 to 100 grants are awarded ranging from \$200 to \$800 each.

**Undergraduate Summer Scholars Program (USS)** This nine-week summer program enables Miami undergraduates to do research or other creative activities in the summer with the supervision of an individual faculty mentor. 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, up to 6 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.

### 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 GPA of 3.00 or better.

For more information, contact the Department of Physics, 133 Culler Hall (513-529-5625) or the Department of Geology & Environmental Earth Science, 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 program 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 five years on active duty.

You can major in any field of study leading to a bachelor's degree; you can choose Navy 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.

**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 selected for the Advanced Program 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.MiamiOH.edu/learning](http://www.MiamiOH.edu/learning).

## The Oxford Pathway Program

The Oxford Pathway program is a short-term and intensive learning program for strong students who reside in southwestern counties of Ohio. Students in this program are offered courses and enhanced support for two terms. Students admitted into the Pathways program enroll in classes during the fall term at the MUH or MUM campus. Upon successful completion of the fall semester program requirements (earn at least 16 credit hours with a 2.00 grade point average), they are admitted as fully matriculated students on the MUO campus starting in the spring semester of their first year. It is important to note that some academic degree programs at Miami University Oxford may have more selective entrance requirements. Oxford Pathway students take a set of courses together on one of the regional campuses in the fall semester and have their own designated advisor throughout the first year who will assist them in planning for college success.

## 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

Service-Learning combines scholarship and experience through reflection, to deepen course content and enhance civic responsibility. At Miami, Service-Learning involves making connections between academic work and community service. As a result, you are able to gain real world skills and enhance your learning while contributing to the community. 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 [CommunityEngagement@MiamiOH.edu](mailto:CommunityEngagement@MiamiOH.edu).

## Programs and Services

### America Reads and America Counts

The America Reads and America Counts programs are funded through federal work-study. Through extensive training, tutors develop effective and efficient ways of working to help children improve their reading and math skills. America Reads tutors work on basic reading and writing skills with students in grades K-6. America Counts tutors focus on mathematic skills with students in grades K-9. The programs primarily serve children in Butler County.

Students interested in the America Reads or America Counts programs should complete an online application and will be interviewed by a student coordinator. Additionally, students must be eligible for federal work-study. Once hired, tutors are required to attend a mandatory four-hour training session prior to tutoring and participate in additional monthly trainings throughout the semester. For more information contact the office at 513-529-2961 or e-mail [CommunityEngagement@MiamiOH.edu](mailto:CommunityEngagement@MiamiOH.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, the Adopt A School program allows Miami students to volunteer in a way that easily fits their schedule and the needs of area agencies. The majority of placements are based in K-12 schools; however, opportunities with adults and older citizens are also available.

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 513-529-2961 or e-mail [adoptschool@MiamiOH.edu](mailto:adoptschool@MiamiOH.edu).

### EMPOWER I

EMPOWER I is a nine-week Service-Learning program intended for students at Miami University who are interested in expanding their understanding of social issues and their impact on communities. EMPOWER I is a rewarding, yet intensive, program that combines service, education, and critical personal investigation to foster social awareness, build community, and create a deeper understanding of diversity. Students in the Urban Teaching Cohort and Social Justice Studies Program will specifically explore the connection between economic and educational injustices.

Students meet weekly in the Office of Community Engagement and Service for the seminar portion. Students are expected to serve in their community a minimum of five times during the semester. Students and community partners mutually benefit as service will reinforce what students are learning in the course. Students will also complete an Urban Plunge, where they will stay overnight in an inner city to experience the region, and visit and serve with agencies that address social justice issues covered in the course. For more information, please contact the Office of Community Engagement and Service at 513-529-2961.

### EMPOWER II

EMPOWER II is for students who have completed the EMPOWER I program and want to gain a deeper and more focused understanding of the education system in urban schools. EMPOWER II also provides students with the opportunity to serve their community through a minimum of five service experiences during the semester through similar mutually beneficial partnerships between students and the community.

EMPOWER II students meet weekly in the Office of Community Engagement and Service, as well as McGuffey Hall.

Students in EMPOWER II will also complete an Urban Plunge, where the focus is on local elementary schools and the social justice issues those schools face on a daily basis. For more information, please contact the Office of Community Engagement and Service at 513-529-2961.

### MU Volunteers ListServ

For students interested in community service or looking for a way to get involved, the MU Volunteers ListServ provides a weekly update on service opportunities ranging from one-time needs to ongoing service experiences. To subscribe, please email [CommunityEngagement@MiamiOH.edu](mailto:CommunityEngagement@MiamiOH.edu).

### Noble Hour & the President's Volunteer Service Award

For students looking to take part in community service, The Office of Community Engagement and Service utilizes Noble-Hour to match students to service opportunities. Students who register under the OCES Community can track and enter service hours through Noble Hour and may qualify to receive the President's Volunteer Service Award at graduation. This honor is awarded based on different levels of service hours completed over a student's time at Miami. For more information, please visit: [www.MiamiOH.edu/CommunityEngagement](http://www.MiamiOH.edu/CommunityEngagement).

## Leadership Development

### Harry T. Wilks Leadership Institute

The Harry T. Wilks Leadership Institute provides curricular and co-curricular opportunities to develop ethical leadership capacity and competencies. Participation in Wilks sponsored programs will enable the development of your leadership style and philosophy and put you on the path to becoming a transformational leader. In addition to our programs, the Wilks Leadership Institute also collaborates closely with other leadership development programs on campus and can, therefore, assist you in the identification of programs and opportunities that best fit your developmental needs and desires. To begin your leadership journey, contact the Wilks Leadership Institute at [wilksleadership@MiamiOH.edu](mailto:wilksleadership@MiamiOH.edu) or 513-529-0830 or visit our website at [www.MiamiOH.edu/wilks](http://www.MiamiOH.edu/wilks).

### LeaderShape

Miami LeaderShape is an intensive, energizing and unique six-day educational experience designed to develop young adults to lead with integrity. Each session is comprised of approximately 60 men and women sponsored by various organizations from diverse ethnic, religious and cultural backgrounds. One of the most important outcomes of LeaderShape is that participants will work to establish visions for change that they will seek to achieve through leadership. Following completion of LeaderShape, the Staying in Action program will assist you in implementing your vision. If you have questions about LeaderShape, please contact [wilksleadership@MiamiOH.edu](mailto:wilksleadership@MiamiOH.edu) or 513-529-0830 or check out the national website at [www.leadershape.org](http://www.leadershape.org).

### 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.



Career Services (513-529-3831) 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.MiamiOH.edu/wilks](http://www.MiamiOH.edu/wilks), or [wilksleadership@MiamiOH.edu](mailto:wilksleadership@MiamiOH.edu), or 513-529-0830.

## **Emerging Leader LLC**

The Emerging Leader LLC is a living-learning community involving a one-year residence for first-year students who are dedicated to putting their convictions into action and gain a deeper understanding about their personal leadership capabilities. The Emerging Leader LLC is sponsored by the Office of Student Activities and Leadership, the Wilks Leadership Institute, and the Office of Community Engagement and Service, and examines leadership from multiple perspectives. For more information, visit <http://MiamiOH.edu/student-life/residence-life/living-learning-communities/LLCs/index.html>.

## **Wilks Leadership LLC**

The Wilks Leadership LLC is a new living-learning community involving a one-year residence for upperclass students who are interested in a holistic leadership development experience. The community will participate in leadership workshops and experiences that will focus on development in the domains of knowledge, relationships, ethics, well-being and service. For more information, please visit [www.MiamiOH.edu/wilks](http://www.MiamiOH.edu/wilks) or contact us at [wilksleadership@MiamiOH.edu](mailto:wilksleadership@MiamiOH.edu) or 513-529-0830.

# The College of Arts and Science

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## Advising Office

146 Upham Hall

Phone: 513-529-3031

[www.cas.MiamiOH.edu](http://www.cas.MiamiOH.edu)

## Degrees and Majors Offered

### **Bachelor of Arts in:**

American Studies  
Anthropology  
Biochemistry  
Biology  
Black World Studies  
Botany  
Chemistry  
Classical Humanities  
Classical Languages  
Diplomacy and Global Politics  
Earth Science  
East Asian Languages & Cultures  
Economics  
English  
Environmental Earth Science  
French  
Geography  
Geology  
German  
Gerontology  
History  
Individualized Studies  
Italian Studies  
Journalism (requires a second major)  
Latin American, Latino/a and Caribbean Studies  
Linguistics  
Mathematics  
Media and Culture (requires a second major)  
Microbiology  
Philosophy  
Physics  
Political Science  
Psychology  
Public Administration  
Religion  
Russian, East European, & Eurasian Studies  
Social Justice Studies  
Sociology  
Spanish  
Strategic Communication (requires a second major)  
Urban and Regional Planning  
Women's, Gender, and Sexuality Studies  
Zoology

### **Bachelor of Arts in International Studies**

### **Bachelor of Science in:**

Biochemistry  
Biological Physics  
Biology  
Botany  
Chemistry  
Engineering Physics  
Geology  
Mathematics  
Mathematics and Statistics  
Medical Laboratory Science  
Microbiology  
Physics  
Quantitative Economics

Speech Pathology and Audiology

Statistics

Zoology

### **Co-majors in:**

Analytics  
Comparative Media Studies  
Energy  
Environmental Science  
Interactive Media Studies  
Premedical Studies  
Sustainability

### **Minors in:**

Actuarial Science  
Aerospace Studies  
Aging and Health  
Aging and Public Policy  
American Studies  
Anthropology  
Applied Sociological Research  
Arabic  
Black World Studies  
Chinese  
Classical Humanities  
Classical Languages  
Creative Writing  
Crime, Law and Social Justice Studies  
Criminology  
Digital Game Studies  
Disability Studies  
East Asian Studies  
Economics  
English Literature  
Ethics, Society, and Culture  
European Area Studies  
Film Studies  
French  
Geography  
Geology  
German  
Gerontology  
Global Health Studies  
Global Perspectives on Sustainability  
History  
History of Philosophy  
Horticulture  
Individualized Studies  
Interactive Media Studies  
Interdisciplinary Studies  
Italian  
Japanese  
Jewish Studies  
Latin American Latino/a Caribbean Studies  
Linguistics  
Lusophone Studies  
Mathematics  
Medieval Studies  
Middle East and Islamic Studies  
Molecular Biology  
Naval Science  
Neuroscience  
Operations Research Methods  
Physics  
Plant Biology  
Plant Biotechnology  
Political Science  
Religion  
Rhetoric/Writing  
Russian  
Russian, East European, and Eurasian Studies  
Social Justice and Inequalities  
Sociology  
Spanish  
Statistical Methods  
Statistics  
Urban and Regional Analysis  
Women's, Gender, and Sexuality Studies

## General Information

The College of Arts and Science has as its primary purpose provision for a liberal education. A liberal education explores diverse approaches to understanding and transmitting knowledge as these have been developed by the 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.

## 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 2.00 and a 2.00 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 Advisor 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). The CAS Requirement emphasizes skills and competencies needed for the 21st century, as well as breadth of knowledge in the humanities, social sciences, and natural sciences (biological and physical). Together with the depth of knowledge acquired within a major, the CAS Requirement prepares students for a variety of educational, professional, and career aspirations

If you are working toward the Bachelor of Arts (A.B.), you must fulfill all sections of the CAS Requirement; 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

CAS-QL Quantitative Literacy

### CAS-W Writing Competence

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 American Sign Language, 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 Advisors 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 as they are expressed in societies and cultures. 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 nine semester hours from courses within the College of Arts and Science in two of the following four categories: history, literature, philosophy, and religion.

Humanities courses include all courses from the departments of History, (including CLS 101 and 102), Philosophy (except PHL 273), Comparative Religion and literature courses offered by the departments of Classics; English; French and Italian; German, Russian, and East Asian Languages; and Spanish and Portuguese and Theatre. These literature courses are designated CAS-B-LIT in the Courses of Instruction section of this Bulletin.

The remaining three hours may be taken from the categories listed above or the following interdisciplinary courses: AAA 201; AMS 205, 207; ARC 188; ART 185, 186, 187, 188, 286; BWS 204, 383; COM 281; DST 169, 247; ENG 171, 202, 238, 383; FRE 212, 255; FST 201, 204, 206, 222, 255, 281, 383; GER 151, 212, 232, 255; ITL 221, 222; JRN 101; MAC 206; RUS 212; WGS 202, 282; and WST 201.

### 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 semester hours from courses within the College of Arts and Science in two of the following six categories: anthropology, economics, geography, political science, psychology, and sociology/gerontology.

Social Science courses include all courses from the Departments of Anthropology; Economics; Geography (except GEO 121, 424, 431, and 432); Political Science; Psychology; and Sociology and Gerontology.

The remaining three hours may be taken from the categories listed above or the following interdisciplinary courses that also meet this requirement are: AAA 201; BWS 151, 156; COM 136; LAS 207; MAC 143; SPA 127, 211, 223; WGS 201.

### CAS-D Natural Science (10 semester hours)

Liberally educated students learn to understand natural phenomena through observations and experimentation. Physical sciences are involved largely with the 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 biology, botany, chemistry, geology, microbiology, physical geography, and physics. 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 & Environmental Earth Science, and Physics; PHY 118; GEO 121, and GEO 424.

Biological science includes all courses offered by the departments of Biology, Microbiology 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.

**Requirement:** You must complete at least three semester hours chosen from the courses listed below. 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.

Formal reasoning courses include: CLS/ENG/SPN 303, GER/ATH 309; MTH 121, 151, 153, 222, 249, 251; PHL 273, 373; and STA 261.

You should consult the mathematics and statistics placement guide in the Academic Planning chapter or an advisor in the department if you are thinking about taking a mathematics course for this requirement.

### CAS-QL Quantitative Literacy (3 semester hours)

Liberally educated students learn the "habit of mind" associated with reasoning and solving quantitative problems from a wide array of authentic contexts and everyday life situations.

**Requirement:** Students must take at least one CAS course designated as QL beyond the MP V and CAS E. The same course may also be applied to the other MP and CAS requirements except for MP V and CAS E.

Quantitative literacy courses include: ATH 496; BIO/MBI116, BIO 161; CHM 111, 375; ECO 311; ENG 222; GEO 205, 242; GLG 111, 121, 141; HST 202; IMS/JRN/STA 404; JRN 412; MTH 435, 453; POL 101, 306; PSY 293, 294, 324\*; SOC 262; STA/ISA 333; STA 363, 475; WGS 204.

\* Only specific sections of PSY 324 are designated QL; see the departmental advisor for information.

### CAS-W Writing Competence

Liberally educated students develop advanced writing abilities in their majors. Students learn the writing practices and conventions of their discipline or interdisciplinary area and communicate the results of research in their area to a general public.

Effective writing is learned gradually and through ongoing attention and sustained feedback. As such, each Bachelor of Arts major has a course or set of courses embedded in the requirements for the major. These courses are identified in the Bachelor of Arts major descriptions.

Miami Plan Foundation (MPF)	Fulfills Both (MPF & CAS)	College of Arts & Science (CAS)
<b>I. Composition (6 hrs)</b> ENG 109/111 and 112		<b>CAS-A Foreign Language:</b> Pass a course at the 202 level, or higher; <b>NO</b> courses in translation Earn required score on CLEP or AP test; see Bulletin for details
<b>II. Fine Arts, Humanities, &amp; Social Science (9 hrs)</b>  A. Fine Arts (3 hrs) B. Humanities (3 hrs)          C. Social Science (3 hrs)	<b>MPF Fine Arts courses that also fulfill CAS-B:</b> ARC 188; ART 185, 187, 188, 276, 286; BWS 276; MUS 185, 189; THE 101, 191 <b>MPF Humanities courses that also fulfill CAS-A:</b> FRE 202 <b>MPF Humanities courses that also fulfill CAS-B:</b> 1. HST 111, 112, 121, 122, 197, 198, 224, 225, 245, 254, 260, 296; BWS 224, 225; CLS 101, 102; LAS 260 2. ENG 122, 123, 124, 125, 131, 132, 133, 134, 141, 142, 143, 144, 161, 162, 163, 165, 246, 247, 248, 251, 252, 254, 255, 256, 267, 271; AAA 248; AMS 246, 247, 248, 271; ART 279; CHI 251, 252, 255, 257; CLS 121; FRE 131; GER 231, 251, 252, 321, 322; JPN 231, 255, 279; LAS 254; RUS 137, 255, 256, 257; SPN 315 3. PHL 101, 103, 104, 105, 106, 131 4. REL 103, 133, 203, 254, 275, 286, 314; AAA 203; RUS 133 Additional Hours: AAA 201; AMS 205, 207, 222; ARC 188; ART 185, 187, 188, 286; BWS 204, 276, 383; COM 206, 247, 281; DST 169, 247; ENG 169, 171, 202, 238, 383; FRE 212, 255; FST 201, 204, 206, 222, 255, 281, 383; GER 151, 212, 232, 255; HST 211; IDS 206; IMS 171, 238; ITL 221, 222; JRN 101; LAS 204; MUS 185, 204; POR 204, 383; RUS 212; WGS 202, 383; WST 201 <b>MPF Social Science courses that also fulfill CAS-C:</b> 1. ATH 145, 155, 175, 185, 206, 405; LAS 208 2. ECO 131, 201, 202 3. GEO 101, 111, 159, 201, 207, 208, 209; BWS 209; ITS 208 4. POL 101, 102, 142 5. PSY 111, 210; AAA 210; BWS 210 6. SOC 151, 153, 165, 207, 208, 272, 279; SJS 159, 165; GTY 154; AAA 207; BWS 279; DST 272; EDP 272; ITS 208 Additional hours: AAA 201; BWS 151; COM 136; EDP 101, 201; ITS 201; KNH 276; LAS 207; MAC 143; SPA 127, 211, 223; WGS 201	<b>CAS-B Humanities (9 hrs)</b> Take 6 hours from <b>two</b> of the following four areas in the College: 1. History - any <b>HST</b> course; <b>CLS</b> 101, 102  2. Literature - any CAS-B Lit course in <b>AMS, ENG, CLS, THE</b> , or foreign language  3. Philosophy - any <b>PHL</b> course except 273, 373  4. Religion - Any <b>REL</b> course; <b>AAA</b> 203  Take an additional 3 hours from any of the areas above or the following MPF courses: <b>AAA</b> 201, <b>AMS</b> 205, 207, 222; <b>ARC</b> 188; <b>ART</b> 185, 187, 188, 276, 286; <b>BWS</b> 204, 276, 383; <b>COM</b> 206, 247, 281; <b>DST</b> 169, 247; <b>ENG</b> 169, 171, 202, 238, 383; <b>FRE</b> 212, 255; <b>FST</b> 201, 204, 206, 222, 255, 281, 383; <b>GER</b> 151, 212, 232, 255; <b>IDS</b> 206; <b>ITL</b> 221, 222; <b>IMS</b> 171, 238; <b>JRN</b> 101; <b>LAS</b> 204; <b>MUS</b> 185, 189, 204; <b>POR</b> 204, 383; <b>RUS</b> 212; <b>WGS</b> 202, 383; <b>WST</b> 201  <b>CAS-C Social Science (9 hrs)</b> Take 6 hours from two of the following six areas in the College: 1. Anthropology - any <b>ATH</b> course, <b>LAS</b> 208 2. Economics - any <b>ECO</b> course 3. Geography - any <b>GEO</b> course (except <b>GEO</b> 121, 424, 431, 432); <b>BWS</b> 209; <b>ITS</b> 208 4. Political Science - any <b>POL</b> course 5. Psychology - any <b>PSY</b> course 6. Sociology & Gerontology - any <b>GTY/SJS/SOC</b> ; <b>AAA</b> 207; <b>BWS</b> 279; <b>DST</b> 272; <b>EDP</b> 272; <b>ITS</b> 208  Take an additional 3 hours from any of the areas above or the following courses: <b>AAA</b> 201; <b>BWS</b> 151, 156; <b>COM</b> 136; <b>EDP</b> 101, 201; <b>ITS</b> 201; <b>KNH</b> 276; <b>LAS</b> 207; <b>MAC</b> 143; <b>SPA</b> 127, 211, 223; <b>WGS</b> 201
<b>III. Global Perspectives (6-9 hrs)</b> A. Study Abroad (min. 6 hrs)  -OR-  B. Global Courses (9 hrs)	<b>MPF Global Courses that also fulfill CAS-A:</b> FRE 202 <b>MPF Global Courses that also fulfill CAS-B:</b> AAA 201, 203; AMS 207; ART 276; BWS 204, 276, 383; CHI 257; ENG 254, 256, 267, 383; FRE 131; FST 204, 383; GER 232; HST 197, 198, 245, 260, 296; LAS 204, 254, 260; MUS 185, 204; POR 204, 383; REL 133, 203, 286; RUS 133, 256, 257; WGS 383 <b>MPF Global Courses that also fulfill CAS-C:</b> AAA 201, 207, 210; ATH 135, 145, 155, 175, 185, 206, 358, 405; BWS 156, 210; FST 135; GEO 101, 159; GTY 260; ITS 201; LAS 208; POL 102; PSY 210; SJS 159, 487; SOC 153, 207, 487; WGS 201	
<b>IV. Natural Science (9 hrs)</b> (including a lab) A. Biological Science (at least 3 hrs)   B. Physical Science (at least 3 hrs)	<b>MPF Natural Science courses that also fulfill CAS-D:</b> courses in parentheses ( ) are lab courses <b>Biological Science:</b> BIO 101, (113), (114), (115), (116), 121, 126, 131, (155), (161), (171), 176, 181, (191); MBI 111, (115), (116), 121, (123), 131, (143), (161) <b>Physical Science:</b> CHM 111, (111L), (131), 141/141R, (144); GEO (121), 122; GLG 111, (115L), 121, 141; PHY 101, (103), 111, 118, 121, 131, 141, 171, 172, (173), (174), 181, 182, (183), (184)	<b>CAS-D Natural Science (10 hrs)</b>  Take 3 hours from courses in the College in the biological sciences (Any course in <b>BIO</b> , <b>MBI</b> , or <b>GEO</b> 431, 432)  Take 3 hours from courses in the College in the physical sciences (Any course in <b>CHM</b> , <b>GLG</b> , <b>PHY</b> , or <b>GEO</b> 121, 122, 424).  Take additional hours from either category above; one course must be, or include, a lab designated as <b>CAS-D/LAB</b> in the Bulletin.
<b>V. Mathematics, Formal Reasoning, and Technology (3 hrs)</b>	<b>MPF Mathematics, Formal Reasoning, &amp; Technology courses that also fulfill CAS-E:</b> ATH 309; CLS 303; ENG 303; GER 309; MTH 121, 151, 249; PHL 273; SPN 303; STA 261  <b>MPF Social Science courses that also fulfill CAS-QL:</b> POL 101  <b>MPF Natural Science courses that also fulfill CAS-QL:</b> BIO 116, 161; CHM 111; GLG 111, 121, 141; MBI 116	<b>CAS-E Formal Reasoning (3 hrs)</b>  • Take 3 hours within the College of Arts and Science from the list to the left, or <b>PHL</b> 373  <b>CAS-QL Quantitative Literacy (3 hrs)</b>  Take 3 hours within the College of Arts and Science, beyond the Miami Plan Foundation V and CAS-E, that are designated as QL: <b>ATH</b> 496; <b>BIO</b> 116, 161; <b>CHM</b> 111, 375; <b>ECO</b> 311; <b>ENG</b> 222; <b>GEO</b> 205, 242; <b>GHS</b> 201; <b>GLG</b> 111, 121, 141; <b>HST</b> 202; <b>IMS</b> 404; <b>JRN</b> 404; 412; <b>MBI</b> 116; <b>MTH</b> 435, 453; <b>POL</b> 101, 306; <b>PSY</b> 293, 294, 324; <b>SOC</b> 262; <b>STA</b> 333, 363, 404, 475; <b>WGS</b> 204
<b>Historical and Cultural Perspective Requirements:</b>	Students satisfy these requirements by taking appropriately designed courses in any foundation area; the same courses may meet both a foundation requirement and a Historical and/or Cultural Perspective requirement.	
<b>Miami Plan Focus:</b>	Focus: ≈12 hours (Thematic Sequence ≈9 hours; Senior Year Capstone: 3 hours)	
<b>Advanced hours (200 level and above): 56 hours minimum</b>	<b>Hours in the major: 24 hours minimum; some departments require more</b>	
<b>TOTAL SEMESTER HOURS REQUIRED FOR GRADUATION: 128 hours (minimum)</b> <b>GRADE POINT AVERAGE REQUIRED FOR GRADUATION: 2.00 cumulative; 2.00 average for courses in department of major</b>		

Basic Requirements: Bachelor of Science (B.S.)

Miami Plan (MP)	College of Arts and Science (CAS)
English Composition .....6	CAS-A, Foreign Language .....0-14
Fine Arts, Humanities, Social Science .....9	(See chart on preceding page.)
Global Perspectives .....6-9	In addition, B.S. students only: passing a reading examination in a foreign language over
Natural Science.....9	suitable material from within student's discipline.
Mathematics, Formal Reasoning, Technology .....3	
Perspectives (Historical and Cultural)	
Focus .....12	
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: 2.00 cumulative and 2.00 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	Social Science	Natural Science
American studies	Anthropology	Biochemistry
Black world studies	Diplomacy and Global Politics	Biology
Classical humanities	Economics	Biological Physics
Classical languages	Geography	Botany
East Asian languages and cultures	Gerontology	Chemistry
English (all major programs)	Journalism	Earth Science
French	Media and Culture	Engineering physics
German	Political science	Environmental Earth Science
History	Psychology	Geology
International studies	Public administration	Mathematics
Italian Studies	Social justice studies	Medical laboratory science
Latin American, Latino/and Caribbean studies	Sociology	Microbiology
Linguistics	Speech pathology and audiology	Physics
Philosophy	Strategic communication	Statistics
Religion	Urban and regional planning	Zoology
Russian, East European, and Eurasian studies	Women's, gender and sexuality studies	
Spanish		

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 advisors 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

International Studies  
 Italian Studies  
 Journalism  
 Linguistics  
 Latin American Latino/a and Caribbean Studies  
 Women's, Gender, and Sexuality Studies

**Co-Majors:**  
 Analytics  
 Comparative Media Studies  
 Energy  
 Environmental Science  
 Interactive Media Studies  
 Premedical Studies  
 Sustainability

**Minors:**  
 American Studies  
 Black World Studies  
 East Asian Studies  
 Ethics, Society and Culture  
 European Area Studies  
 Film Studies

Global Perspectives on Sustainability  
 Interdisciplinary Studies  
 Interactive Media Studies  
 Jewish Studies  
 Latin American Studies  
 Linguistics  
 Medieval Studies  
 Middle East and Islamic Studies  
 Molecular Biology  
 Neuroscience  
 Women's, Gender, and Sexuality 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 3.50 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, BIO 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 or his/her designee.

## 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.

### Medical Laboratory Science

Medical 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 medical laboratory science. In the 4+1 program, you take four years at Miami to earn an A.B. or B.S. in biology, 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.

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 Global 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 University Registrar's Office, you will be awarded the B.S. in medical 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 Medical Laboratory Sciences in the U.S.

For more information about either program in medical laboratory science, see the program advisor 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 Advisors. 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 2.50, 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)

BIO 115 and 116 Biological Concepts (4, 4) **or**  
 BIO 191 Plant Biology (4) **plus** BIO 116 (4) **or** BIO 114 (4)  
 BIO 203 Introduction to Plant Cell and Molecular Biology (4)  
 BIO 204 Evolution of Plant Biodiversity (4)

### Related Hours

ECO 201 Principles of Microeconomics (3)  
 MTH 151 Calculus I (5) **or**  
 MTH 251 Calculus II (4) **or**  
 MTH 249 Calculus II (5)  
 STA 261 Statistics (4)  
 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

## Co Majors

**Note:** Co-Majors are designed to provide a complementary perspective to a student's primary major. There is no specific degree designation for the co-major, students receive the degree designation of their primary major.

### Analytics Co-Major

The analytics co-major is truly interdisciplinary and provides a framework for thinking about the collection and use of data that will complement the pursuit of any major across the university. Students will take courses that develop skills for handling structured and unstructured data sets as well as developing models to predict behavior in data-rich environments.

### Comparative Media Studies Co-Major

The comparative media studies co-major will bring together students from across the university to collaborate and innovate in interdisciplinary modes of media analysis and production. This co-major will train students to analyze media from a variety of disciplinary perspectives, from qualitative ethnography in sociology to textual analysis in English, from spatial analysis in geography to aesthetic approaches in art history. It is intended to supplement a student's existing major by adding a media concentration.

### Energy Co-Major

The goal of the energy co-major is to provide students with interdisciplinary training in energy that complements majors in architecture, business, engineering, natural science and social science. The co-major will provide students with a common set of principles in energy systems engineering.

### 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.

### Interactive Media Studies Co-Major

The co-major in interactive media studies is an interdisciplinary co-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 (advisor approval required)

An application and "portfolio" are required for admittance. There is a minimum 2.50 GPA requirement and a limited number of students are admitted each year.



## Premedical Studies Co-Major

Provides a broad-based premedical background and prepares students to pursue advanced degrees in medicine as well as other healthcare related fields. Integrates comprehensive, regularly scheduled premedical advising with courses that cover fundamental concepts in the biological, physical, and social sciences required for admission to medical school or other health professional schools, and/or in preparation for the Medical College Admission Test (MCAT). A co-major must be taken in conjunction with a primary major, which provides the significant depth and breadth of an academic discipline; it cannot be taken independently.

**Note:** Students are not required to complete the co-major for successful application and admittance to medical school or other health professional schools. Premedical Studies courses as well as access to services provided by the Mallory-Wilson Center for Healthcare Education and the Premedical Advisory Committee are available to all students.

## Sustainability Co-Major

The sustainability 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 sustainability co-major complements the primary major, which provides significant depth and breadth in an academic discipline.

## 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 2.00 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 3.00 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 advisor 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)

#### Complete all of these:

CIT 214 Database Design and Development (3)  
GEO 441 Introduction to Geographic Information Systems (3)  
GEO 442 Advanced Geographic Information Systems (3)  
GEO 443 Python Programming for ArcGIS (3)  
GEO 448 Techniques and Applications of Remote Sensing (3)  
ISA 245 Database Systems and Data Warehousing (3)

#### Select 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. In 2012-13, 95% of Miami senior applicants were accepted to law school, compared to a national average of 84%.

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 (GPA) and Law School Admission Test (LSAT) scores. In fact, the median GPA 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 advisor 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 advisor 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 biology, zoology, microbiology, chemistry or biochemistry.

A recommended program for your first year is:

BIO/MBI 115, 116 Biological Concepts (4, 4) **or**  
 BIO 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 Composition and Rhetoric, 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 173, 174 or 181, 182 and 183, 184). A year of biology (BIO/MBI 115, 116 or BIO 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 advisor as early as possible in preparing for one of these careers.

For information, talk with one of our pre-medicine advisors in biology or in chemistry and biochemistry, microbiology, physics, or psychology. Pre-dentistry and pre-veterinary advisors are also in biology.

## 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 biology, zoology, chemistry, or microbiology.

Optometry schools require the Optometry Admission Test. It is available only online ([www.opted.org/info\\_oat.cfm](http://www.opted.org/info_oat.cfm)).

A recommended program for your first year is:

BIO/MBI 115, 116 Biological Concepts (4, 4)  
 CHM 141, 142 College Chemistry (3, 3)  
 CHM 144, 145 College Chemistry Laboratory (2, 2)  
 ENG 111, 112 Composition and Rhetoric, 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 advisor in the Department of Biology.

## 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, biology or microbiology, physics and statistics. Since specific requirements vary, contact schools of interest, and plan your curriculum accordingly. For more information, consult with the pre-pharmacy advisor in the Department of Biology.

## 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*):

BIO/MBI 115 Biological Concepts (4) **or**  
 BIO 113 Animal Diversity (4)  
 BIO/MBI 116 Biological Concepts (4) **or**  
 BIO 114 Principles of Biology (4)  
 BIO 201 Human Anatomy (4) (meets human anatomy prerequisite)  
 BIO 305 Human Physiology (4) **or**  
 BIO 161 Principles of Human Physiology (4) (meets human physiology prerequisite)  
 CHM 141, 142 (3, 3)  
 CHM 144, 145 College Chemistry Laboratory (2, 2) **or**  
 CHM 153, 161  
 ENG 111 Composition and Rhetoric (3) **or**  
 ENG 112 Composition and Literature (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 173, 174 Physics Laboratory (1, 1)  
 PSY 111 Introduction to Psychology (4)  
 PSY 231 Developmental Psychology (3)  
 STA 261 Statistics (4)

### 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 advisor in the Department of Biology 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, media and culture
Archaeology	Anthropology, classics, geology, religion
Bacteriology	Microbiology
Biology	Biology, botany, microbiology, zoology
City planning	Urban and regional planning
Creative writing	English/creative writing
Criminology	Sociology, criminology minor
Environmental science	Biology, botany (environmental science emphasis*), earth science, environmental earth science, geography, geology (environmental science emphasis*), zoology; environmental science co-major, sustainability co-major
Foreign affairs	Diplomacy and global politics, 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, urban and regional planning
Journalism	Journalism, media and culture
Language	Linguistics, speech pathology and audiology, foreign languages
Neuroscience	Biology, zoology, psychology
Personnel work	Psychology, public administration
Pharmacy	Biology, chemistry, microbiology, zoology
Physical therapy	Biology, psychology, zoology
Public relations	Strategic communication, journalism
Social work	Sociology, psychology
Statistics	Mathematics and statistics, statistics, analytics co-major
Television and radio	Media and culture, journalism

\* 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 College 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 advisors from both the College of Arts and Science and the College of Education, Health and Society.

The following departments offer the possibility of combining the teacher licensure program with an Arts and Science major: Biology, Chemistry, Classical Languages, Economics, English, French, Geography, Geology & Environmental Earth Science, German, History, Mathematics, Physics, Political Science, and Spanish.

For information, contact the Department of Teacher Education in the College 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.

The Program in American Studies offers an interdisciplinary major that explores American culture, in all its complexity, from a variety of perspectives. In learning to make connections between a range of fields and disciplines from history to art, politics to religious studies, mass media to popular culture, among many others, students gain a multifaceted understanding of the United States in global context. The program fosters flexible thinking, creative problem solving skills, synthetic analysis, strong writing and oral presentation, an understanding of and familiarity with multiple kinds of media and texts, a broad understanding of social, cultural, and historical contexts, and intercultural awareness. By working with faculty to define an area of concentration, students come away with the intellectual skills and perspective necessary to understand, contextualize, and critically engage the opportunities and challenges of our complex, changing, interdependent world.

#### Program Requirements (34 semester hours)

##### Core courses (16 hours)

AMS 205 Introduction to American Cultures (3)  
AMS 206 Approaches to American Culture (3)  
AMS 301 American Identities (3)  
AMS 302 Transnational America (3)  
AMS 401 Capstone in American Studies (4)

##### Areas of Concentration (18 hours)

Students must 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.

**Diversity and Difference:** This area of concentration focuses on intercultural awareness and the diversity of cultures that come together in the United States, addressing issues of race, gender, class, religion, ethnicity, sexuality, transnational identity, and other social categories.

**Global Perspectives on American Culture:** (developed in consultation with an advisor)

This area focuses on global perceptions and analysis of American culture and values, and on the position of the United States in the global world. AMS 207 is a prerequisite for this concentration and will count toward the 18 hours in concentration requirements. The rest of the credits will be taken from AMS courses at our partner universities.

**Popular Culture, Media, Consumerism:** This area of concentration focuses on consumer culture, popular culture, and mass media, examining the origins, meanings, and practices of the modern market place.

**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 advisor) This area of concentration allows a student to work with a faculty advisor 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.

**Note:** Students seeking the Bachelor of Arts in American Studies meet the College of Arts and Science writing in the major requirement by completing the following course: AMS 206.

## Analytics Co Major

For information, contact the Department of Statistics, 311 UPH (513-529-7828) or the Department of Information Systems and Analytic, 3095 FSB (513-529-4826).

Analytics describes the extensive use of data to guide evidence-based decision-making. This field has emerged during a time when massively large data sets are being collected throughout society. Analytics lives at the junction between numerous

traditional disciplines including information systems and statistics. This program will provide a framework for thinking about the collection and use of so-called "big data" and students will develop skills for handling structured and unstructured data sets and for developing models to predict behavior in data-rich environments.

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:

**Complete a major in one of the divisions of the university.**

**CORE coursework to be satisfied by all co-majors (18-19 hours):**

#### **Data Description and Summarization (choose one course):**

ISA 205 Business Statistics (4) **or**  
STA 261 Statistics (4) **or**  
STA 301 Applied Statistics (3) **or**  
STA 368 Introduction to Statistics (4)

#### **Data Management - Structured (choose one sequence):**

CSE 148 Fundamentals of Programming and Problem Solving (3) **and**  
ISA 235 Information Technology and the Intelligent Enterprise (3) **and**  
ISA 245 Database Systems and Data Warehousing (3)

**OR**

CSE 174 Fundamentals of Programming and Problem Solving (3) **and**  
CSE 271 Object-Oriented Programming (3) **and**  
CSE 274 Data Abstraction and Data Structures (3) **and**  
CSE 385 Database Systems (3)

#### **Regression Models (choose one course):**

ISA 291 Applied Regression Analysis in Business (3) **or**  
STA 363 Introduction to Statistical Modeling (3) **or**  
STA 463 Regression Analysis (4)

#### **Visualizing Data and Digital Dashboards (required):**

STA/IMS/JRN 404 Advanced Data Visualization (3)

In addition to the common core, each co-major is required to complete a particular track of study. These tracks reflect a focus on a particular area of application of analytics or advanced methods.

### Track 1: Business Analytics

Note: For IS majors, at least 18 hours beyond the business core must be courses not counted toward the IS major.

**Required (6 hours) - Note that ISA 291 must be taken as the core option for this track.**

ISA 414 Managing Big Data (3)  
ISA 491 Introduction to Data Mining in Business (3)

#### **Take two of these (6 hours):**

ISA 404 Business Intelligence and Knowledge Management (3)  
ISA 444 Business Forecasting (3)  
STA 402 Statistical Programming (3)

#### **Take one of these (3 hours):**

ISA 321 Quantitative Analysis of Business Problems (3)  
ISA/STA 333 Nonparametric Statistics (3)  
ISA/STA 365 Statistical Quality Control (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
ISA/STA 432 Survey Sampling in Business (3)  
ISA 444 Business Forecasting (3)  
ISA 480 Topics in Decision Sciences (1-3; maximum 3)  
STA 402 Statistical Programming (3)  
STA 427 Introduction to Bayesian Statistics (3)

### Track 2: Predictive Analytics

#### **Required (15 hours):**

ISA 321 Quantitative Analysis of Business Problems (3) **or**  
MTH 432 Optimization (3) **or**  
CSE 372 Stochastic Modeling (3)  
STA 402 Statistical Programming (3)  
STA 427 Introduction to Bayesian Statistics (3)  
STA 467 Statistical Learning (3)  
ISA 414 Managing Big Data (3)

Note: Other tracks are expected such as bioinformatics, health care, and geographical analytics.

## 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, students 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 C)

#### A. Core Requirements

##### **All of these:**

ATH 212 Introduction to Archaeological Theory and Methods (4)  
ATH 231 Foundations of Cultural Anthropology (4)  
ATH 255 Foundations of Biological Anthropology (4)  
ATH 265 Introduction to Linguistic Anthropology (4)  
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.

#### **Engaging the Other:**

ATH 235 Imagining and Encountering the Anthropological Other (3)  
ATH 254 Introduction to Russian and Eurasian Studies (3)  
ATH 301 Intercultural Relations (3)  
ATH 303 Native American Cultures (4)  
ATH 304 Native North America: Anthropological Perspectives (3)  
ATH 305 Latin America: Anthropological Perspectives (3)  
ATH 306 Russia and Eurasia: Anthropological Perspectives (3)  
ATH 307 The Middle East: Anthropological Perspectives (3)  
ATH 308 South Asia: Anthropological Perspectives (3)  
ATH 329 Religions of Africa (3)  
ATH 335L Multiculturalism in Europe: Anthropological Perspectives (3)  
ATH 358 Travelers, Migrants, and Refugees: Transnational Migration and Diasporic Communities (3)  
ATH 364 Language and Culture in Native North America (3)  
ATH 366 African Oral Traditions (3)  
ATH 411 Applied Anthropology (3)  
ATH 425 Ethnographic Field Methods (3)  
ATH 426 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 329 Religions of Africa (3)  
ATH 331 Social Anthropology (3)  
ATH 335L Multiculturalism in Europe: Anthropological Perspectives (3)  
ATH 345 Global Media, Ethnography, and Film (3)  
ATH 358 Travelers, Migrants and Refugees (3)  
ATH 361 Language and Power (3)  
ATH 368 Key Questions in Psychological Anthropology (3)  
ATH 384 Anthropology of Capitalism: Russia (3)  
ATH 403 Anthropology of Religion (3)  
ATH 405 Food, Taste, and Desire (3)  
ATH 411 Applied Anthropology (3)  
ATH 425 Ethnographic Field Methods (3)  
ATH 426 Ethnographic Field Research (4-16)  
ATH 428 Anthropology of Women's Health (3)  
ATH 434 Anthropology of Democracy and Citizenship (3)

#### **The Encultured Body:**

ATH 325 Identity, Race, Gender, Class (3)  
ATH 348 Introduction to Medical Anthropology (3)  
ATH 368 Key Questions in Psychological Anthropology (3)

ATH 378 Doctors, Clinics, and Epidemics (3)  
 ATH 428 Anthropology of Women's Health (3)  
 ATH 448 Developing Solutions in Global Health (3)  
 ATH 497 Socio-Ecology of Primates (3)  
 ATH 498 Evolution of Human Behavior (3)

#### **Material Worlds:**

ATH 351 Archaeological Field Methods (8; no more than 4 to major)  
 ATH 388 Culture, Art, and Artifact (3)  
 ATH 405 Food, Taste, and Desire (3)  
 ATH 409 Sustainability: European challenges and strategies (3)  
 ATH 415 Caribbean Archaeology Field & Lab Methods (6)  
 ATH 416 Archaeological Site Analysis (3)  
 ATH 471 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 355 Fossil Evidence for Human Evolution (3)  
 ATH 388 Culture, Art, and Artifacts (3)  
 ATH 414 Caribbean Archaeology (3)  
 ATH 416 Archaeological Site Analysis (3)  
 ATH 431 Anthropology & Global History (3)  
 ATH 496 Observing Primate Behavior (4)

#### **Language, Communication & Culture:**

ATH 309 Introduction to Linguistics (4)  
 ATH 345 Global Media, Ethnography, and Film (3)  
 ATH 361 Language and Power (3)  
 ATH 364 Language and Culture in Native North America (3)  
 ATH 366 African Oral Traditions (3)  
 ATH 378 Doctors, Clinics, and Epidemics (3)  
 ATH 465 Ethnography of Communication (3)

#### **Evolution, Ecology, & Behavior:**

ATH 348 Introduction to Medical Anthropology (3)  
 ATH 355 Fossil Evidence for Human Evolution (3)  
 ATH 395 Primate Biology and Behavior (3)  
 ATH 403 Anthropology of Religion (3)  
 ATH 431 Anthropology & Global History (3)  
 ATH 471 Ecological Anthropology (3)  
 ATH 496 Observing Primate Behavior (4)  
 ATH 497 Socio-Ecology of Primates (3)  
 ATH 498 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 Ethnographic Field Research (4-16)  
 ATH 448 Developing Solutions in Global Health (3)  
 ATH 496 Observing Primate Behavior (4)

Note: Variable Topic, Honors & Independent Study courses will be placed in the appropriate clusters based on content.

ATH 177, 277, 377, 477 Independent Studies (0-5)  
 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 will be allocated to the appropriate cluster, topic dependent. Students may count one introductory course (ATH 135, ATH 145, ATH 155, ATH 175, or ATH 185) as an elective toward the major.

Students seeking the Bachelor of Arts in Anthropology meet the College of Arts and Science writing in the major requirement by completing the following courses: any 200, 300 level course and ATH 421.

## 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 (38-39 semester hours)

#### **All of these:**

CHM 141, 141H or CHM 141R and  
 CHM 142, 142M or 142H College Chemistry (3, 3)  
 CHM 144M or 144H or with approval CHM 144 College Chemistry Laboratory (2)  
 CHM 145M or 145H or with approval CHM 145 College Chemistry Laboratory (2)  
 CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)  
 CHM 254, 255 Organic Chemistry Laboratory for Chemistry Majors (2, 2)  
 CHM 432 Fundamentals of Biochemistry (4)  
 CHM 438 Biochemistry Laboratory (2)  
 CHM 471 Biophysical Chemistry I (3) (preferred) or  
 CHM 451 Physical Chemistry for Chemistry Majors (3) and  
 CHM 472 Biophysical Chemistry II (3) (preferred) or  
 CHM 452 Physical Chemistry for Chemistry Majors (3)  
 CHM 491 Chemistry in Societal Issues (3) or  
 CHM 492 Independent Research Capstone in Chemistry (3)

#### **Related Hours (25-26 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)

#### **Additional Course**

#### **An additional course is required from the following list:**

BIO 203 Introduction to Cell Biology (3)  
 BIO 305 Human Physiology (4)  
 BIO 342 Genetics (3)  
 STA 301 Applied Statistics (3)

Three credit hours at the 200 level or above in one of the following departments: BIO, CHM, CPB, GLG, MBI, PHY and STA.

#### **Choices can also be made from the following:**

MTH 222 Introduction to Linear Algebra (3)  
 MTH 231 Elements of Discrete Mathematics (3)  
 MTH 245 Differential Equations for Engineers (3)  
 MTH 252 Calculus III/Honors Calculus III (4)  
 MTH 347 Differential Equations (3)

Students seeking the Bachelor of Arts in Biochemistry meet the College of Arts and Science writing in the major requirement by completing the following courses: CHM 255, 375 and 491 or 492.

## 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. Chemistry and required related courses cannot be taken on a credit/no-credit basis.

## Program Requirements (46-47 semester hours)

#### **All of these:**

CHM 141, 141H or CHM 141R and  
 CHM 142, 142M or 142H College Chemistry (3, 3)  
 CHM 144M or 144H or with approval CHM 144 College Chemistry Lab (2)  
 CHM 145M or 145H or with approval CHM 145 College Chemistry Laboratory (2)  
 CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)  
 CHM 254, 255 Organic Chemistry Laboratory for Chemistry Majors (2, 2)  
 CHM 375 Analytical Chemistry for Majors (3)  
 CHM 432 Fundamentals of Biochemistry (4)  
 CHM 438 Biochemistry Laboratory (2)  
 CHM 471 Biophysical Chemistry I (3) (preferred) or  
 CHM 451 Physical Chemistry for Chemistry Majors (3) and  
 CHM 472 Biophysical Chemistry II (3) (preferred) or  
 CHM 452 Physical Chemistry for Chemistry Majors (3)  
 CHM 491 Chemistry in Societal Issues (3) or  
 CHM 492 Independent Research Capstone in Chemistry (3)

#### **Advanced Chemistry Coursework:**

#### **An additional eight (8) advanced credit hours in chemistry are required, of which at least two (2) are an advanced lab course chosen from:**

CHM 419 Synthesis Lab (2) or  
 CHM 424 Advanced Experimental Techniques in Structural and Functional Genomics (4) or  
 CHM 456 Chemical Measurements II (2)

**At least four (4) of these hours are to be selected from the special topics offerings in CHM 430 (Special Topics in Biochemistry, (2).**

**The remaining topics can be chosen from:**

CHM 410 Topics in Chemistry Education (3)  
 CHM 417 Advanced Inorganic Chemistry (3)  
 CHM 426 Spectroscopic Identification of Structure (3)  
 CHM 429 Polymer Chemistry (2)  
 CHM 430 Topics in Biochemistry (2-3)  
 CHM 450 Topics in Organic Chemistry (2-3)  
 CHM 454 Instrumental Analysis (3)  
 CHM 460 Topics in Physical Chemistry (2-3)

**Related Hours (28-29 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 Courses:**

**Additional courses are required from the following list.**

**Minimum three (3) credit hours in mathematics or statistics chosen from:**

MTH 222 Introduction to Linear Algebra (3)  
 MTH 231 Elements of Discrete Mathematics (3)  
 MTH 245 Differential Equations for Engineers (3)  
 MTH 252 Calculus III/Honors Calculus III (4)  
 MTH 347 Differential Equations (3)  
 STA 301 Applied Statistics (4)  
 BIO 466 Bioinformatics Computing Skills (3)

**Minimum six (6) credit hours chosen from the following:**

BIO/MBI 116 Biological Concepts (4)  
 BIO 203 Introduction to Cell Biology (3)  
 BIO 342 Genetics (3)  
 BIO/MBI 485 Bioinformatics Principles (3)  
 PHY 421 Molecular and Cellular Biophysics (4)  
 PHY 422 Physics for Medicine and Biology (4)

## Biological Physics Bachelor of Science

For information, contact the Department of Physics, 133 Culler Hall (513-529-5625).

A biological physics major explores the physical behavior of biological and biologically-inspired systems, applying physical techniques to solve problems in physics, biology, and medicine. The program is multi-disciplinary, drawing from coursework in physics, biology, chemistry, and mathematics. It combines a broad science curriculum with physical and mathematical rigor in preparation for careers in biological physics, biophysics, medical physics, medicine and biomedical engineering.

**Program requirements:**

(77-85 Semester hours)

**Biology (7)**

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
 or

BIO 114 Principles of Biology (4)  
 BIO 203 Introduction to Cell Biology (3)

**Chemistry (14-15)**

CHM 141/144 College Chemistry and Lab (3, 2)  
 CHM 142/145 College Chemistry and Lab (3, 2)  
 CHM 241/244 Organic Chemistry and Lab (3, 2) or  
 CHM 231 Fundamentals of Organic Chemistry (4)

**Mathematics (15-17)**

Calculus sequence ending with MTH 252 Calculus III (12-14)  
 STA 301 Applied Statistics (3)

**Physics (29)**

PHY 181/183 The Physical World and Lab (4, 1)  
 PHY 182/184 The Physical World and Lab (4, 1)  
 PHY 281 Contemporary Physics I: Foundations (3)  
 PHY 282 Contemporary Physics II: Frontiers (3)  
 PHY 293 Contemporary Physics I and Lab (3, 1)  
 PHY 292/294 Electronic Instrumentation and Lab (2, 2)  
 PHY 286 Introduction to Computational Physics (3)  
 PHY 421 Molecular and Cellular Biophysics (4) or  
 PHY 422 Physics for Medicine and Biology (4)

**Electives: Select FOUR with at least ONE from each category (12-17)****Category 1: PHYSICS**

PHY 483 Mathematical Methods in Physics (4)  
 Any course numbered 400 and above, excluding seminar, research, and independent study courses (PHY 400, 410, 440, 477, 480, 488) (3-4)

**Category 2: NATURAL AND APPLIED SCIENCE**

(some courses may have pre- or co-requisites)  
 BIO 305 Human Physiology (4)  
 BIO 425 Environmental Plant Physiology (4)  
 CHM 242/245 Organic Chemistry and Lab (3, 2)  
 CHM 332 Outlines of Biochemistry (4) or  
 CHM 432 Fundamentals of Biochemistry (4) or  
 CHM 433 Biochemistry (3)  
 CHM 471 Biophysical Chemistry I (3)  
 CHM 472 Biophysical Chemistry II (3)  
 CPB 418 Biological Transport Phenomena (4)  
 KNH 468/468L Physiology and Biophysics of Human Activity and Lab (3, 1)  
 MBI 201 General Microbiology (4)  
 A course from Physics category (3-4)

**Category 3: MATHEMATICS**

MTH 222 Introduction to Linear Algebra (3)  
 MTH 347 Differential Equations (3)  
 PHY 483 Mathematical Methods in Physics (4)

## Biology Bachelor of Arts

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

Biology is a natural science concerned with the study of life and living organisms. The biology major can be tailored to meet the needs of students interested in the health sciences, animal or plant physiology, cell and molecular biology, ecology or environmental studies, or evolution and systematics. It is possible to complete a Biology Major while earning either the Bachelor of Arts or Bachelor of Science.

**Program Requirements:**

(32 semester hours)

**Core Courses: (8 hrs)**

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
 BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

**Advanced course requirements: (24 hrs)**

The remaining 24 semester hours must be fulfilled by taking courses at the 200 level or above. Advanced microbiology (MBI) courses and IES 275 can count for up to nine semester hours of this requirement. No more than three semester hours of independent study/research/internship may apply to the major. At least one 400 level course (minimum three semester hours) must be taken.

**Three of these four courses are required:**

BIO 203 Introduction to Cell Biology (3)  
 BIO 206 Evolutionary Biology (3) or  
 BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)  
 BIO 209 Fundamentals of Ecology (3)  
 BIO 342 Genetics (3)

**Laboratory course requirement:**

At least one advanced course must have a laboratory component (three semester hours of independent research, taken at the 200-level or above, can be used in lieu of a formal course to fulfill this laboratory requirement).

**Related (17 hrs)****One year of chemistry is required:**

CHM 141 or 141M or 141R, 142 or 142M College Chemistry (3-4, 3) and  
 CHM 144, 145 College Chemistry Laboratory (2, 2)

**One course in Statistics: (3-4 hrs)**

Remaining related courses can be chosen from ATH, CHM, CIT, CPB, CSE, ENV, GLG, GEO, IES, MTH, MBI, PHY or STA.

**Writing in the Major - Biology:**

To ensure that all students in the Biology major complete the College of Arts and Science Writing Requirement and become experienced and proficient writers in the discipline, upon graduation, each student must show evidence of proficiency in both of the following two writing genres:

1. *Popular science writing for a non-specialist audience.* To fulfill this requirement, students must successfully complete two W Biology courses at the 200- or 300- level which provide writing experience in the genre of popular science writing for a non-specialist audience.  
 2. *Technical science writing for a specialist audience.* To fulfill this requirement, students must successfully complete at least one of the following two technical writing tracks:

a) A student may opt to complete one Biology W course at the 400-level which provides writing experience in the genre of technical science writing for a specialist audience.

b) A student may opt to complete an independent study which provides writing experience in the genre of technical science writing for a specialist audience. Students choosing this track should have their proposed writing experience

evaluated by the departmental representative for writing in the major at the time they initiate their independent study. Upon completion of an independent study, each student must submit, with the signed support of a faculty member, a letter of certification indicating that s/he has successfully completed the technical science writing requirement.

## Biology Bachelor of Science

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

Biology is a natural science concerned with the study of life and living organisms. The biology major can be tailored to meet the needs of students interested in the health sciences, animal or plant physiology, cell and molecular biology, ecology or environmental studies, or evolution and systematics. It is possible to complete a Biology Major while earning either the Bachelor of Arts or Bachelor of Science.

### Program Requirements: (40 semester hours)

#### Core Courses: (8 hrs)

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

#### Advanced course requirements: (32 hrs)

The remaining 32 semester hours must be fulfilled by taking biology courses at the 200 level or above. Advanced microbiology (MBI) courses and IES 275 can count for up to nine semester hours of this requirement. No more than three semester hours of independent study/research/internship may apply to the major. At least one 400 level course (minimum three semester hours) must be taken.

#### All four courses are required:

BIO 203 Introduction to Cell Biology (3)  
BIO 206 Evolutionary Biology (3) or  
BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)  
BIO 209 Fundamentals of Ecology (3)  
BIO 342 Genetics (3)

#### Laboratory course requirement:

At least two advanced courses must have a laboratory component (three semester hours of independent research can be used in lieu of one of these courses).

#### At least one of these plant-focused courses is required:

BIO 205 Dendrology (4)  
BIO 221 Plant Propagation (4)  
BIO 302 Plant Taxonomy (4)  
BIO 306 Basic Horticulture (3)  
BIO 314 Plant and Fungal Diversity (4)  
BIO 401 Plant Ecology (3)  
BIO 402 Plant Anatomy (3)  
BIO 403 Plant Development (3)  
BIO 425 Environmental Plant Physiology (4)  
BIO/GEO 431 Global Plant Diversity (3)

#### At least one of these animal focused courses is required:

BIO 201 Human Anatomy (4)  
BIO 305 Human Physiology (4)  
BIO 311 Vertebrate Zoology (4)  
BIO 312 Invertebrate Zoology (4)  
BIO 361 Patterns in Development (4)  
BIO 408 Ornithology (4)  
BIO 409 Herpetology (4)  
BIO 410 Mammalogy (4)  
BIO 411 General Entomology (4)  
BIO 435 Winter Biology (3)  
BIO 449 Biology of Cancer (3)  
BIO 453 Animal Physiological Ecology (4)  
BIO 452 Nerve and Muscle Physiology (4)  
BIO 454 Endocrinology (3)  
BIO 457 Neuroanatomy (3)  
BIO 465 Animal Behavior (4)  
BIO 469 Neurophysiology (3)

#### Related: (33 hrs)

#### Two years of chemistry are required:

CHM 141 or 141M or 141R, 142 or 142M College Chemistry (3-4, 3) and  
CHM 144, 145 College Chemistry Laboratory (2, 2)

#### And one of these sequences:

CHM 241, 242 Organic Chemistry (3,3) and  
CHM 244, 245 Organic Chemistry Laboratory (2,2) or  
CHM 231 Fundamentals of Organic Chemistry (4) and

CHM 332 Outlines of Biochemistry (4)

#### One semester of physics is required:

PHY 171, 183 College Physics (3) and Introductory Physics Laboratory (1) or  
PHY 181, 183 The Physical World and Introductory Physics Laboratory (1)

#### One course in Statistics and one calculus course: (7-9 hrs)

#### One microbiology course (200 level or above): (3-4 hrs)

## 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 and political experiences, values and expressions of Africans and people of African descent in the U.S. and throughout the world. It focuses on the changing constructions of race, class, and gender in local and global contexts. Moreover, the study of African diasporic communities will better prepare all students to cope with the ever-increasing demands of a multicultural world. This program stresses critical thinking, reflection, social justice and informed action.

### Program Requirements (34-40 semester hours)

#### 1. Take either one of these:

BWS 151 Introduction to Black World Studies (4) or  
BWS 156 Introduction to Africa (4)

#### 2. Take a minimum of one course from Areas A - D.

#### 3. Choose any four additional courses from across the curriculum.

#### Area A. African Experiences and Cultures

##### Choose ONE of the following:

ART/BWS 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)  
BIO 496 Biodiversity of Kenya (5)  
BWS/GEO 209 Civilizations of Africa (3)  
BWS/HST 224 Africa to 1884 (3)  
BWS/HST 225 The Making of Modern Africa (3)  
BWS 267 National Cinemas: African Film (3)  
BWS 339 Contemporary African Politics (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)  
HST 444 Ancient Egypt (3)  
POL 438 Africa in the Global Economy (3)

#### Area B. African American Experiences and Cultures

##### Choose ONE of the following:

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/REL 343 African-American Religions (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****Choose ONE of the following:**

BWS/FST/LAS/MUS/POR 204 Brazilian Culture Through Popular Music (3)  
 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 & Diasporas (3)  
 GEO 473 Development and Underdevelopment (3)  
 GEO 475 Global Periphery's Urbanization (3)

**Area D. Perspectives on Gender, Race, Class, and Ethnicity****Choose ONE of the following:**

BWS/CLS 222 Race and Ethnicity in Antiquity (3)  
 BWS/HST 243 History of the Atlantic Slave Trade, 1400s to 1800s (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 383 By or About (Afro-) Brazilian Women (3)  
 BWS 370I/AMS 310I Race & Popular Culture in the US (3)  
 BWS/HST 386 Race in U.S. Society (3)  
 BWS/ENG/WGS 437 Black Feminist Theory (3)  
 BWS/ARC 427 The American City Since 1940 (3)  
 BWS/SOC 448 The African American Experience (3)  
 BWS/GEO 455 Race, Urban Change, and Conflict in America (3)  
 BWS/GTY 472 Race, Ethnicity & Aging (3)  
 POL 326 Comparative Ethnic Politics (3)  
 PSY 325 Psychology of Prejudice and Minority Experience (3)  
 SOC 372 Social Stratification (3)  
 WGS 370A Black Women Writers (3)

**4. One Writing**

BWS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)

**5. Students seeking a Bachelor of Arts in Black World Studies meet the College of Arts and Science writing in the major requirement by completing the following courses: AAA/AMS/BWS/LAS/WGS 211, BWS/ENG/WGS 432 or BWS/SOC/SJS 470.**

**6. Black World Studies Related Hours (12 hours)**

Students must choose 4 additional courses (Black World Studies Related Hours) from course offerings listed in Areas A - D in the Program to fulfill all their requirements for the major. The Penny Lectures, independent studies, occasional seminars, tutorials, internships, and summer workshops may be used to fulfill BWS related hours. Students must seek the permission of their BWS advisor or Director prior to taking these courses or participating in these internships, tutorials and workshops if they wish to have them counted toward the Area Requirements

## Botany Bachelor of Arts

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

For students majoring in both Biology and Botany, ONLY five courses can count in both majors, for a maximum of 18 hours. The five options that can apply to both majors are:

1. BIO/MBI 115 or BIO 113 or BIO 191 (4 semester hours)
2. BIO/MBI 116 or BIO 114 (4 semester hours)
3. BIO 203 (3 semester hours)
4. BIO 204 or BIO 206 or BIO 209 (3-4 semester hours)
5. BIO 342 (3 semester hours)

The Minor in Horticulture, Minor in Plant Biotechnology, Minor in Molecular Biology and/or the Co-major in Environmental Science may be completed along with the A.B. to obtain an emphasis in these areas.

**Program Requirements:**

(30 semester hours, 22 hours must be advanced)

**ALL of these:**

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) and  
 BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
 or

BIO 191 Plant Biology (4)  
 Global Miami Plan (Biological Science Foundation Course) (3) with the exception of BIO F107  
 BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)

**ONE of these:**

BIO 425 Environmental Plant Physiology (4)

BIO 490 Botany Capstone Seminar (1)

**Choose at least ONE course in applied botany:**

BIO 221 Plant Propagation (4)  
 BIO 244 Viticulture and Enology (3)  
 BIO 255 Introduction to Biotechnology (3)  
 BIO 306 Basic Horticulture (3)

**Choose at least ONE course in plant diversity:**

BIO 205 Dendrology (4)  
 BIO 302 Plant Taxonomy (4)  
 BIO 314 Plant and Fungal Diversity (4)

**Choose at least ONE course in genetics, cell biology, or physiology:**

BIO 203 Introduction to Cell Biology (3)  
 BIO 342 Genetics (3)  
 BIO 402 Plant Anatomy (3)  
 BIO 403 Plant Development (3)  
 BIO 425 Environmental Plant Physiology (4)

**The following courses may be applied to the major:**

BIO 209 Fundamentals of Ecology (3)  
 BIO 241 Botanical Principles in Landscape Gardening (3)  
 BIO 333 Field Ecology (3)  
 BIO 340 Internship (1-16)  
 BIO 351 Environmental Education: Focus on Natural History (4)  
 BIO 364 Molecular Techniques (2)  
 BIO 401 Plant Ecology (3)  
 BIO 424 Advanced Experimental Techniques in Structural and Functional Genomics (4)  
 BIO 431 Global Plant Diversity (3)  
 BIO 432 Ecoregions of North America (3)  
 BIO 466 Bioinformatics Computing Skills (3)  
 BIO 467 Conservation Biology (3)  
 BIO 480 Departmental Honors (1-6; maximum 6)  
 BIO 481 Theory of Electron Microscopy (2)  
 BIO 482 Scanning Electron Microscopy Laboratory (2)  
 BIO 483 Transmission Electron Microscopy Laboratory (3)  
 BIO 485 Bioinformatics Principles (3)

Note: One course must be at the 300 or 400 level. No more than three hours of research/internship may count toward the major. Research/internship hours must be taken credit/no credit.

**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, Environmental Science, Geography, Geology & Environmental Earth Science, Mathematics (151, 251, or 252 recommended), Microbiology, 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.

Students seeking the Bachelor of Arts in Botany meet the College of Arts and Science writing in the major requirement by completing the following courses: BIO 204 and 490 or 425.

## Botany Bachelor of Science

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

For students majoring in both Biology and Botany, ONLY five courses can count in both majors, for a maximum of 18 hours. The five options that can apply to both majors are:

1. BIO/MBI 115 or BIO 113 or BIO 191 (4 semester hours)
2. BIO/MBI 116 or BIO 114 (4 semester hours)
3. BIO 203 (3 semester hours)
4. BIO 204 or BIO 206 or BIO 209 (3-4 semester hours)
5. BIO 342 (3 semester hours)

The Minor in Horticulture, Minor in Plant Biotechnology, Minor in Molecular Biology and/or the Co-major in Environmental Science may be completed along with the B.S. to obtain an emphasis in these areas.

**Program Requirements: Basic Major**

(40 semester hours, 28 must be advanced hours)

**ALL of these:**

BIO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) and  
 BIO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) or  
 BIO 191 Plant Biology (4) and  
 Global Miami Plan (Biological Science) (3) with the exception of BIO F107  
 BIO 203 Introduction to Cell Biology (3)  
 BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)

**One of these (fulfills the CAS writing requirement):**

BIO 425 Environmental Plant Physiology (4)



BIO 490 Botany Capstone Seminar (1)

**Choose at least ONE course in applied botany:**

BIO 221 Plant Propagation (4)  
BIO 244 Viticulture and Enology (3)  
BIO 255 Introduction to Biotechnology (3)  
BIO 306 Basic Horticulture (3)

**Choose at least ONE course in plant diversity:**

BIO 205 Dendrology (4)  
BIO 302 Plant Taxonomy (4)  
BIO 312 Invertebrate Zoology (4)

**Choose at least ONE course in genetics, cell biology, or physiology:**

BIO 342 Genetics (3)  
BIO 402 Plant Anatomy (3)  
BIO 403 Plant Development (3)  
BIO 425 Environmental Plant Physiology (4)

**Choose at least ONE course in ecology:**

BIO 209 Fundamentals of Ecology (3)  
BIO 351 Environmental Education: Focus on Natural History (4)  
BIO 431 Global Plant Diversity (3)  
BIO 432 Ecoregions of North America (3)  
BIO 467 Conservation Biology (3)

**The following courses may also be applied to the major:**

BIO 241 Botanical Principles in Landscape Gardening (3)  
BIO 333 Field Ecology (3)  
BIO 340 Internship (1-16)  
BIO 364 Molecular Techniques (2)  
BIO 400 Capstone Seminar: Contemporary Issues in Biology (3)  
BIO 401 Plant Ecology (3)  
BIO 424 Advanced Experimental Techniques in Structural and Functional Genomics (4)  
BIO 466 Bioinformatics Computing Skills (3)  
BIO 480 Departmental Honors (1-6; maximum 6)  
BIO 481 Theory of Electron Microscopy (2)  
BIO 482 Scanning Electron Microscopy Laboratory (2)  
BIO 485 Bioinformatics Principles (3)

Note: No more than three hours of research/internship may count toward the major. Research/internship hours must be taken credit/no credit.

**Related Hours**

**Thematic Sequence in Chemistry (18 hours)**

**ONE of these:**

PHY 171, 172 College Physics (3, 3) and  
PHY 173, 174 Physics Laboratory (1, 1) or  
PHY 181, 182 The Physical World (4, 4) and  
PHY 183, 184 Physics Laboratory (1, 1)  
GLG 111 The Dynamic Earth (3)  
GLG 121 Environmental Geology (3)  
GLG 141 Geology of U.S. National Parks (3)  
GEO 121 Earth's Physical Environment (4)

**ONE of these:**

STA 261 Statistics (4)  
STA 301 Applied Statistics (3)  
STA 368 Introduction to Statistics (4)  
STA 462 Inferential Statistics (3)  
MTH 151 Calculus I (5)  
MTH 251 Calculus II (4)  
MTH 252 Calculus III (4)

Note: For graduate study in biological sciences, many require calculus and/or statistics, and some require a physics sequence.

## 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 and required related courses cannot be taken on a credit/no-credit basis.

**Program Requirements**

(32 semester hours)

**All of these:**

CHM 141, 141H or CHM141R and  
CHM 142, 142M or 142H College Chemistry (3, 3)  
CHM144M or 144H or with approval CHM 144 College Chemistry Lab (2)

CHM 145M or 145H or with approval CHM 145 College Chemistry Laboratory (2)  
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)  
CHM 254, 255 Organic Chemistry Laboratory for Chemistry Majors (2, 2)  
CHM 375 Analytical Chemistry for Majors (3)  
CHM 451 Physical Chemistry for Chemistry Majors (3) (preferred) or  
CHM 471 Biophysical Chemistry I (3) and  
CHM 452 Physical Chemistry for Chemistry Majors (3) (preferred) or  
CHM 472 Biophysical Chemistry II (3)  
CHM 491 Chemistry in Societal Issues (3) or  
CHM 492 Independent Research Capstone in Chemistry (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 any of the following departments: BIO, CHM, CPB, GLG, MBI, PHY and STA.

**Choices can also be made from the following:**

MTH 222 Introduction to Linear Algebra (3)  
MTH 231 Elements of Discrete Mathematics (3)  
MTH 245 Differential Equations for Engineers (3)  
MTH 252 Calculus III/Honors Calculus III (4)  
MTH 347 Differential Equations (3)

Students seeking the Bachelor of Arts in Chemistry meet the College of Arts and Science writing in the major requirement by completing the following courses: CHM 255, 375 and 491 or 492.

## 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. Chemistry and required related courses cannot be taken on a credit/no-credit basis.

**Program Requirements**

(46 semester hours)

**All of these:**

CHM 141, 141H or CHM141R and  
CHM 142, 142M or 142H College Chemistry (3, 3)  
CHM144M or 144H or with approval CHM 144 College Chemistry Lab (2)  
CHM 145M or 145H or with approval CHM 145 College Chemistry Laboratory (2)  
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)  
CHM 254, 255 Organic Chemistry Laboratory for Chemistry Majors (2, 2)  
CHM 375 Analytical Chemistry for Majors (3)  
CHM 451 Physical Chemistry for Chemistry Majors (3) or  
CHM 471 Biophysical Chemistry I (3) and  
CHM 452 Physical Chemistry for Chemistry Majors (3) or  
CHM 472 Biophysical Chemistry II (3)  
CHM 491 Chemistry in Societal Issues (3) or  
CHM 492 Independent Research Capstone in Chemistry (3)

**Advanced Chemistry Coursework: An additional fourteen (14) advanced credit hours (200 level or above) in chemistry are required, of which at least two (2) are an advanced lab courses chosen from:**

CHM 419 Synthesis Lab (2) or  
CHM 456 Chemical Measurements II (2)

**Additional hours can be chose from the following:**

CHM 410 Topics in Chemistry Education (3)  
CHM 417 Advanced Inorganic Chemistry (3)  
CHM 426 Spectroscopic Identification of Structure (3)  
CHM 429 Polymer Chemistry (2)  
CHM 430 Topics in Biochemistry (2-3)  
CHM 432 Fundamentals of Biochemistry (4)  
CHM 450 Topics in Organic Chemistry (2-3)  
CHM 454 Instrumental Analysis (3)  
CHM 460 Topics in Physical Chemistry (2-3)

**Related Hours** (22-23 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 Courses (minimum of 3 hours in mathematics or statistics):**

MTH 222 Introduction to Linear Algebra (3)

MTH 231 Elements of Discrete Mathematics (3)  
 MTH 245 Differential Equations for Engineers (3)  
 MTH 252 Calculus III (4)  
 MTH 347 Differential Equations (3)  
 STA 301 Applied Statistics (4)

## 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)

#### Choose TWO of the following:

CLS 101 Greek Civilization in its Mediterranean Context (3)  
 CLS 102 Introduction to Roman Civilization (3)  
 CLS 121 Classical Mythology (3)

#### Choose ONE of the following:

ART 381 Greek and Roman Architecture (3)  
 ART 382 Greek and Roman Sculpture (3)  
 ART 383 Greek and Roman Painting (3)

#### Choose ONE of the following:

CLS 401 Age of Pericles (3)  
 CLS 402 Age of Augustus (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 advisor for any related hours courses.

Knowledge of at least one other foreign language is recommended.

Students seeking the Bachelor of Arts in Classical Humanities meet the College of Arts and Science writing in the major requirement by completing one of the following courses at the 200 level: CLS 235, 212 or 211; one of the following courses at the 300 level: CLS 331 or 361; and one of the following courses: CLS 401 or 402 (capstone). There is a rotation system for the 200 and 300 level courses. One at each level will count for the requirement each year.

## 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College 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 advisor to make up an integrated plan of study. You must obtain the written approval of your advisor for any related hours courses.

Knowledge of at least one other foreign language is recommended.

Students seeking the Bachelor of Arts in Classical Languages meet the College of Arts and Science writing in the major requirement by completing the following courses: LAT 310 and 410.

## Comparative Media Studies Co Major

For information, contact the Department of Media, Journalism and Film, 160 Bachelor Hall (513-529-7472).

Comparative Media Studies explores media in a broad sense, including not only traditional news and entertainment media but also areas such as medical imaging, data visualization, and geographic mapping. Students will compare a variety of media technologies, focusing on the ways media are studied by different disciplines and have been organized across different historical and cultural contexts.

The CMS curriculum is highly flexible, allowing students to create a self-designed major and is ideal for students interested in gaining experience engaging with a wide range of media technologies. 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 (32 semester hours)

**Complete a major in one of the divisions of the university.**

#### Core (14 hrs)

CMS 201 Introduction to Comparative Media (4)  
 CMS 301 Comparative Approaches to Media Studies (3)  
 CMS 401 Senior Seminar in Comparative Media Studies (3)  
 MAC 143 Introduction to Media (3)

#### Critical/Analytical (9 hrs)

In consultation with your advisor, identify 3 courses from across the university relevant to your track. At least one of these courses must be a CMS 350 course. Students will be responsible for completing a project connecting that course content to track-specific concepts/tools. If deemed appropriate by your advisor, that project can be completed through the course's standard workload. Otherwise, additional course work designed in consultation with CMS advisor will be developed.

#### Comparative Media Technologies

**Relevant courses include, but are not limited to the following:**

CMS 350 Special Topics in Comparative Media Studies (3)  
 ENG/IMS 171 Humanities and Technology (3)  
 IMS 238 Narrative and Digital Technology (3)  
 MAC 355 Media Technology & Culture (3)

**Comparative Media Cultures**

**Relevant courses include, but are not limited to the following:**

CMS 350 Special Topics in Comparative Media Studies (3)  
 GEO 385 Media Geographies (3)  
 POL 356 Mass Media and Politics (3)  
 RUS 263 Soviet & Post-Soviet Russian Cinema (3)

**Comparative Media Histories**

**Relevant courses include, but are not limited to the following:**

CMS 350 Special Topics in Comparative Media Studies (3)  
 HST 252 Representation of History in Film and Video (3)  
 LAS 415 Cuba in Revolution: Its History, Politics, and Culture (4)  
 MAC 215 Media History (3)

**Production Requirement (9 hrs)**

**In addition to the media production experiences you develop in CMS core courses, you must also develop a minimum competency in a form of media production of your choosing. Pick one of the follow ways to satisfy this requirement.**

- A. Complete 3 courses (a minimum of 9 credits) in an individualized production track approved by your CMS advisor.
- B. Complete a minor or certificate in a production-oriented program (e.g., Computer Science, Geographic Information Science Certificate)
- C. Complete a first major with a substantial media production component (e.g., Journalism, Media Communication, IMS, Computer Science, Art, Graphic Design, English/Creative Writing or Professional Writing, Paper Engineering).

**Note:** CMS 201 and MAC 143 are prerequisites for CMS 301. CMS 301 is a prerequisite for CMS 401. As a Co-Major, students must complete a second major.

## 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 that 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):**

**NOTE:** At least one must be a writing (W) section.  
 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 Foreign Policy Analysis (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 Communism and Soviet Politics, 1917-1991 (3)  
 POL 332 Post-Soviet Russian Politics (3)  
 POL 335 Politics of East Asia (4)  
 POL 375 International Relations of East Asia (3)  
 POL 440 Havighurst Colloquium (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 (3)  
 POL 339 Nationalism, Islam and Democracy in Arab 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)

**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 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 2.00 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 2.00 is required; no courses taken credit/no-credit can be applied toward this requirement.

**CAS Writing Competency Requirement:**

Students seeking the Bachelor of Arts in Diplomacy and Global Politics meet the College of Arts and Science writing in the major requirement by completing the following courses: (1) Take at least one of the required 200-level courses (POL 221, 241, or 271) in a "Writing" or "W" section; (2) Take at least one of the required 300-level courses in a "W" section; (3) and complete one of the required Capstone courses (all of which meet the Writing requirement).

## Earth Science Bachelor of Arts

For information, contact the Department of Geology & Environmental Earth Science, 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. (7 semester hours):****Choose ONE of the following:**

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)

**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. Only 3 hours of this experience will apply towards the major.

**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 (4)  
 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 417 Forensic Isotope Geochemistry (3)  
 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 474 Paleobotany, Paleoecology, Paleoclimatology (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)

**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, 173 College Physics (3) and Physics Laboratory (1) or  
 PHY 181, 183 The Physical World (4) and Physics Laboratory (1)

Students seeking the Bachelor of Arts in Earth Science meet the College of Arts and Science writing in the major requirement by completing a course from each of the three tiers indicated: Tier 1 (GLG 204 or 211) followed by Tier 2 (GLG 301 or 357 or 408), followed by Tier 3 (GLG 497).

## East Asian Languages and Cultures Bachelor of Arts

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 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:**

ART 312 Japanese Painting and Prints (3)  
 HST 356 Modern Japanese History (3)

**China:**

ART 311 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 257 Chinese Satire (3)  
 CHI 264 Chinese Cinema and Culture in English Translation (3)  
 CHI 271 Chinese Culture Live (1 or 3)  
 CHI 402 Fourth Year Chinese (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 (3)  
 HST 434 China and the Silk Road: Patterns of China's Interactions with other Peoples before 1600 (3)  
 GEO 410B Regional Analysis of China (3)

**East Asia:**

GEO 308 Geography of East Asia (3)  
 GEO 408 Geography of the Silk Road (The Heart of Asia) (3)  
 POL 335 Politics of China and Japan (4)  
 POL 375 International Relations of East Asia (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 311, 312 Business Chinese (3, 3)  
 CHI 330 Chinese Verbal Theatre Performance (3-6; maximum 6)  
 CHI 401 Fourth Year Chinese (3)

Notes: CHI401 is required for all China Concentration majors.

These Required courses may be used in Selected or Related hours if not used as Required courses.

**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 257 Chinese Satire (3)  
 CHI 264 Chinese Cinema and Culture in English Translation (3)  
 CHI 271 Chinese Culture Live (1 or 3)  
 CHI 402 Fourth Year Chinese (3)  
 CHI 480 Independent Reading Dept Honors (3-6)

**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 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 410B Regional Analysis of China (3)

**Japan:**

ART 312 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)  
 GEO 408 Geography of the Silk Road (The Heart of Asia) (3)  
 POL 335 Politics of China and Japan (4)  
 POL 375 International Relations of East Asia (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)

### One course from:

JPN 301 Third Year Japanese (3)  
CHI 301 Third Year Chinese (3)  
CHI 311 Business Chinese I (3)  
CHI 330 Chinese Verbal Theatre Performance (3-6; maximum 6)

### 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 301 Third Year Japanese (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 257 Chinese Satire (3)  
CHI 264 Chinese Cinema and Culture in English Translation (3)  
CHI 271 Chinese Culture Live (1 or 3)  
CHI 301 Third Year Chinese (3) \*  
CHI 302 Third Year Chinese (3)  
CHI 311 Business Chinese I (3) \*  
CHI 312 Business Chinese II (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.

The courses with \* are available if not used as required courses.

### Related hours

12 semester hours from the following including at least one course each from the China and Japan groups:

#### Japan:

ART 312 Japanese Painting and Prints (3)  
HST 356 Modern Japanese History (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 410B Regional Analysis of China (3)

#### East Asia:

GEO 308 Geography of East Asia (3)  
GEO 408 Geography of the Silk Road (The Heart of Asia) (3)  
POL 335 Politics of China and Japan (4)  
POL 375 International Relations of East Asia (3)

#### Linguistics:

ATH/GER 309 or ENG/SPN 303 Introduction to Linguistics (4)

Students seeking the Bachelor of Arts in East Asian Languages and Cultures meet the College of Arts and Science writing in the major requirement by completing the following courses:

Japanese Concentration: JPN 302, 401  
Chinese Concentration: CHI 302, 401

## 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

For details on honors in economics please see the departmental website.

## 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 of advanced (at or above 300 level) in economics, including at least six hours in courses that require ECO 315 and/or 317 as prerequisite (these courses are numbered 410 or above).

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. Choose ONE of the following:

MTH 151 Calculus I (5)  
MTH 153 Calculus I (4)  
MTH 249 Calculus II (5)  
MTH 251 Calculus II (4)

#### Statistics. Choose ONE of the following:

ISA 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.

Students seeking the Bachelor of Arts in Economics meet the College of Arts and Science writing in the major requirement by completing the following courses: ECO 315, 317, and two economics courses numbered 410 or above.

Mathematics and statistics beyond the minimum requirement is recommended if you are considering graduate school in economics. See your advisor.

## 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

For details on honors in economics please see the departmental website.

## 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 advisor, ideally before the student enrolls in the course).

Eighteen additional hours of advanced (above 300 level) economics, including at least six hours in courses that require ECO 315 and/or 317 as prerequisite (these courses are numbered 410 or above)..

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)

**Choose ONE of the following:**

ISA 444 Business Forecasting (3)

ISA 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 Statistical Learning (3)

STA 483 Analysis of Forecasting Systems (3)

**Statistics - Both of these:**

STA 301 Applied Statistics (3)

STA 401 Probability (3)

## Energy Co Major

For more information, contact the Department of Institute of Environment and Sustainability, 254 Upham Hall, (513-529-5811).

Provides students with fundamental principles of energy systems, physical science, and policy to prepare them for advanced study in an energy-related field or for professional careers in industry, consulting, government, or non-profit organizations. The energy co-major is designed to give interdisciplinary breadth to complement disciplinary majors in engineering, natural sciences, architecture, business, and the social sciences. Students must complete another major at Miami University. The co-major is open to all majors, but students are recommended to take specific courses to fulfill Miami Plan Foundation requirements in physical science and quantitative reasoning.

**Program requirements:**

(34-44 Semester Hours)

**Complete a major in one of the divisions of the university.**

**Physical Science (7-12 hours)**

**One of these:**

PHY 121 Energy and Environment (3)

PHY 171 and 172 College Physics (3, 3)

PHY 181 and 182 The Physical World (4, 4)

**One of these:**

GLG 121 Environmental Geology (3)

GEO 121 Earth's Physical Environment (4)

**Math, Information Technology, Statistics (6-8 hours)**

**One of these:**

MTH 151 Calculus I (5)

CSE 243 Problem Analysis Using Computer Tools (3)

ISA 245 Database Systems and Data Warehousing (3)

**One of these:**

ECE 345 Applied Probability and Statistics for Engineers (3)

ISA 205 Business Statistics (4)

STA 261 Statistics (4)

STA 301 Applied Statistics (3)

STA 363 Introduction to Statistical Modeling (3)

STA 368 Introduction to Statistics (4)

**Political and Social Dimensions of Energy and Resources (9-10 hours)**

**This course:**

IES 211 Energy and Policy (3)

**Two of these:**

POL 241 American Political System (4)

POL 362 Public Management, Leadership, and Administrative Politics (3)

HST 397 American Environmental History (3)

ECO 406 Environmental Economics (3)

IES 450 Environmental Law (3)

**Energy and Building Systems (6-7 hours)**

**This one:**

ECE 291 Energy Systems Engineering (3)

**One of these:**

ARC 212 Principles of Environmental Systems (3)

ARC 413 Environmental Systems I (3)

CPB 204 Material and Energy Balances (3)

CPB 244 Introduction to Environmental Engineering (3)

CPB/MME 314 Engineering Thermodynamics (3)

ECE 205 Electric Circuit Analysis I (4)

ECE 491 Power Systems Engineering (3)

MME 451 Sustainability in Design (3)

**Climate and Air Pollution (3 hours)**

**One of these:**

GEO 421 Climatology (3)

GLG 335 Ice Age Earth (3)

GLG 401 Global Climate Change (3)

GLG 436 Paleoclimatology (3)

CPB 442 Air Pollution Control (3)

**Practicum and Synthesis (3 hours)**

**One of these: (speakers from the energy industry, building & transportation, and regulatory agencies)**

CPB 490 Special Topics in Paper and Chemical Engineering (1-3; maximum 5)

IES 440 Contemporary Topics in Environmental Sciences (1-3; maximum 3)

MME 410 Undergraduate Research Seminar (1)

**One of these: (interdisciplinary team projects)**

CSE/ECE/MME 448/449 Senior Design Project (2)

Note: engineering students are required to register for additional 1-2 hrs of CPB 471 or CSE/ECE/MME 448/449.

## 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 281 Contemporary Physics I: Foundations (3)

PHY 282 Contemporary Physics II: Frontiers (3)

PHY 292 Electronic Instrumentation (2)

PHY 293 Contemporary Physics Laboratory (2)

PHY 294 Laboratory in Electronic Instrumentation (2)

PHY 483 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 College of Engineering and Computing 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**
- CEC 102 Problem Solving and Design (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 141, 144 College Chemistry/College Chemistry Lab (3, 2)
- MME 223 Engineering Materials (3)
- MME/CPB 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)**

- BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)
- CHM 141, 144 College Chemistry/College Chemistry Lab (3, 2)
- CHM 142,145 College Chemistry/College Chemistry Lab (3, 2)
- 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 Molecular and Cellular Biophysics (4) **or**
- PHY 422 Physics for Medicine and Biology (4)
- Recommended additional elective:* BIO 305 Human 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 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 GPA 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 Advisor, Chief Departmental Advisor, or your academic advisor 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, 144, 142, and 145) and differential equations (MTH 245 or 347) before transferring to the engineering school. 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 advisor 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).

The English department offers three majors: creative writing, literature, and professional writing. These concentrations lead to

an A.B. The department also participates in a major in linguistics; see Linguistics later in this chapter.

### Program Requirements: English/Creative Writing (39 semester hours)

**Introduction to Creative Writing. This one:**

ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

**Introduction to Literary Studies. This one:\***

ENG 298 Introduction to Literary and Cultural Studies (3)

\* Completed fall semester of sophomore year at Miami or fall semester after declaring the literature major, whichever is later.

**Creative Writing courses (choose four of the following):**

- ENG 213 Writing for Media (3)
- 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 either 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.

**Senior Capstone (choose one of the following):**

- ENG 460 Issues in Creative Writing (3)
- ENG 495 Capstone in Literature (3)

**NOTE:** No more than one 100-level course may be used to fulfill literature requirements. No more than one course can focus on Shakespeare. ENG 440, 450 and 490 may count when the topic/time period is appropriate.

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 of Earlier Periods (choose two of the following):**

- ENG 131 Life and Thought in English Literature, to 1660 (3)
- ENG 132 Life and Thought in English Literature, 1660 to 1901 (3)
- ENG 134 Introduction to Shakespeare (3)
- ENG 141 Life and Thought in American Literature, to 1865 (3)
- ENG 221 Shakespeare and Film (3)
- ENG 251 Life and Thought in European Literature to 1800 (3)
- ENG 327 Medieval Literature (3)
- ENG 328 The Renaissance: Non-Dramatic Literature (3)
- ENG 331 17th Century Poetry and Prose (3)
- ENG 332 Early British Women Writers (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 339 Writers of the Early Romantic Period (3)
- ENG 342 Writers of the Later Romantic Period (3)
- ENG 349 Colonial and Early National American Literature, to 1810 (3)
- ENG 352 American Literature, 1810-1865 (3)
- ENG 372 Shakespeare's Principal Plays: The Early Period (3)
- ENG 373 Shakespeare's Principal Plays: The Later Period (3)
- ENG 374 English Renaissance Drama (3)

**Literature of Later Periods (choose two of the following):**

**NOTE:** No more than one 100-level course may be used to fulfill literature requirements. ENG 440, 450 and 490 may count when the topic/time period is appropriate.

- ENG 133 Life and Thought in English Literature, 1901-Present (3)
- ENG 142 Life and Thought in American Literature, 1865-1945 (3)
- ENG 143 Life and Thought in American Literature, 1945-Present (3)
- 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 252 Life and Thought in European Literature (3)
- ENG 254 Latino/a Literature and the Americas (3)
- ENG 293 Contemporary American Fiction (3)
- ENG 337 African American Writing, 1878-1945 (3)
- ENG 343 English Literature of the Early Victorian Period, 1830-1860 (3)
- ENG 344 Literature of the Later Victorian Period (3)
- ENG 345 British Modernism (3)
- ENG 347 Postwar/Postcolonial British Literature (3)
- ENG 348 Ethnic American Literatures (3)
- ENG 353 American Literature, 1865-1914 (3)
- ENG 354 American Literature, 1914-1945 (3)
- ENG 355 American Literature, 1945- Present (3)

**Ethnic, minority, or women's literature (choose one of the following):**

**NOTE:** This requirement may be satisfied by a course taken to fulfill the literature (earlier or later periods) requirements above.

- ENG 230J Jewish-American Literature (3)
- ENG 232 American Women Writers (3)
- ENG 233 British Women Writers (3)
- ENG 237 GLBTQ 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)

**Genre (choose one of the following):**

ENG 231 The Short Story (3)  
 ENG 259 The Modern World Novel (3)  
 ENG 261 Modern Drama (3)  
 ENG 281 The English Novel (3)  
 ENG 282 American Fiction (3)  
 ENG 283 Modern Poetry (3)  
 ENG 311 Contemporary Fiction (3)  
 ENG 312 Contemporary Poetry (3)  
 ENG 450 Studies in Genre (3)  
 ENG 468 Gender and Genre (3)

Students seeking the Bachelor of Arts in English Creative Writing meet the College of Arts and Science writing in the major requirement by completing the following course: ENG 226 and writing workshops at the 300- and 400-levels (either ENG 320 and ENG 420 for fiction, or ENG 330 and ENG 430 for poetry).

**Program Requirements: English/Literature**  
 (36 semester hours)

**Prerequisite introductory course. This one:\***

ENG 298 Introduction to Literary and Cultural Studies (3)

\* Completed fall semester of sophomore year at Miami or fall semester after declaring the literature major, whichever is later.

**Seven 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 169 Disability Identity (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 GLBTQ 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 259 The Modern World Novel (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 332 Early British Women Writers (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 347 Postwar/Postcolonial British Literature (3)  
 ENG 348 Ethnic American Literatures (3)  
 ENG 349 Colonial and Early National American Literature, to 1810 (3)  
 ENG 350B Women in Film (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 374 English Renaissance Drama (3)  
 ENG 390 Studies in American Regionalism (3)

**And at least two of the following:**

ENG 432 Feminism and the Diaspora: U.S. Women of Color (3)  
 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)

**Literary, cultural, or other theory (choose one of the following):**

ENG 329 Disability Poetics and Narrative Theory (3)  
 ENG 351 Cultural Politics of Gender and Sexuality in Asian/America (3)  
 ENG 368 Feminist Literary Theory (3)  
 ENG 370 Literary and Cultural Theory (3)  
 ENG 435 Queer Theory (3)  
 ENG 437 Black Feminist Theory (3)  
 ENG 470 Topics in Literary Theory (3)

**Senior Capstone. One of these:**

ENG 460 Issues in Creative Writing (3)  
 ENG 495 Capstone in Literature (3)

**Literature Distributional 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 of Earlier Periods. Two of these (both courses cannot focus on Shakespeare):**

ENG 131 Life and Thought in English Literature, to 1660 (3)  
 ENG 132 Life and Thought in English Literature 1660-1901 (3)  
 ENG 134 Introduction to Shakespeare (3)  
 ENG 141 Life and Thought in American Literature, to 1865 (3)  
 ENG 221 Shakespeare and Film (3)  
 ENG 251 Life and Thought in European Literature to 1800 (3)  
 ENG 327 Medieval Literature (3)  
 ENG 328 The Renaissance: Non-Dramatic Literature (3)  
 ENG 331 17th Century Poetry and Prose (3)  
 ENG 332 Early British Women Writers (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 339 Writers of the Early Romantic Period (3)  
 ENG 342 Writers of the Later Romantic Period (3)  
 ENG 349 Colonial and Early National American Literature, to 1810 (3)  
 ENG 352 American Literature, 1810-1865 (3)  
 ENG 372 Shakespeare's Principal Plays: The Early Period (3)  
 ENG 373 Shakespeare's Principal Plays: The Later Period (3)  
 ENG 374 English Renaissance Drama (3)

**Literature of Later Periods (two of these):**

ENG 133 Life and Thought in English Literature, 1901-Present (3)  
 ENG 142 Life and Thought in American Literature, 1865-1945 (3)  
 ENG 230J Jewish American Literature from 1945 (3)  
 ENG 232 American Women Writers (3)  
 ENG 233 British Women Writers (3)  
 ENG 246 Native American Literature (3)  
 ENG 247 Appalachian Literature (3)  
 ENG 248 Asian American Literature (3)  
 ENG 252 Life and Thought in European Literature, 1800-Present (3)  
 ENG 254 Latino/a Literature and the Americas (3)  
 ENG 293 Contemporary American Fiction (3)  
 ENG 337 African American Writing, 1878-1945 (3)  
 ENG 338 African American Writing, 1946-Present (3)  
 ENG 343 English Literature of the Early Victorian Period, 1830-1860 (3)  
 ENG 344 Literature of the Later Victorian Period (3)  
 ENG 345 British Modernism (3)  
 ENG 347 Postwar/Postcolonial British Literature (3)  
 ENG 348 Ethnic American Literatures (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)

**Ethnic, minority, or women's literature (one of these):**

ENG 169 Disability Identity (3)  
 ENG 230J Jewish-American Literature (3)  
 ENG 232 American Women Writers (3)



ENG 233 British Women Writers (3)  
 ENG 237 GLBTQ Literature (3)  
 ENG 246 Native American Literature (3)  
 ENG 248 Asian American Literature (3)  
 ENG 254 Latino/a Literature and the Americas (3)  
 ENG 332 Early British Women Writers (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 350B Colonial and Postcolonial Literature (3)  
 ENG 468 Gender and 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 104, 105, 106, 108, 109, 111, 112. The purpose of this elective is to allow students to take a course in another English program (e.g. Creative Writing, Linguistics, or Professional Writing), if desired.

Students seeking the Bachelor of Arts in English Literature meet the College of Arts and Science writing in the major requirement by completing the following course: ENG 298 and 495 or 460 (or another 400-level capstone).

### Program Requirements: English/Professional Writing (42 semester hours)

The Bachelor of Arts with a major in Professional Writing is designed for students who wish to engage with the theory and practice of writing for various purposes and in different media. Students may choose one of four tracks: (1) Digital and Technical Communication, (2) Editing, (3) Public Writing and Rhetoric, and (4) Self-Design. The major requires 42 hours: 5 core courses (15 hours); 5 track courses (one required) (15 hours); and four elective courses in any 200-level or above course in the English Department (12 hours).

#### Core Courses

##### All of these:

ENG 223 Strategies for Writers (3)  
 ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)  
 JRN 201 Reporting and News Writing I (3)  
 ENG/IMS 411/511 Visual Rhetoric (3)

##### ENG Capstone (choose one):

ENG 415 Capstone in Professional Writing (3) or  
 ENG 495R Capstone in Rhetoric and Writing (3)

#### Tracks - Choose ONE of four possible tracks:

##### Editing:

##### One required course, select from:

ENG 412/512 Print and Digital Editing (3) or  
 JRN 316 Editing and Design (3)

##### Four elective courses from the following list:

ENG/IMS 171 Humanities and Technology (3)  
 ENG 172 Rhetoric, Persuasion, and Culture (3)  
 ENG 202 Varieties of English: Dialect Diversity and Language Change (3)  
 ENG 222 The Rhetoric of Information and Data Visualization (3)  
 ENG 225 Advanced Composition (3)  
 ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)  
 ENG 302 Structure of Modern English (4)  
 ENG 315 Business Writing (3)  
 ENG 321 The Literary Marketplace (3)  
 ENG 323 Creative Non-Fiction (3)  
 ENG 340 Internship  
 ENG 359 Writing Center Consulting (3)  
 ENG 413/513 Grant and Proposal Writing (3)  
 ENG/IMS 416/516 Writing for Global Audiences (3)  
 JRN 350 Specialized Journalism (3)

##### Public Writing and Rhetoric:

##### One required course; select from:

ENG 310 Special Topics in Rhetoric and Persuasion (3) or  
 ENG 413/513 Grant and Proposal Writing (3)

##### Four elective courses; select from the following list:

AAA/AMS/BWS/LAS/WGS 211 Writing with a Purpose (3)  
 AAA 410/ENG 409 Topics in Asian/Asian American Studies (3)  
 ENG 172 Rhetoric, Persuasion, and Culture (3)  
 ENG 201 Special Topics in Language Awareness (3)  
 ENG 222 The Rhetoric of Information and Data Visualization (3)  
 ENG 225 Advanced Composition (3)  
 ENG 245/COM/DST 247 Rhetoric of Disability Rights (3)  
 ENG 315 Business Writing (3)

ENG 340 Internship  
 ENG 359 Writing Center Consulting (3)  
 ENG/IMS 407/507 Interactive Business Communication (3)  
 ENG 412/512 Print and Digital Editing (3)  
 JRN 412 Public Affairs Reporting (3)  
 JRN 318 Advanced Storytelling in Journalism (3)  
 MAC 212 Media Representation (3)  
 MAC 301/JRN 301 Journalism Law and Ethics (3)

#### Digital and Technical Communication:

##### One required course; select:

ENG 313 Technical Writing (3)

##### Four elective courses; select from the following list:

COM/ENG/IMS 324 Ethics and Digital Media (3)  
 ENG/IMS 171 Humanities and Technology (3)  
 ENG 172 Rhetoric, Persuasion, and Culture (3)  
 ENG 222 The Rhetoric of Information and Data Visualization (3)  
 ENG/IMS 238 Narrative and Digital Technology (3)  
 ENG 310 Special Topics in Rhetoric and Persuasion (3)  
 ENG 340 Internship (1-20)  
 ENG/IMS 407/507 Interactive Business Communication (3)  
 ENG 412/512 Editing for Technical and Scientific Communicators (3)  
 ENG 413/513 Grant and Proposal Writing (3)  
 ENG 414/514 Usability and User Experience (3)  
 IMS 222 Web and Interaction Design (3)  
 IMS 413 Usability and Digital Media Design (4)  
 IMS 418 Social Media Marketing and Online Community Management (3)  
 IMS 422 Advanced Web Design (3)  
 IMS 440 Interactive Media Studies Practicum (4)  
 JRN 303 Online Journalism (3)  
 MAC 211 Introduction to Video Production (4)

#### Self-Design:

##### Any one required course and four elective courses selected from the three tracks above.

In consultation with your advisor and with administrative approval, you may design your own track.

#### Open Electives:

Four open electives from any 200-level or above course in the English Department. This may include 200-level and above ENG courses from the tracks above.

Students seeking the Bachelor of Arts in Professional Writing meet the College of Arts and Science writing in the major requirement by completing the following course: ENG 223 and either 415 or 495.

## Environmental Earth Science Bachelor of Arts

For information, contact the Department of Geology & Environmental Earth Science, 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. (17 semester hours)

##### Choose ONE of the following:

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)

##### Choose ONE of the following:

GEO 271 Human Dimensions of Natural Resource Conservation (3)  
 IES 274 Environment and Sustainability (3)  
 IES 275 Principles of Environmental Science (3)

##### Choose ONE of the following:

GLG 301 Sedimentology and Stratigraphy (4)  
 GLG 354 Geomorphology (3)

##### Choose ONE of the following:

GLG 307 Water and Society (3)  
 GLG 408 Introduction to Hydrogeology (4)  
 GLG 491 Geochemistry of Natural Waters (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.

**Electives. (Minimum 19 semester hours):**

**At least 3 courses must be at the 400 level. Only one course may be outside of the Department of Geology and Environmental Earth Science. Course used in the Core Requirements may not be used in the Electives.**

GLG 201 Mineralogy (4)  
 GLG 204 Survival on an Evolving Planet (4)  
 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)  
 GLG 401 Global Climate Change (4)  
 GLG 402 Geomicrobiology (3)  
 GLG 408 Introduction to Hydrogeology (4)  
 GLG 417 Forensic Isotope Geochemistry (3)  
 GLG 428 Groundwater Flow Modeling (4)  
 GLG 435 Soils and Paleosols (3)  
 GLG 436 Paleoclimatology (3)  
 GLG 474 Paleobotany, Paleocology, Paleoclimatology (3)  
 GLG 482 Contaminant Hydrogeology (4)  
 GLG 491 Geochemistry of Natural Waters (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)

**Related Hours (minimum of 12 hours required)****Choose one of the following:**

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 the following:**

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 the following:**

PHY 171, 173 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 the following:**

BIO 113 Animal Diversity (4)  
 BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
 BIO 121 Environmental Biology (3)  
 BIO 131 Plants, Humanity, and Environment (3)  
 BIO 176 Ecology of North America (3)  
 BIO 191 Plant Biology (4)  
 BIO 209 Fundamentals of Ecology (3)

Students seeking the Bachelor of Arts in Environmental Earth Science meet the College of Arts and Science writing in the major requirement by completing a course from each of the three tiers indicated: Tier 1 (GLG 204 or 211) followed by Tier 2 (GLG 301 or 357 or 408), followed by Tier 3 (GLG 497).

**Program Requirements:**

(33-39 semester hours)

**Complete a major in one of the divisions of the university.****Biological Science - one of these:**

BIO 113 Animal Diversity (4) (offered at Hamilton/Middletown only)  
 BIO/MBI 115 Biological Concepts (4)  
 BIO 191 Plant Biology (4)

**Physical Science (7-9 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)  
 CPB 244 Introduction to Environmental Engineering (3)  
 GLG 211 Chemistry of Earth Systems (3)

**Group B**

GEO 121 Earth's Physical Environments (4)  
 GLG 111, 115L The Dynamic Earth/Geology Lab (3, 1)  
 GLG 121, 115L Environmental Geology/Geology Lab (3, 1)  
 GLG 141, 115L Geology of U.S. National Parks/Geology Lab (3, 1)  
 GLG 115L Geology Lab (required with any GLG enrollment) (1)

**Note:** PHY 171/172 or 181/182 strongly recommended.

**Statistics (3-4 semester hours)**

*Choose ONE of the following:*

STA 261 Statistics (4)  
 STA 301 Applied Statistics (3)  
 STA 368 Introduction to Statistics (4)

**Social Science (6-7 semester hours):**

ECO 201 Microeconomics (3)

**Choose one of the following:**

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:*

IES 275 Principles of Environmental Science (3), and

**Choose two of the following (both of which must be outside department of primary major):**

BIO 333, 401, 408, 425, 431, 432, 453, 462, 463, 467  
 CHM 363/364, 454, 463, 491  
 CPB 405, 441, 442  
 ENG/IES/JRN 429  
 GEO 421, 425, 428, 441, 444  
 GLG 307, 335, 354, 401, 402, 408, 428, 430, 432, 435, 474, 482, 496  
 MBI 475  
 PHY 421, 437, 441  
 STA 333, 363, 401, 462, 475

**Practicum and Synthesis (3-5 semester hours)**

*Choose ONE of the following:*

BIO 351 Environmental Education (4)  
 GEO 436 Women, Gender and the Environment (3)  
 IES 431 Principles and Applications of Environmental Science (3)  
 Field-Based Workshops (See department for available workshops)  
 Honors Thesis (3)

Independent Studies 377 (0-5) or Internship 340 (3)\*

\* must be approved by IES Director or Co-Major advisor

## Environmental Science Co Major

For more information, contact the Department of Institute for the Environment and Sustainability, 254 Upham Hall (513-529-5811).

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.

## 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College 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). No more than three hours in translation count toward this major. FRE 361 Pronunciation does **not** count toward this major.

Students seeking the Bachelor of Arts in French meet the College of Arts and Science writing in the major requirement by completing the following course/s: FRE 301; six hours from FRE 302, 303, or 310, in no particular sequence; and 410.

**Geography Bachelor of Arts**

For information, contact the Department of Geography, 216 Shideler Hall (513-529-5010).

Geography majors explore the interactions of people, places, and environments, integrating social and natural sciences to understand global issues and address them locally. Geographers synthesize spatial information using qualitative and quantitative techniques, including geospatial mapping technologies. Students gain critical thinking, research, and communication skills through both independent research and collaborative learning. Majors are trained for diverse opportunities related to urbanization, global development, and the environment.

**Program Requirements**

(36-39 semester hours)

**Foundation human (3 hours)**

GEO 101 Global Forces, Local Diversity (3) **or**  
GEO 111 World Regional Geography (3)

**Foundation physical (3-4 hours)**

GEO 121 Earth's Physical Environment (4) **or**  
GEO 122 Geographic Perspectives on the Environment (3)

**Connecting Geographic Patterns and Processes (15-16 hours)****Integrating Human and Physical Processes (3 hours):**

GEO 211 Global Change (3)

**People and Places (3 hours), one of these:**

GEO 201 Geography of Urban Diversity (3) **or**  
GEO 205 Population and Migration (3) **or**  
GEO 276 Geography of the Global Economy (3)

**Environmental Principles and Processes (3 hours), one of these:**

GEO 221 Regional Physical Environments (3) **or**  
GEO 271 Humans and Natural Resources (3) **or**  
IES 274 Environment and Sustainability (3) **or**  
IES 275 Principles of Environmental Science (3)

**Geovisualization and Mapping (3 hours), one of these:**

GEO 241 Map Interpretation (3) **or**  
GEO 242 Mapping a Changing World (3)

**Regions (3-4 hours), one of these:**

GEO 208 The Rise of Industrialism in East Asia (3) **or**  
GEO 301 Geography of Sub-Saharan Africa (4) **or**  
GEO 307 Geography of Central and Eastern Europe, and Russia (3) **or**  
GEO 308 Geography of East Asia (3) **or**  
GEO 311 Geography of Europe (3) **or**  
GEO 406 Indigenous Peoples and Their Sacred Lands (3) **or**  
GEO 408 Geography of the Silk Road (3)

**Specializations:**

Students must complete 12 credit hours in GEO courses at the 300-level or above, of which at least 6 hours must be completed at the 400-level or above. Students are encouraged to consult with their advisor and review departmental publications for suggested specialization courses that align with each student's interests and post-graduation plans.

**Capstone Experience (3-4 hours), one of these:**

GEO 491 Senior Seminar (4)  
GEO 493 Urban Field Experience (3)

**Note:** Geography students seeking the Bachelor of Arts in Geography meet the College of Arts and Science writing in the major requirement by completing the following courses: GEO 211 and 491 or 493.

**Geology Bachelor of Arts, Bachelor of Science**

For information, contact the Department of Geology & Environmental Earth Science, 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. Both Geology undergraduate degree options require a core of geology classes and cognate courses including a capstone field mapping experience.

The Bachelor of Arts in Geology prepares students for further graduate work in the geosciences and related disciplines, as well as careers in the environmental industry, petroleum, mining, government, or education.

The Bachelor of Science in Geology 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College 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 (4)  
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 417 Forensic Isotope Geochemistry (3)  
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 474 Paleobotany, Paleoecology, Paleoclimatology (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 261 Statistics (4) **or**  
STA 301 Applied Statistics (3)  
PHY 171 College Physics (3) **and** PHY 173 Physics Laboratory (1) **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. See complete list above.

**Research Project**

GLG 377, 477 or 498 or equivalent research project (3)  
Public presentation of research project

**Related Hours (21-30 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) (unless already taken) and one of the following:

MTH 251 Calculus II (4) **or**

STA 261 Statistics (4) **or**

STA 301 Applied Statistics (3)

PHY 172 College Physics (3) and PHY 174 Physics Laboratory (1) **or**

PHY 182 The Physical World (4) and PHY 184 Physics Laboratory (1) **or**

GLG 261 Geohazards and the Solid Earth (3)

Students seeking the Bachelor of Arts in Geology meet the College of Arts and Science writing in the major requirement by completing a course from each of the three tiers indicated: Tier 1 (GLG 204 or 211) followed by Tier 2 (GLG 301 or 357 or 408), followed by Tier 3 (GLG 497).

**German Bachelor of Arts**

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 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.

Six 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

**Program Requirements**

(27 semester hours plus 9 hours of related courses numbered above GER 202)

Select courses from these areas:

**Language skills.** This one:

GER 301 German Languages Through the Media (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) (*taught in English translation*)

**Culture.** Choose at least THREE semester hours from the following:

GER 321 Cultural Topics in German-Speaking Europe (3) **or**

GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the USA (3)

**Advanced study (Global Miami Plan Capstone):**

GER 471 Linguistic Perspectives in Contemporary German (3)

One additional course, which must be at the 400 level.

Remaining course hours from those taught in German at the 300 or 400 level.

Two three-hour German courses at any level taught in translation, (except FRE/GER 212; GER/ATH 309/CLS/ENG/SPN 303; GER/ART/ENG/GEO/HBW/HST/POL/PSY/REL 179; GER/ENG/FRE 356) may be used toward the major.

**Related Hours (9 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 advisor.

Students seeking the Bachelor of Arts in German meet the College of Arts and Science writing in the major requirement by completing the following courses: GER 301 and 471.

**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.** Choose ONE of the following:

GTY 260 Global Aging (3)

GTY/SOC/WGS 463 Gender and Aging (3)

GTY/BWS 472 Race, Ethnicity, and Aging (3)

**Health.** Choose ONE of the following:

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.** Choose ONE of the following:

GTY/FSW 466 Later Life Families (3)

GTY 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 Medical Ethics (4)

**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.

Students seeking the Bachelor of Arts in Gerontology meet the College of Arts and Science writing in the major requirement by completing GTY 318 and 440G.

**History Bachelor of Arts**

For information, contact the Department of History, 200 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College of Education, Health and Society, 202 McGuffey Hall (513-529-6317).

## Program Requirements

(36 semester hours)

HST 206 Introduction to Historical Inquiry (3)

You must take HST 206 within one semester of becoming a History major. You must earn a C or better in HST 206 in order to graduate as a History major.

At least one History course at the 100 level (3)

At least three History courses at the 200 level (9) (excludes HST 206)

At least six History courses at the 300 level or above (18). At least one of these (3) must be at the 400 level (excluding HST 400 and independent study work under-taken at the 400 level)

HST 400 Senior Capstone (3)

If you scored 3 or above on an Advanced Placement examination, you may apply 3 credit hours to the major (100-level course). University credit will be awarded as described below.

U.S. History - HST 111 and 112 (6 credits)

European History - HST 122 (3 credits)

World History - HST 197, 198 (6 credits)

A single course may fulfill both of the following categories (Geographical Diversity and Pre-modern Period).

### Geographical Diversity Requirement (6 hours):

One 100 or 200 level course (3) must be on the history of Africa, the Middle East, Asia, Latin America, or some combination of those regions. One 300 or 400 level course (3) must be on the history of Africa, the Middle East, Asia, Latin America, or some combination of those regions.

### Pre-modern Period Requirement (6 hours):

One 100 or 200 level course must be on the pre-modern period. One 300 or 400 level course must be on the pre-modern period. At least one of the two courses must be a pre-1500 course; both must be pre-1800.

Students seeking the Bachelor of Arts in History meet the College of Arts and Science writing in the major requirement by completing the following courses: HST 206 and 400.

### 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 spring semester of the junior year. Counts toward upper-level courses for the History major.

HST 400 Honors Senior Capstone (3)

Ordinarily taken in the fall 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 spring semester of the senior year with the senior thesis advisor. 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 an academic home for students with multiple interests to develop their own plan of study by integrating a set of core classes with courses in almost any area of study. Courses explore diverse subjects but share a strong interdisciplinary theme. By emphasizing the importance of studying complex issues from multiple perspectives, these courses equip students with skills in critical thinking, problem solving, and objective analysis. The individualized portion of the major is designed by students in close consultation with faculty and staff advisors, and draws from courses across the university. The degree

culminates in a student-designed project that positions students for entry into graduate school or the workplace.

## 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: (9 hours)

WST 301 Interdisciplinary Problems and Questions (3)

WST 321 Developing Interdisciplinary Projects: Exploring Ways of Knowing (3) or

WST 322 Developing Interdisciplinary Projects: Art and Politics of Representation (3)

WST 341 Interdisciplinary Synthesis and Action (3)

### Individualized coursework component: (24 hours minimum)

Building upon the individualized plan of study completed in WST 251, students 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. Plans of study, subject to approval by a faculty advisor, may include study abroad and/or credit-bearing internships as appropriate. The individualized component forms an important knowledge base for constructing the senior project.

### Senior Project: (7 hours)

WST 421 Senior Project Proposal Workshop (3)

WST 444/445 Senior Workshop and Project (3, 2)

## Interactive Media Studies Co Major

For more information, contact the Department of Interactive Media Studies, 203 Laws Hall, (513-529-1637).

This co-major in Interactive Media Studies is an interdisciplinary major that is designed to complement the traditional disciplinary-focused major. A first major is required to subsequently earn this Co-major. 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.

Following four foundation courses, students must choose three courses from two foundation tracks (making and analyzing). During their third and fourth years, they participate in an advanced track that is either pre-approved or self-designed. Third/fourth year requirements also include IMS 452 Senior Degree Project and IMS 440 Interactive Media Studies Practicum.

An application/interview is required for admittance. There is a minimum 2.50 GPA requirement. A limited number of students are admitted each year.

### Co-major in Interactive Media Studies

(37 semester hours)

Complete a major in one of the divisions of the university.

#### Second Year: Foundation (12 hours):

ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)

IMS 201 Information Studies in the Digital Age (3) (MPT)

IMS 254 Design Principles Applied (3)

IMS 257 Web Interaction Programming (3)

#### Second and Third Year: Foundation Tracks (9 hours)

Take 2 courses from one list, 1 course from the other list

#### Making:

ART/IMS 259 Art and Digital Tools I (3)

IMS 212 The Design of Play (3)

IMS 222 Web and Interaction Design (3)

IMS 253 Building Interactive Objects (3)

IMS 356 Interactive Animation (3)

IMS 461 Advanced 3D Visualization and Simulation (3)

### Analyzing:

ENG/IMS 238 Narrative and Digital Technology (3)  
 IMS 211 The Analysis of Play (3)  
 IMS 261 Information and Data Visualization (3)  
 IMS 413 Usability and Digital Media Design (4)  
 IMS 414 Web and Social Media Analytics (3)  
 IMS 419 Digital Branding (3)  
 MAC 143 Introduction to Media (3)

### Third and Fourth Year: Advanced Track (9 hours)

If a track is pre-approved (below) the student can begin the track without advisor approval. If a student would like to design their own track from the list of track courses (and/or other courses that might be available throughout the university) they are required to meet with their assigned advisor and get "sign-off" on the track no later than immediately following completion of the first course in the track. All/any modifications to pre-approved tracks and/or self-designed tracks need to be approved by the Chief Departmental Advisor of AIMS. IMS 390 Special Topics and IMS 490/590 Advanced Topics can be used with CDA approval. (Courses from the Making and Analyzing foundation tracks can also be used in the advanced track, but they must be in addition to those hours - no double-dipping).

### Pre-Approved Tracks (choose three from the list):

#### Game Design:

IMS 212 The Design of Play (3)  
 IMS 319 Foundations in 3-D Design (3)  
 IMS 445 Game Design (3)  
 IMS 487 Game Prototyping, Pipeline and Production (3)

#### Game Development:

IMS 259 Art and Digital Tools I (3)  
 CSE 251 Introduction to Game Programming (3)  
 IMS 445 Game Design (3)  
 IMS 487 Game Prototyping, Pipeline and Production (3)

#### Game Studies:

IMS 211 The Analysis of Play (3)  
 IMS/EDP 225 Games and Learning (3)  
 IMS/ENG 238 Narrative and Digital Technology (3)  
 IMS 487 Game Prototyping, Pipeline and Production (3)

#### Interactive Business:

IMS 407 Interactive Business Communication (3)  
 IMS 414 Web and Social Media Analytics (3)  
 IMS 418 Social Media Marketing and Online Community Management (3)  
 IMS/MKT 419 Digital Branding (3)

#### Art and Interaction:

IMS/ART 259 Art and Digital Tools I (3)  
 IMS 319 Foundations in 3-D Design (3)  
 IMS/MUS 304 Electronic Music (3) or  
 IMS/MUS 221 Music Education Technology (1)  
 ARC 404Y Mind And Medium (3)

#### Web Development and Design:

IMS 222 Web and Interaction Design (3)  
 IMS 356 Interactive Animation (3)  
 IMS 413 Usability and Digital Media Design (4)  
 IMS 422 Advanced Web Design (3)

#### Animation:

IMS/ART 259 Art and Digital Tools I (3)  
 IMS 319 Foundations in 3-D Design (3)  
 IMS 356 Interactive Animation (3)

#### Comparative Media Studies:

MAC 212 Media, Representation, and Society (3) or  
 MAC 355 Media Technology & Culture (3)  
 CMS 201 Introduction to Comparative Media (4)  
 CMS 301 Comparative Approaches to Media Studies (3)  
 MAC 211 Introduction to Video Production (4)

#### Visualization:

IMS 259 Art and Digital Tools I (3)  
 IMS 261 Information and Data Visualization (3)  
 IMS 461 Advanced 3D Visualization and Simulation (3)  
 IMS/JRN/STA 404 Advanced Data Visualization (3)

### Third/Fourth Year: Upper-level Requirements (7 hours)

IMS 452 Senior Degree Project (3)  
 IMS 440 Interactive Media Studies Practicum (4)

#### Specifically Suggested Electives:

ART/IMS 340 Internship (2)  
 ART 256 Design, Perception & Audience (3)  
 CCA 111 Innovation, Creativity and Design Thinking (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

##### Choose ONE of the following:

ITS 302 Problems of Non-Western Societies (3)  
 ITS 365 Topics in International Studies (3)

##### Choose THREE of the following:

GEO 378 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* | • Africa                                 |
| • International Development      | • South and East Asia                    |
| • Global Cultural Relations      | • Latin America                          |
| • The Global Environment         | • Middle East                            |
| • Women in the World             | • Russia Eastern Europe and Central Asia |
|                                  | • Western Europe                         |

\* Take 12 hours from at least two different disciplines

Students seeking the Bachelor of Arts in International Studies meet the College of Arts and Science writing in the major requirement by completing the following course/s: either ITS 302 or 365, and 402.

## 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 taken 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 Courses

(6 semester hours)

ITL 221 Italy, Matrix of Civilization (3)  
ITL 420 Senior Writing Workshop (3)

### Core Courses

(18-24 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 eight three credit courses, for a maximum of 24 semester hours:

ART 314 The Renaissance in Italy (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)

\*\* offered at the Miami University Summer Language Institute in Italy

### Supplementary Courses

(up to 6 semester hours)

Choose remaining hours, if any, from the following:

ARC 405E Renaissance Architecture (3)  
ART 316 Baroque Art in Europe (3)  
ART 381 Greek and Roman Architecture (3)  
ART 382 Greek and Roman Sculpture (3)  
ART 383 Greek and Roman Painting (3)  
CLS 215 Roman Historians (3)  
CLS 332 Classical Mythology and the Arts (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

Students seeking the Bachelor of Arts in Italian Studies meet the College of Arts and Science writing in the major requirement by completing the following course/s: ITL 221 and 420.

## Journalism Bachelor of Arts

For information, contact the director of the Journalism Program, 201 Williams 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. In addition, all journalism students must choose and complete a second major that cannot be in a media-related field unless the student successfully petitions the director of the Journalism Program to complete a second media-related major. Students also may submit a petition to substitute two minors for a second major, provided one minor is outside the College of Arts and Science.

### Program Requirements

(40 semester hours)

#### Core Requirements:

JRN 101 Introduction to Journalism (3)  
IMS 201 Information Studies in the Digital Age (3)  
JRN 201 News Reporting and Writing (3)\*  
(\*Prerequisite for all JRN 202 and all 300- and 400-level JRN writing/editing courses)  
JRN 202 News Reporting and Writing II (3)  
JRN 318 Advanced Storytelling in Journalism (3)  
JRN 412 Public Affairs Reporting (3)  
MAC 143 Introduction to Media (3)  
MAC 211 Introduction to Video Production (4)

#### Analytical Courses

Any TWO of the following:

JRN 301 Journalism Law and Ethics (3)  
JRN 333 International Journalism (3)  
JRN 427 Inside Washington Semester Experience (4)  
MAC 212 Media, Representation, and Society (3)  
MAC 355 Media Technology & Culture (3)  
MAC 446 Media Globalization (3)  
POL 356 Mass Media and Politics (3)

#### Creative Courses

Any TWO of the following:

JRN 303 Online Journalism (3)  
JRN/MAC 313 Advanced Electronic Journalism: Audio (3)  
JRN/MAC 314 Digital Video Reporting (3)  
JRN 316 Introduction to News Presentation (3)  
JRN 350 Specialized Journalism (3)\*  
\*(This course can be repeated).

#### Capstone

Choose ONE of the following:

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

Students seeking the Bachelor of Arts in Journalism meet the College of Arts and Science writing in the major requirement by completing the following course/s: JRN 201, 318 and 412.

#### Second Major

All journalism majors are required to complete a second major that preferably is not in a media-related field. Students may also petition to substitute two minors for a second major, providing one minor is inside the College of Arts and Science.

## Latin American, Latino/a & Caribbean Studies Bachelor of Arts

For information, contact the LAS Program, 120 MacMillan Hall (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 three required categories. Additional credits here are counted toward the core courses requirement.

### Introduction to Latin America

LAS 208/ATH 206 Introduction to Latin America (3)  
LAS/HST 217 Modern Latin American History (3)  
SPN 362 Spanish American Cultural History II (3)

### Interdisciplinary Writing

LAS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)

### Culmination of Latin American Studies

LAS 410 Current Latin American Issues (3)  
LAS/GEO/GLG/IES 412 Tropical Ecosystems of Costa Rica (5)  
LAS/BWS/FST 415 Cuba in Revolution (4)  
LAS/IES 416 Connections: Understanding Tropical Ecology and Natural History via Belize, Central America (5)  
LAS/HST 437 Latin America Environmental History (3)  
LAS 477 Independent Studies (3-4)\*  
LAS 499 Study Abroad in Latin America and the Caribbean (3-6)  
ATH 426D Culture and Environment in Brazil (3-6)  
HST 400G Latin American History (3)  
HST/LAS 437 Latin America Environmental History (3)

### 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.

### Core Courses

At least 15 hours, with at least 6 credits of the Core Course hours coming from LAS courses or their cross-listed equivalents:

ART 317 The Arts of Colonial Latin America (3)  
ATH 305 Latin America: Anthropological Perspectives (3)  
ATH 313 Introduction to South American Archaeology (4)  
ATH/BWS/LAS/WGS 325 Identity, Race, Gender, Class (3)  
ATH 414 Caribbean Archaeology (3)  
ATH 415 Caribbean Archaeology: Field and Laboratory Methods (6)  
BUS 399S Doing Business in Costa Rica: Environmental Sustainability and Risk Management (4)  
BUS 420S The Environment of Business in Latin America (2)  
BWS/FST/LAS/MUS/WGS 204 Brazilian Culture Through Popular Music (3)  
BWS/LAS/HST 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)  
BWS/ENG/FST/POR/WGS 383 By or About (Afro-) Brazilian Women (3)  
ENG/LAS 254 Latino/a Literature and the Americas (3)  
GEO 304 Latin American Development (3)  
GEO 405 The Caribbean in Global Context (3)  
HST/LAS 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)  
HST 307 Latin American Civilization (Before 1820) (3)  
LAS 207 Latin America before 1910 (3)  
LAS/HST 260 Latin America in the United States (3)  
LAS 277,377,477 Independent Studies\*  
LAS 277X Service-Learning (1 credit, taken with any MPF course) \*\*  
LAS 300 Special Topics in Latin American Latino/a and Caribbean Studies (3)  
LAS 315 Latin American Diaspora Communities and Issues (3)  
LAS/HST 319 Revolution in Latin America (3)  
LAS/SPN 332 Latin American Popular Culture (3)  
LAS/HST/BWS 385 Race, Science, and Disease in the Americas (3)  
LAS 390 Variable Content Seminar in Latin American, Latino/a and Caribbean Studies (3)  
POL 337 Politics of Latin America (4)  
POL 378 Latin America: The Region and the World (3)  
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 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 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)  
BUS 371 International Business (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)  
FSW 206 Social Welfare: Impact on Diverse Groups (4)  
GEO 101 Global Forces, Local Diversity (3)  
GEO 111 World Regional Geography (3)  
GEO 473 Development and Underdevelopment (3)  
GEO 475 Global Periphery's Urbanization (3)  
HST 361 History of Colonial America (3)  
HST 371 Native American History (3)  
IDS 159 Strength Through Cultural Diversity (3)  
LAS 413/IES 423 Tropical Marine Ecology (5)  
LAS 417/IES/GLG 415 Coral Reef Ecology (5)  
ITS 201 Introduction to International Studies (3)  
ITS 301 Intercultural Relations (3)  
ITS 302 Problems of Non-Western Societies (3)  
MGT 304 Cross-Cultural Management (3)  
MKT 425/471L Global Marketing (3)  
MUS 185 World Music (3)  
MUS 186 Global Music for the I-Pod (3)  
POL 326 Comparative Ethnic Politics (3)  
POL 439 North American Politics: Unity and Diversity (3)  
SOC 348 Race and Ethnic Relations (3)  
SPN 482 Spanish Dialectology (3)

\* **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.

Students seeking the Bachelor of Arts in Latin American, Latino/a and Caribbean Studies meet the College of Arts and Science writing requirement by completing LAS 211 and an LAS culmination course: LAS 410, 437, 477, or 499.

## Linguistics Bachelor of Arts

For information, contact the Linguistics major advisor, 166 Irvin Hall (513-529-1852).

Linguistics is an interdisciplinary program with links to the social sciences, education, and the humanities. The major provides students with work in the formal structure, the social contexts, and the history of languages.

## Program Requirements

(41-44 semester hours)

### Core Courses (17 semester hours)

#### Take all of these:

ENG 201 Language Awareness (3)\*  
ENG 202 Varieties of English: Dialect Diversity and Language (3)  
ENG 301 History of the English Language (4)  
CLS/ENG/SPN 303 Introduction to Linguistics (4) **or**  
ATH/GER 309 Introduction to Linguistics (4)  
ENG 405 Advanced Linguistics: The Research Program of Noam Chomsky (3) (capstone course) **or**  
ENG 406 Discourse Analysis: Speech Acts in Context (3) (capstone course)

\*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.

### Related Courses (24-27 semester hours)

**Related I:** (Select 9 hours, (no more than two courses from one department)

CIT 154 Personal Computer Concepts and Applications (3)  
CSE 151 Computers, Computer Science, and Society (3)  
CSE 174 Fundamentals of Programming and Problem Solving (3)  
CSE 274 Data Abstraction and Data Structures (3)  
CSE 283 Data Communication and Networks (3)  
CSE 473 Automata, Formal Languages, and Computability (3)  
CSE 474 Compiler Design (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 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 471 Linguistic Perspectives on Contemporary German (3)  
 PSY 374 Psychology of Language and Thought (3)  
 SPA 101 Beginning ASL I (4)  
 SPA 223 Theories of Language Development (3)  
 SPA 334 Phonetics (3)  
 SPN 311 Grammar Review and Composition (3)  
 SPN 312 Introduction to Spanish Linguistics (3)  
 SPN 409 Advanced Spanish Composition (3)  
 SPN 481 Spanish Phonology and Syntax (3)  
 SPN 482 Spanish Dialectology (3)  
 SPN 483 History of the Spanish Language (3)  
 SPN 484 Second Language Acquisition: Spanish (3)

**Related II:** (Select 9 hours from Groups 1 and 2 (no more than one course from Group 1)

#### Group 1

ATH 425 Ethnographic Field Methods (3)  
 COM 262 Empirical Research Methods (3)  
 SOC 262 Research Methods (4)  
 SOC 462 Applied Sociological Research (3)

#### Group 2

ATH 265 Introduction to Linguistic Anthropology (4)  
 ATH 465 Ethnography of Communication (3)  
 COM 335 Rhetorical Theory in Western Thought (3)  
 COM 434 Non-Verbal Communication (3)  
 COM 436 Middle Childhood Language Arts (3)  
 EDT 427 Adolescent Language Arts I (3)  
 EDT 428 Adolescent Language Arts II (3)  
 EDT 444 Language Teaching and Learning I (3)  
 EDT 445 Language Teaching and Learning 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 374 Psychology of Language and Thought (3)  
 PSY 470 Seminar in Cognition (3)

**Related III:** (Select 6 or 9 hours in one of the following)

Concentration in Foreign Language Linguistics (9 hours) (Take nine hours in a single foreign language at the 300 level or above) **or**  
 Take six additional hours, selected from Related I and II.

**Note:** Foreign language courses taken to fulfill the Related requirements may not count toward the foreign language concentration.

Students seeking the Bachelor of Arts in Linguistics meet the College of Arts and Science writing in the major requirement by completing the following course/s: ENG 201 and 405 or 406.

## 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 GPA must be at least 2.00. Service courses do not figure into your GPA unless explicitly approved by the department.

Each degree requires the following introductory courses:

MTH 252 Calculus III (4)  
 MTH 252H Honors Calculus III (4)

**Choose ONE of the following:**

MTH 222 Introduction to Linear Algebra (3)  
 MTH 222T Introduction to Linear Algebra (Honors) (2)

## Major in Mathematics: Bachelor of Arts

### Program Requirements:

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 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 (4)

MTH 491 Introduction to Topology (3)

**A course chosen from ONE of these six lines:**

MTH 432 Optimization (3)

MTH 436 Combinatorial Designs and Coding Theory (3) **or**

MTH 437 Game Theory and Related Topics (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)

MME/MTH 495 Introduction to Applied Nonlinear Dynamics (3)

STA 401 Probability (3)

*At least one more course from the nine previous lines. This course must lie on a line different from the previous two choices.*

At least 10 of the hours at the 400 level must be earned in MTH courses and at least 9 hours at the 400 level must be earned at Miami (not as a Credit/No Credit).

Additional courses that count in the 19-advanced hour requirement are those in the above lists together with MTH 331, 347, 410, 411, 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.

Students seeking the Bachelor of Arts in Mathematics meet the College of Arts and Science writing in the major requirement by completing at least one course from each of the following tiers:

Tier 1: (Introductory Course) MTH 331 or 347

Tier 2: (Theory Course) MTH 421, 438, 441, 451, or 491

Tier 3: (Capstone Course) MTH 425, 435, or 482

There is one exception that is possible. Students with transfer credit for MTH 331 and MTH 347, or students who are so well prepared as to skip these courses, may take a second course from Tier 2 in place of a Tier 1 course.

## 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. At least 12 of the hours at the 400 level must be earned at Miami (not for Credit/No Credit).

**Theory courses. Both of these:**

MTH 421 Introduction to Abstract Algebra (4)

MTH 441 Real Analysis (3)

**Choose at least TWO of the following:**

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 (4)

MTH 483 Introduction to Mathematical Logic (3)

MTH 486 Introduction to Set Theory (3)

MTH 491 Introduction to Topology (3)

**Applications courses. Choose at least TWO of the following:**

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)

MME/MTH 495 Introduction to Applied Nonlinear Dynamics (3)

**Electives:**

Additional courses to complete the 28 required hours may be chosen from lists above or from MTH 331, 410, 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

### Program Requirements:

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. At least 12 of the hours at the 400 level must be earned at Miami (not for Credit/No Credit).

#### 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 (4)

#### Choose at least ONE of the following:

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)  
MME/MTH 495 Introduction to Applied Nonlinear Dynamics (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, 420, 422, 425 (MPC), 435 (MPC), 440, 442, 454, 470, 482 (MPC), 483, 486, 491, 492; STA 402, 427, 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 advisor *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 advisor.

Students majoring in Mathematics (Bachelor of Arts or Bachelor of Science) may use statistics as their related area. There is no restriction on the statistics courses that can count (service courses are OK), but courses applied to the related area cannot also be counted towards the requirements of the major. On the other hand, students majoring in Mathematics and Statistics (Bachelor of Science) cannot use statistics as their related area.

### 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College 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 Proof: Introduction to Higher 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.

## Media and Culture Bachelor of Arts

For more information, please contact the Media and Culture area of the Department of Media, Journalism and Film, 120 Williams Hall (513-529-3521).

Media and Culture 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.

### Program Requirements (38-39 semester hours)

#### Foundation (take both)

MAC 143 Introduction to Media (3)  
MAC 146 Media Aesthetics (3)

#### Core (take all four)

MAC 211 Introduction to Video Production (4)  
MAC 212 Media, Representation, and Society (3)  
MAC 213 Writing for Media (3)  
MAC 215 Media History (3)

#### Major Electives (five of these)

MAC/FST 282 Sexualities and Film (3)  
MAC 325 Social Media Cultures (3)  
COM 450 Topics in Communication  
MAC/WGS 461 Gender, Sexuality and Media (3)  
MAC 206 Diversity and Culture in American Film (3)  
MAC 267 Practicum in Electronic Media Production II (1-3)  
MAC 301 Journalism Law and Ethics (3)  
MAC 311 Digital Film Production (3)  
MAC 312 TV Studio Production (3)  
MAC 314 Digital Video Reporting (3)  
MAC 343 Advanced Audio Production (3)  
MAC 353 Audience Studies (3)  
MAC 355 Media Technology & Culture (3)  
MAC 443 Media Economics (3)  
MAC 446 Media Globalization (3)

#### Signature Experiences (at least one of these) - Additional Signature Experiences courses can also count toward major electives

MAC 462 Red Atlantic: Practicum in U.K. Media, Advertising & Public Relations (3)  
MAC 414 Capstone Pictures: Project in Digital Narrative Film Production (4; maximum 8)  
MAC 415 Practicum in Television Journalism (4)  
MAC 426 Inside Washington (8)  
MAC 427 Inside Washington Semester Experience (4)  
MAC 445 Electronic Media Policy and Regulation (3)  
MAC 447 Mass Media Criticism (3)  
MAC 454 The Washington Community (3-4)

**Related Courses (none required, but up to two of the five major elective courses can come from these)**

CMS 201 Introduction to Comparative Media (4)  
 CMS 301 Comparative Approaches to Media Studies (3)  
 CMS 350 Special Topics in Comparative Media Studies (3)  
 ENG 422 Creative Writing: Screenwriting (3)  
 IMS 211 The Analysis of Play (3)  
 JRN 202 Reporting and News Writing II (3)  
 JRN 314 Digital Video Reporting (3)  
 FST (any course)

**Notes on Curriculum:**

**Students must complete a second major or two minors.** Courses from the minors or second major can NOT be used to satisfy any requirements in the major.

MAC Independent Studies (177, 277 377, and 477) and MAC Internship (340) do not fulfill any specific Mass Communication curriculum requirement.

Students seeking the Bachelor of Arts in Media and Culture meet the CAS writing requirement by taking the following courses: MAC 213 and any Media and Culture course at the 400 or higher level.

## Media, Journalism and Film

At the time of publication, majors in the Department of Media, Journalism and Film are being revised.

For information, contact the appropriate program area of the Department of Media, Journalism and Film, 160 Bachelor Hall (513-529-7472).

Three majors, a co-major, and several context areas within these are offered:

- Bachelor of Arts, Media and Culture. For more information, see Media and Culture later in this chapter and/or contact that area of the department.
- Bachelor of Arts, in Strategic Communication. For more information, see Strategic Communication later in this chapter and/or contact that area of the department.
- A minor in Film Studies.
- Bachelor of Arts, Journalism. For more information see Journalism major requirements.
- Co-major, Comparative Media Studies. For more information see Comparative Media Studies later in this chapter and/or contact the area of the department.

## Medical 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 biology, clinical biochemistry, toxicology, microbiology, parasitology, immunology, immunohematology (blood bank) and hematology, for certification as Medical Laboratory Scientists (MLS) by the American Society for Clinical Pathology (ASCP).

### 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**

(76-84 semester hours)

**Core Biology Courses (15 hours):****All of these:**

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (4)  
 MBI 201 General Microbiology (4)

**One of these:**

MBI 365 Molecular and Cellular Biology (3) **or**  
 BIO 444 Molecular Biology (3)

**Core Chemistry Courses (18-25 hours):****All of these:**

CHM 141 or CHM 141R, 142 College Chemistry (3, 4, 3)  
 CHM 144, 145 College Chemistry Laboratory (2, 2)

**One of these:**

CHM 231 Fundamentals of Organic Chemistry (4) **or**  
 CHM 241, 242 Organic Chemistry (3, 3) **and** CHM 244, 245 Organic Chemistry Laboratory (2, 2)

**One of these:**

CHM 332 Outlines of Biochemistry (4) **or**  
 CHM 432 Fundamentals of Biochemistry (4)

**Core Math Courses (4-5):****One of these:**

MTH 151 Calculus I (5) **or**  
 STA 261 Statistics (4)

**Practicum/Internship Courses (32 hours):****All of these:**

MBI 487, 488, 489 Medical Laboratory Science Practicum (8, 12, 12)

**Elective Courses (7 hours minimum):****One of these:**

BIO 203 Introduction to Cell Biology (3)  
 CHM 363 Analytical Chemistry (3)  
 MBI 435 Medical Mycology (3)  
 MBI 464 Human Viruses (3)  
 PHY 171 College Physics (3) and PHY 173 Physics Laboratory (1)  
 PHY 181 The Physical World (4) and PHY 183 Physics Laboratory (1)

**One of these:**

BIO 161 Principles of Human Physiology (4)  
 BIO 305 Human Physiology (4)  
 MBI 405 Medical Bacteriology (4)  
 MBI 415 Immunology Principles and Practice (4)

## Microbiology Bachelor of Arts

For information, contact the Department of Microbiology, 32 Pearson Hall (513-529-5422).

The Bachelor of Arts degree is designed for students interested in a career in microbiology, the life or health sciences, or environmental sciences. Students who anticipate graduate study in microbiology should elect the B.S. in Microbiology program.

No course required for the major in microbiology may be taken on a credit/no-credit basis. All 100-level microbiology courses that do not satisfy departmental degree requirements courses cannot be counted toward the GPA or the 32 hours required for the Bachelor of Arts major in microbiology.

**Program Requirements**

(32 semester hours)

**Core Courses (16 hours)****All of these:**

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) **or**  
 MBI 121, 123 The Microbial World/Experimenting with Microbes (3, 1) **or**  
 MBI 161 Elementary Medical Microbiology (4)  
 BIO/MBI 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (4) **or**

BIO 114 Principles of Biology (4)

MBI 201 General Microbiology (4)  
 MBI 365 Molecular and Cellular Biology (3)  
 MBI 490 Undergraduate Seminar (1)

**Focus Courses (14 hours minimum)**

Select courses such that there is:

- 1) at least 1 course from each of the following groups (Biomedical, Integrative and Advanced core) and
- 2) at least 2 four-semester hour lab courses

**Biomedical courses:**

MBI 361 Epidemiology (3)

MBI 405 Medical Bacteriology (4)  
 MBI 414 Immunology Principles (3)  
 MBI 415 Immunology Principles and Practice (2)  
 MBI 435 Medical Mycology (3)  
 MBI 464 Human Viruses (3)

**Integrative courses:**

MBI 424 Advanced Experimental Techniques in Structural and Functional Genomics (4)  
 MBI 465 Microbial and Molecular Genetics Laboratory (2)  
 MBI 475 Microbial Ecology (4)  
 MBI 485 Principles of Bioinformatics (3)  
 MBI 495 Bacterial Cell Biology (3)

**Advanced core:**

MBI 425 Microbial Physiology (4)  
 MBI 445 Microbial Genetics (3)

**Note:** Credit not given for both MBI 414 and MBI 415.

**Elective Courses**

**Select from additional Focus Courses, from the following Elective Courses (Microbiology at the 200-level or higher) or from Biology or Chemistry (at the 300-level or higher) to complete the 32 required hours.**

MBI 256 Introduction to Programming for the Life Sciences (3)  
 MBI 333 Field Ecology (3)  
 MBI 364 Molecular Techniques (2)  
 MBI 402 Geomicrobiology (3)  
 MBI 440 Research Problems (2)  
 MBI 466 Bioinformatics Computing Skills (3)  
 MBI 477 Independent Studies (0-5)  
 MBI 480 Departmental Honors (1-3)  
 MBI 490 Undergraduate Seminar

**Note:** Credit not given for both MBI 364 and MBI 465.

**Note:** MBI 440, 440C, 477, 477C, 480, and 480C have a maximum of four credit hours that can receive a standard grade.

**Related Hours (20-25 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 (4)  
 PHY 171, 172 College Physics (3, 3) **and**  
 PHY 173, 174 Physics Laboratory (1, 1) **or**  
 PHY 181, 182 The Physical World (4, 4) **and**  
 PHY 183, 184 Introduction to Physics Laboratory (1, 1)

Students seeking the Bachelor of Arts in Microbiology meet the College of Arts and Science writing in the major requirement by completing the following courses: MBI 201, 365, and 490.

## Microbiology Bachelor of Science

For more information, contact the Department of Microbiology, 32 Pearson Hall (513-529-5422).

The Bachelor of Science in Microbiology is designed to provide more in-depth study than the Bachelor of Arts, particularly in preparation for pursuit of a graduate degree in microbiology and related fields. As part of this preparation, students are required to conduct independent research leading to public presentation of their results.

No course required for the major in microbiology may be taken on a credit/no-credit basis. All 100-level microbiology courses that do not satisfy departmental degree requirements cannot be counted toward the GPA or the 40 hours required for the Bachelor of Science major in microbiology.

**Program Requirements**

(40 semester hours)

**Core Courses (23 hours)**

**All of these:**

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) **or**  
 MBI 121, 123 Microbial World/Experimenting with Microbes (3, 1) **or**  
 MBI 161 Elementary Medical Microbiology (4)  
 BIO/MBI 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (4) **or**  
 BIO 114 Principles of Biology (4)  
 MBI 201 General Microbiology (4)  
 MBI 365 Molecular and Cellular Biology (3)  
 MBI 425 Microbial Physiology (4)

MBI 445 Microbial Genetics (3)  
 MBI 490 Undergraduate Seminar

**Focus Courses (14 hours minimum)**

**Lab requirement: Select at least TWO of the following courses:**

MBI 405 Medical Bacteriology (4)  
 MBI 415 Immunology Principles and Practice (4)  
 MBI 435 Medical Mycology (3)  
 MBI 475 Microbial Ecology (4)  
 MBI 485 Bioinformatics Principles (3)

**Research requirement: Select at least ONE of these courses:**

MBI 424 Advanced Experimental Techniques in Structural and Functional Genomics (4)  
 MBI 465 Microbial and Molecular Genetics Laboratory (2)  
 MBI 477 Independent Studies (2)

**Select additional Focus Courses, including from:**

MBI 361 Epidemiology (3)  
 MBI 414 Immunology Principles (3)  
 MBI 464 Human Viruses (3)  
 MBI 495 Bacterial Cellular and Developmental Biology (3)

**to total at least fourteen hours.**

**Note:** Credit not given for both MBI 414 and MBI 415.

**Elective Courses**

**Select from additional Focus Courses or from the following Elective Courses (Microbiology at the 200-level or higher) to complete the 40 required hours:**

MBI 256 Introduction to Programming for the Life Sciences (3)  
 MBI 333 Field Ecology (3)  
 MBI 364 Molecular Techniques (2)  
 MBI 402 Geomicrobiology (3)  
 MBI 440 Research Problems (2)  
 MBI 466 Bioinformatics Computing Skills (3)  
 MBI 477 Independent Studies (0-5)  
 MBI 480 Departmental Honors (1-3)

**Note:** Credit not given for both MBI 364 and MBI 465.

**Note:** MBI 440, 440C, 477, 477C, 480, and 480C have a maximum of four credit hours that can receive a standard grade.

**Related Hours (25-29 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) **and**  
 STA 261 Statistics (4)  
 PHY 171, 172 College Physics (3, 3) **and**  
 PHY 173, 174 Introduction to Physics Laboratory (1, 1) **or**  
 PHY 181, 182 The Physical World (4, 4) **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).

Philosophy is the search for knowledge regarding fundamental questions. The philosophy major provides students with the opportunity to examine the nature of reality and to understand the origin and development of ideas that structure and underlie the world and our lives. Philosophy majors will learn how to read complex texts critically, to write meaningfully and with clarity, and to understand and develop arguments.

**Program Requirements**

(35 semester hours)

**All of these:**

PHL 245 Writing Philosophy (3)  
 PHL 301 Ancient Philosophy (4)  
 PHL 302 Modern Philosophy (4)  
 PHL 404 What is Philosophy? (4) (capstone, must be taken senior year)

Any two 400/500 level seminars (4 credits each)

12 additional credit hours in philosophy to total 35 semester hours. No more than one course may be at the 100 level, not more than two of the additional courses may be at the 200 level and not more than 3 credits can be from independent study.

A minimum 2.00 GPA is required for all courses in the major, and courses must be taken for a grade, not credit/no credit.

Students seeking the Bachelor of Arts in Philosophy meet the College of Arts and Science writing in the major requirement by completing PHL 245 and 404.

## 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 and biological physics are described earlier in this chapter.

### 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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College of Education, Health and Society, 202 McGuffey Hall (513-529-6418).

### 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 281 Contemporary Physics I: Foundations (3)  
PHY 282 Contemporary Physics II: Frontiers (3)  
PHY 292 Electronic Instrumentation (2)  
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 advisor.

Ten hours of related courses with written approval from your physics advisor.

Students seeking the Bachelor of Arts in Physics meet the College of Arts and Science writing in the major requirement by completing PHY 293, 294, and either 488 or an independent study PHY course by petition.

### 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 281 Contemporary Physics I: Foundations (3)  
PHY 282 Contemporary Physics II: Frontiers (3)  
PHY 292 Electronic Instrumentation (2)  
PHY 293 Contemporary Physics Laboratory (2)  
PHY 294 Laboratory in Electronic Instrumentation (2)  
PHY 437 Intermediate Thermodynamics and Introduction to Statistical Physics (4)  
PHY 451 Classical Mechanics (4)  
PHY 461 Electromagnetic Theory (4)  
PHY 483 Mathematical Methods in Physics (4)  
PHY 491 Introduction to Quantum Physics I (4)

#### Choose ONE advanced laboratory course from the following:

PHY 420 Advanced Laboratory Physics (4)  
PHY 423 Materials Physics (4)  
PHY 427 Nano-scale Science and Technology (3)  
PHY 441 Optics and Laser Physics (4)  
PHY 442 Spectroscopy of Atoms and Molecules (4)  
PHY 471 Advanced Electronics (3)

#### Choose TWO courses from the following:

PHY 421 Molecular and Cellular Biophysics (4)

PHY 422 Physics for Medicine and Biology (4)  
PHY 431 Elementary Particle Physics (3)  
PHY 435 Introduction to Astrophysics (4)  
PHY 467 Seismology (3)  
PHY 481 Gravitation and Spacetime (3)  
PHY 486 Advanced Computational Physics (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: PHY 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, government, and public affairs. For this major, at least 15 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 GPA 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:

#### Required course:

POL 241 American Political System (4)

#### Choose at least two of the following:

POL 201 Political Thinking (4)\*  
POL 221 Modern World Governments (4)\*  
POL 261 Public Administration (4)\*  
POL 271 World Politics (4)\*

\*Prerequisites for 300 and 400-level courses in those subfields

#### Advanced courses:

In consultation with your faculty advisor, select at least 19 additional semester hours including:

- (1) 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.
- (2) Political Science MP Capstone course (POL 419, 424, 439, 459, 466, 471, 487 or 489).

#### Additional courses:

Additional hours from POL courses at the 200-level and above 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 cognate disciplines including: AMS, ATH, BLS, BWS, BUS, COM, ECO, GEO, GTY, HST, ISA, ITS, JRN, LAS, MGT, PHL, PSY, REL, SOC, WGS or AES 221, 222, 431, 432; ENG 432; NSC 202, 311 or 402; and other courses as approved by the Chief Departmental Advisor or Chair.
- 2) At least 12 hours must be at the 200 level or higher.
- 3) A minimum 2.00 GPA in all related hours is required.

#### Note about Double Majoring in the Department:

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.

#### CAS Writing Competency Requirement:

Students seeking the Bachelor of Arts in Political Science meet the College of Arts and Science writing in the major requirement by completing the following courses: (1) Take at least one of the required 200-level courses in a "Writing" or "W" section; (2) Take at least one of the POL 300-level courses in a "W" section; (3) and complete one of the required POL Capstone courses (all of which meet the Writing requirement).

## Premedical Studies Co Major

Provides a broad-based premedical background and prepares students to pursue advanced degrees in medicine as well as other healthcare related fields. Integrates comprehensive, regularly scheduled premedical advising with courses that cover fundamental concepts in the biological, physical, and social sciences required for admission to medical school or other health professional schools, and/or in preparation for the Medical College Admission Test (MCAT). A co-major must be taken in conjunction with a primary major, which provides the significant depth and breadth of an academic discipline; it cannot be taken independently. There is no specific degree designation for the co-major; students receive the degree designation of their primary major.

Note: Students are not required to complete the co-major for successful application and admittance to medical school or other health professional schools. Premedical Studies courses as well as access to services provided by the Mallory-Wilson Center for Healthcare Education and the Premedical Advisory Committee are available to all students.

### Program Requirements

#### Required courses (62-67 hrs)

#### Complete a major in one of the divisions of the university.

#### Biology (11-12 hrs)

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) **or**

BIO 114 Principles of Biology (2)

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4) **or**

BIO 113 Animal Diversity (4) **or**

BIO 305 Human Physiology (4) **or**

MBI 201 General Microbiology (4)

BIO/MBI at the 200-level or higher (3-4, not independent study)

#### Chemistry - (24 hrs)

#### General Chemistry

CHM 141, 144 College Chemistry/College Chemistry Lab (3, 2)

CHM 142, 145 College Chemistry/College Chemistry Lab (3, 2)

#### Organic Chemistry

CHM 241, 244 Organic Chemistry/Organic Chemistry Laboratory (3, 2) **or**

CHM 251, 254 Organic Chemistry for Chemistry Majors/Organic Chemistry Laboratory for Chemistry Majors (3, 2)

CHM 242, 245 Organic Chemistry/Organic Chemistry Laboratory (3, 2) **or**

CHM 252, 255 Organic Chemistry for Chemistry Majors/Organic Chemistry Laboratory for Chemistry Majors (3, 2)

#### Biochemistry

CHM 432 Fundamentals of Biochemistry (4) \* **or**

CHM 332 Outlines of Biochemistry (4)

#### English Composition (6 hrs)

ENG 111 Composition and Rhetoric (3) and

ENG 112 Composition and Literature (3) **or**  
equivalent Honors composition courses

#### Math/Statistics (3-4 hrs)

STA 261 Statistics (4) **or**

STA 301 Applied Statistics (3) **or**

STA 368 Introduction to Statistics (4) **or**

ISA 205 Business Statistics (4)

#### Physics (8-10 hrs)

PHY 171, 173 College Physics/Physics Laboratory (3, 1) **or**

PHY 181, 183 The Physical World/Physics Laboratory (4, 1)

PHY 172, 174 College Physics/Physics Laboratory (3, 1) **or**

PHY 182, 184 The Physical World/Physics Laboratory (4, 1)

#### Professional Development (2 hrs)

PMD 101 Explorations in Medicine (1)

PMD 301 Preparing for a Career in Medicine (1)

#### Social Science (8 hrs)

PSY 111 Introduction to Psychology (4)

SOC 153 Sociology in a Global Context (3) \* **or**

SOC 151 Social Relations (4)

#### Recommended Electives (7-9)

One additional course in BIO/MBI at the 200-level or higher

MTH 151 Calculus I (5) **or**

MTH 153 Calculus I (4)

\* CHM 432 and SOC 153 are the preferred courses for Biochemistry and Sociology.

## 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 GPA 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 GPA 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 advisor. 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)

PSY 293 Research Design and Analyses in Psychology I (4)

PSY 294 Research Design and Analyses in Psychology II (4)

STA 261 Statistics (4)

#### Choose at least ONE course from each of the following groups:

Biopsychology: PSY 251 or 351 or 356

Cognitive: PSY 271 or 275 or 372 or 373 or 374 or 375 or 376 or 453 or 470

Developmental: PSY 231 or 331 or 332 or 333 or 334 or 430

Individual: PSY 241 or 242 or 343 or 345

Social: PSY 221 or 324 or 325 or 326 or 327 or 328 or 420

#### Additional requirements:

• Minimum of two 300-level or higher and two 400-level or higher courses (one course must be PSY 410).

• 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

Students seeking the Bachelor of Arts in Psychology meet the College of Arts and Science writing in the major requirement by completing the following course/s: PSY 293, 294 and 410.

## 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 in government and not-for-profit organizations, 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, public policy analysis and program evaluation. This major also prepares students for continued education in professional and graduate schools of public administration, public policy analysis, and related fields. It also serves as a pre-law course of 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 GPA 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 electives (at least 18 hours):**

**Choose at least 12 hours from this list:**

POL 307 Public Opinion Laboratory (2)  
 POL 351 Criminal Justice (4)  
 POL 362 Public Management, Leadership, and Administrative Politics (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 and Not-for-Profit Organizations (3)  
 AMS 302 Transnational America (3)  
 COM 339 Introduction to Organizational Communication (3)  
 ECO 331 Public Sector Economics (3)  
 ECO 406 Environmental Economics (3)  
 ECO 435 Urban and Regional Economics (3)  
 ENG 313 Technical Writing (3)  
 GEO 451 Urban and Regional Planning (3)  
 GTY 365 Social Policy and Programs in Gerontology (3)  
 HST 379 U.S. Consumerism, 1890-Present (3)  
 IES 431 Principles and Applications of Environmental Science (3)  
 IES 450 Environmental Law (3)  
 JRN 412 Public Affairs Reporting (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 advisor.

**Senior Capstone Seminars (5 hours):**

**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 340) 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.

### CAS Writing Competency Requirement:

Students seeking the Bachelor of Arts in Public Administration meet the College of Arts and Science writing in the major requirement by completing the following courses: (1) Take either POL 241 or 261 in a "Writing" or "W" section; (2) Take at least one of the required POL 300-level courses in a "W" section; (3) and complete the required Capstone course (which meets the Writing requirement).

## Religion Bachelor of Arts

For information, contact the Department of Comparative Religion, 164 Upham Hall (513-529-4300).

## Program Requirements

(27 semester hours)

REL 201 Methods for the Study of Religion (3)

9 hours consisting of one 200-level course selected from each of two categories of introductory courses plus 1 additional 200-level course from either of the same two categories of introductory courses OR REL 101.

### Category A:

REL 275 Introduction to the Critical Study of Biblical Literature (3)  
 REL 286 Global Jewish Civilization (3)  
 REL 241 Religions of the American Peoples (3)

### Category B:

REL 203 Global Religions of India (3)

REL 226 Islam in History (3)

15 hours at 300-level or above including 1 course at 400 level

### Related Hours

(15 non-REL credit hours required) selected in consultation with an advisor; 9 of these hours must be 300-level or above.

Students seeking the Bachelor of Arts in Comparative Religion will meet the College of Arts and Science writing in the major requirement by completing the following course/s: REL 201 and REL 430 or another approved 400-level course.

## Russian, East European, and Eurasian Studies Bachelor of Arts

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 172 Irvin Hall (513-529-2526).

This interdisciplinary major allows students to study the history, politics, 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 302 or above is required. Students are encouraged to attend the Miami summer Russian language workshop in Novgorod, Russia, the Miami summer Havighurst cultural workshop in varying locations in Russia, Eastern Europe, and Eurasia or an approved academic study program in Russia, Central Asia, the Caucasus, or Eastern Europe.

## Program Requirements

(36-37 semester hours)

### Core requirements:

**All of these (15 hours):**

ATH/HST/POL/REL/RUS 254 Introduction to Russian and Eurasian Studies (3)  
 RUS 201, 202 Intermediate Russian (3, 3)  
 RUS 301, 302 Advanced Russian (3, 3)

Choose one Area of Emphasis:

### I. Language, Literature, and Culture Emphasis (21 hours)

**Both of these (6 hours):**

RUS 311 Readings in Russian (3)  
 RUS 411 Advanced Conversation and Composition (3)

**Choose TWO of the following (6 hours):**

RUS 137 Russian Folklore (3)  
 RUS 250 Topics in Russian Literature (3; maximum 9)  
 RUS 255, 256, 257, 258 Russian Literature in English Translation (3, 3, 3, 3)  
 RUS/FST 263 Soviet & Post-Soviet Russian Cinema (3)  
 RUS/FST 272 East European Literature and Film (3)  
 RUS 412 Advanced Conversation and Composition (3)  
 RUS 450 Topics in Russian Culture (3, max. 9)  
 RUS 480 Departmental Honors (4-6)

**Choose THREE of the following (9 hours):\***

ATH/GEO/RUS 306 Russia and Eurasia: Anthropological Perspectives (3)  
 ATH 384 Anthropology of Capitalism: Russia (3)  
 ATH/HST/POL/REL/RUS 482 Russian, Eastern European and Eurasian Summer Workshop (6; maximum 12)  
 CLS/ENG/RUS 325 Russian Reception of Classical Culture (3)  
 HST 324 Eurasian Nomads and History (3)  
 HST/RUS 436/536/POL 440/540 Havighurst Colloquium (3)  
 HST 374 History of the Russian Empire (3)  
 HST 375 The Soviet Union and Beyond (3) (3)  
 HST 428/528 Russia's War and Peace (3)  
 HST 470 Topics in Russian History (3)  
 POL 331 Communism and Soviet Politics, 1917-1991 (3)  
 POL 332 Post-Soviet Russian Politics (3)  
 POL 334 Politics of Eastern Europe (3)  
 POL 430B Political Systems of Russia and Eastern Europe (4)  
 POL 488 Russia and the Republics (3)  
 REL/RUS 133 Imagining Russia (3)  
 REL 337 Religions of Russia and Eurasia (3)  
 REL 338 Eastern Christianity (3)

\* or appropriate courses substituted with approval from your Russian, East European, and Eurasian Studies advisor

## II. History and Politics Emphasis (22 hours)

### **This course (3 hours):**

HST 436/POL 440 Havighurst Colloquium (3)

### **Choose TWO of the following (6 hours):**

HST 324 Eurasian Nomads and History (3)  
HST 374 Russia to 1855 (3)  
HST 375 Russia and the U.S.S.R. from 1855 to the Present (3)  
HST 428 Russia's War and Peace (3)  
HST 470 Topics in Russian History (3)

### **Choose TWO of the following (6 hours):**

POL 331 Development of the Russian Polity (3)  
POL 332 Post-Soviet Russian Politics (3)  
POL 334 Politics of Eastern Europe (3)  
POL 430B Political Systems of Russia and Eastern Europe (4)  
POL 488 Russia and the Republics in International Relations (3)

### **Choose TWO of the following (6 hours):**

ATH/GEO/RUS 306 Peoples and Cultures of Russia and Eurasia (3)  
ATH 384 Anthropology of Capitalism: Russia (3)  
ATH/HST/POL/REL/RUS 482 Russian, Eastern European and Eurasian Summer Workshop (6)  
CLS/ENG/RUS 325 Russian Reception of Classical Culture (3)  
REL/RUS 133 Imagining Russia (3)  
REL 337 Religions of Russia and Eurasia (3)  
REL 338 Eastern Christianity (3)  
RUS 137 Russian Folklore (3)  
RUS 250 Topics in Russian Literature (3; maximum 9)  
RUS 255, 256, 257, 258 Russian Literature in English Translation (3, 3, 3, 3)  
RUS/FST 263 Soviet & Post-Soviet Russian Cinema (3)  
RUS/FST 272 Cultures and Identities of Eastern Europe: An Introduction through Literature and Film (3)  
RUS 311 Reading in Russian (3)  
RUS 411, 412 Advanced Conversation and Composition (3, 3)  
RUS 450 Topics in Russian Culture (3; maximum 9)

Students seeking the Bachelor of Arts in Russian, East European, and Eurasian Studies: Language, Literature, and Culture Emphasis meet the College of Arts and Science writing in the major requirement by completing the following courses: RUS 302, 311, and 411.

Students seeking the Bachelor of Arts in Russian, East European, and Eurasian Studies: History and Politics Emphasis meet the College of Arts and Science writing in the major requirement by completing the following courses: ATH/HST/POL/REL/RUS 254 and HST/RUS 436/536/POL 440/540.

## Social Justice Studies Bachelor of Arts

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

The Bachelor of Arts in Social Justice Studies (SJS) offers a sociologically-based foundation of knowledge and skills to examine the essential connections between social values, structured inequalities, and social change. A comprehensive, integrated curriculum offers six tracks – Social Justice and Inequalities (Track 1), Crime, Law and Social Justice (Track 2), Women, Sexuality and Social Justice (Track 3), Global Peace and Social Justice (Track 4), Social Justice through Community Engagement (Track 5), or Global Human Rights and Justice (Track 6) – and a required praxis component.

**Note:** Required Social Justice Studies courses 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 GPA of at least 2.00 is required for this major, and only three hours of independent study may be included

A student may not declare a double major in SOC and SJS if he/she is taking Track 1 or Track 2 of the SJS major.

A student may NOT major in SJS Track 2 and minor in Criminology.

Students seeking the Bachelor of Arts in Social Justice Studies meet the College of Arts and Science writing in the major requirement by completing the following courses: SJS 165, SJS 323, and SJS 470.

## Program Requirements

(40 Semester hours)

### Track 1- Social Justice and Inequalities

#### **Core Courses: Take ALL of these (17 credit hours):**

SJS/SOC 165 Introduction to Social Justice Studies (3)

SJS 323 Social Justice and Change (3)

SJS 470 Social/Political Activism (3)

SOC 262 Research Methods (4)

STA 261 Statistics (4)

#### **INTRODUCTORY COURSES: Take at least 6 credit hours from the following list:**

REL 312 Religions of the Old Testament/Hebrew Bible (3)  
SJS 159 Creating Global Peace (3)  
SJS 204 Introduction to Service-Learning (3)  
SJS 215 EMPOWER I: Educational and Economic Justice and Service-Learning (2)  
SJS 216 EMPOWER II: The Intersections of Race, Class, and Education (2)  
SJS 265 Critical Inquiry: The Penny Lecture Series (2)  
SJS 304 Theory Into Action: Service-Learning (3)  
SOC 201 Social Problems (4)  
SOC 203 Sociology of Gender (3)  
SOC 221 Human Sexuality (3)  
SOC 225 Work and Occupational Justice (3)  
SOC 260A Internship: An Introduction to Applied Sociology and Human Services (maximum 4 credit hours counts toward major)  
SOC 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)

#### **ADVANCED COURSES: Take at least 9 hours from the following list:**

ESP 464 Social Entrepreneurship (3)  
ITS 340 Internships (maximum 4 credit hours count towards major)  
ITS 365 Applied Topics in International Studies (3)  
REL 385 The Religious Roots of Anti-Semitism (3)  
SJS 303 Professional Development (3)  
SJS 487 Globalization, Social Justice and Human Rights (3)  
SJS 497 Methods of Social Justice Inquiry (3)  
SOC 305 Sociology of Globalization (3)  
SOC 318 Sociology of Aging and the Life Course (3)  
SOC 348 Race and Ethnic Relations (3)  
SOC 362 Family Poverty (3)  
SOC 372 Social Stratification (3)  
SOC 375 (Dis)Ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)  
SOC 412 Sociology of Law (3)  
SOC 417 Economy and Society (3)  
SOC 448 African-American Experience (3)  
SOC 463 Gender and Aging (3)  
WST 341 Interdisciplinary Synthesis and Action (3)

#### **RELATED HOURS: Complete the required 8 hours for the major from the list below:**

AMS 301 American Identities (3)  
AMS 302 Transnational America (3)  
ATH 175 Peoples of the World (3)  
ATH 185 Cultural Diversity in the U.S. (3)  
ATH 325 Identity, Race, Gender, Class (3)  
ATH 358 Travelers, Migrants, and Refugees (3)  
BWS 151 Introduction to Black World Studies (4)  
BWS 267 National Cinemas: African Film (3)  
BWS 432 Feminism and the Diaspora: U.S. Women of Color (3)  
CLS 321 Justice and the Law in Antiquity (3)  
ECO 131 Economic Perspectives on Inequality in America (3)  
ECO 342 Comparative Economic Systems (3)  
ECO 347 Economic Development (3)  
ECO 356 Poverty and Income Distribution (3)  
ECO 361 Labor Economics (3)  
ECO 462 Economics of Compensation (3)  
EDL 282 Cultural Studies, Power, and Education (3)  
EDL 401 Cultural Studies and the Complexity of Empowerment (3)  
EDP 272 Introduction to Disability Studies (3)  
IES 414 Latin American Environmental Affairs (3)  
IES 450 Environmental Law (3)  
FSW 206 Social Welfare: Impact on Diverse Groups (4)  
FSW 207 Serving and Supporting Children, Youth and Families I (4)  
FSW 208 Serving and Supporting Children, Youth and Families II (5)  
FSW 261 Diverse Family Systems Across the Life Cycle (3)  
FSW 309 Social Welfare Policy II (3)  
FSW 362 Family Poverty (3)  
GEO 201 Geography of Urban Diversity (3)  
GEO 211 Global Change (3)  
GEO 378 Political Geography (3)  
GTU 260 Global Aging (3)  
GTU 365 Social Policy and Programs in Gerontology (3)  
GTU 472 Race, Ethnicity and Aging (3)  
IDS 159 Strength Through Cultural Diversity (3)  
ITS 201 Introduction to International Studies (3)  
KNH 274 Critical Perspectives on the Body (3)  
LAS 207 Latin America Before 1910 (3)  
LAS 208 Introduction to Latin America (3)  
LAS 254 Latino/a Literature and the Americas (3)  
LAS 260 Latin America in the United States (3)  
LAS 315 Latin American Diaspora: Communities, Conditions and Issues (3)  
LAS 319 Revolution in Latin America (3)  
LAS 414 Latin American Environmental Affairs (3)  
LAS 415 Cuba in Revolution: Its History, Politics, and Culture (4)  
PHL 131 Introduction to Ethics (3)  
PHL 311 Ethical Theory (4)  
PHL 312 Contemporary Moral Problems (4)



PHL 331 Political Philosophy (3)  
 PHL 335 Philosophy of Law (4)  
 PHL 375 Medical Ethics (4)  
 PHL 376 Environmental Philosophy (4)  
 POL 142 American Politics and Diversity (4)  
 POL 201 Political Thinking (4)  
 POL 302 Classical Political Philosophy (4)  
 POL 303 Modern Political Philosophy (4)  
 POL 326 Comparative Ethnic Politics (3)  
 POL 345 National Issues (3)  
 POL 346 Global Gender Politics (3)  
 POL 347 Women and the Law (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)  
 PSY 210 Psychology Across Cultures (3)  
 REL 333 Religion, Dress and Status (3)  
 SPA 211 Deaf Culture and Community (3)  
 WGS 201 Introduction to Women's Studies (3)  
 WGS 202 Introduction to GLBT Studies (3)  
 WGS 301 Women and Difference (3)  
 WGS 436 Women, Gender and the Environment (3)

Students may complete an independent study (SJS 177, 277, 377, 477) if content is relevant (must be pre-approved by CDA).

Students may complete a special topics course (SOC 410, 490) if content is relevant (must be pre-approved by CDA).

### Track 2: Crime, Law and Social Justice

**Note:** For students enrolled in Track 2 only, SJS/SOC 470 can be substituted with SOC/FSW 451.

A student may NOT major in SJS Track 2 and minor in Criminology.

**Core Courses:** Take ALL of the following (17 credit hours):

SJS 165 Introduction to Social Justice Studies (3)  
 SJS 323 Social Justice and Change (3)  
 SJS 470 Social/Political Activism (3)  
 SOC 262 Research Methods (4)  
 STA 261 Statistics (4)

**INTRODUCTORY COURSES:** Take ONE of these (4 credit hours)

SOC 201 Social Problems (4) or  
 SOC 202 Social Deviance (4)

**ADVANCED COURSES:** Take FOUR of these (12 or 13 credit hours)

SJS 303 Professional Development (3)  
 SOC 352 Criminology (3)  
 SOC 409 Systems of Justice (3)  
 SOC 410 Topics in Criminology (3)  
 SOC 412 Sociology of Law (3)  
 SOC 413 Juvenile Delinquency (3)  
 SOC 440C Field Experience in Sociology (maximum 4 credit hours counts toward major)  
 SOC 451 Family Violence (3) MPC

**RELATED HOURS:** Complete the required hours for the major from the list below:

AES 432 National Security Affairs and Preparation for Active Duty (3)  
 BLS 342 Legal Environment of Business (3)  
 BLS 437 Cyberlaw (3)  
 BLS 465 Ethics, Law, and Business (3)  
 BTE 108 Introduction to Business Law (3)  
 CJS 321 Criminal Justice Administration (3)  
 CSE 262 Technology, Ethics, and Global Society (3)  
 ECO 325 Economic Analysis of Law (3)  
 EDL 334 Youth Subcultures, Popular Culture, and Non-Formal Education (3)  
 FSW 465 Child Maltreatment (2)  
 HST 329 Lynching in America 1865-1940 (3)  
 HST 348 Witch Craze and Other 'Great Fears' in Europe and America (3)  
 IDS 159 Strength Through Cultural Diversity (3)  
 ITS 201 Introduction to International Studies (3)  
 JRN 301 Journalism Law and Ethics (3)  
 KNH 205 Understanding Drugs for the Health Promotion Professional (3)  
 MAC 445 Electronic Media Policy and Regulation (3)  
 MGT 402 Employment Law (3)  
 PHL 131 Introduction to Ethics (3)  
 PHL 311 Ethical Theory (4)  
 PHL 312 Contemporary Moral Problems (4)  
 PHL 331 Political Philosophy (3)  
 PHL 335 Philosophy of Law (4)  
 POL 276 Homeland Security and Critical Incident Management (3)  
 POL 347 Women and the Law (3)  
 POL 351 Criminal Justice (4)  
 POL 352 Constitutional Law and Politics (4)  
 POL 387 Comparative Security Issues (3)  
 PSY 242 Abnormal Psychology (3)  
 PSY 328 Psychology of Stigma and Victimization (3)  
 SJS 497 Methods of Social Justice Inquiry (3)

Students may complete an independent study (SJS 177, 277, 377, 477) if content is relevant (must be pre-approved by CDA).

Students may complete a special topics course (SOC 490) if content is relevant (must be pre-approved by CDA).

### Track 3: Women, Sexuality and Social Justice

**Note:** This track has an embedded WGS minor.

**Note:** For students enrolled in Track 3 only, courses marked with an asterisk (\*) may be substituted with GER 309/ATH 309/SPN 303/ENG 303/CLS 303 and PHL 273.

**Core Courses:** Take ALL of these (17 credit hours)

SJS 165 Introduction to Social Justice Studies (3) \*  
 SJS 323 Social Justice and Change (3)  
 SJS 470 Social/Political Activism (3)  
 SOC 262 Research Methods (4) \*  
 STA 261 Statistics (4) \*

**REQUIRED WGS COURSES:** (6 credit hours)

WGS 201 Introduction to Women's Studies (3) or  
 WGS 202 Introduction to GLBT Studies (3)  
 WGS 301 Women and Difference (3)

**ELECTIVE WGS COURSES:** Take 6 of these (at least 17 credit hours)

WGS/SOC/FSW 221 Human Sexuality (3)  
 WGS/ENG 232 American Women Writers (3)  
 WGS/ENG 233 British Women Writers (3)  
 WGS 237 GLBTQ Literature (3)  
 WGS 243 Women's Health Care: Problems and Practices (3)  
 WGS 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)  
 WGS 302 Gender and Geography (3)  
 WGS 309 Native American Women (3)  
 WGS 325 Identity: Race, Gender, Class (3)  
 WGS 326 Psychology of Women (3)  
 WGS 333 Religion, Dress, and Status (3)  
 WGS 335 Women and the Bible (3)  
 WGS 346 Global Gender Politics (3)  
 WGS 347 Women and the Law (3)  
 WGS 351 Cultural Politics of Gender and Sexuality in Asian/America (3)  
 WGS 355 Feminist Theory (3)  
 WGS 368 Feminist Literary Theory and Practice (3)  
 WGS 383 By and About Afro-Brazilian Women (3)  
 WGS 402 Engaged Learning Practicum (1-6)  
 WGS 406 Indigenous Peoples and their Sacred Land (3)  
 WGS 435 Queer Theory (3)  
 WGS 436 Women, Gender and the Environment (3)  
 WGS 451 Family Violence (3)  
 WGS 463 Gender and Aging (3)  
 WGS 468 Gender and Genre (3)  
 WGS 475 Women, Gender Relations and Sport (3)  
 WGS 497 Methods of Social Justice Inquiry (3)

### Track 4: Global Peace and Social Justice

**Note:** This track has an embedded GEO minor.

**Core Courses:** Take ALL of these (17 credit hours):

SJS 165 Introduction to Social Justice Studies (3)  
 SJS 323 Social Justice and Change (3)  
 SJS 470 Social/Political Activism (3)  
 SOC 262 Research Methods (4)  
 STA 261 Statistics (4)

**Global to Local Understanding:** (Take all 4 courses; 12 credit hours)

GEO 101 Global Forces, Local Diversity (3) or  
 GEO 111 World Regional Geography: Patterns and Issues (3)  
 GEO 159 Creating Global Peace (3)  
 GEO 205 Population and Migration (3)  
 GEO 211 Global Change (3)

**Regions and Cultures:** (select at least 1 course; 3-4 credit hours)

GEO 208 The Rise of Industrialism in East Asia (3)  
 GEO 301 Geography of Sub-Saharan Africa (4)  
 GEO 307 Geography of Central and Eastern Europe, and Russia (3)  
 GEO 308 Geography of East Asia (3)  
 GEO 311 Geography of Europe (3)  
 GEO 408 Geography of the Silk Road (The Heart of Asia) (3)  
 GEO 410 Advanced Regional Geography (1-4; maximum 12)

**Geographic Patterns and Processes:** (select at least 2 courses; 6 credit hours)

GEO 271 Human Dimensions of Natural Resource Conservation (3)  
 GEO 302 Geography and Gender (3)  
 GEO 378 Political Geography (3)  
 GEO 385 Media Geographies (3)  
 GEO 405 The Caribbean in Global Context (3)  
 GEO 436 Women, Gender, and the Environment (3)  
 GEO 457 Global Cities, World Economy (3)  
 GEO 458 Cities of Difference (3)  
 GEO 460 Advanced Systematic Geography (1-4) (need approval of the CDA)  
 GEO 475 Global Periphery's Urbanization (3)  
 GEO 476 Global Poverty (3)

**Scholarship and Practice (select 1-3 courses; 1-11 credit hours)**

GEO 340 Internship (need approval of the CDA, 3-6)  
 GEO 395 Scholarship and Practice in Geography (1)  
 GEO 477 Independent Studies (need approval of the CDA, 1-3)  
 GEO 491 Geography Senior Capstone (need approval of the CDA, 4)

**Note:** Students are encouraged to participate in FIELD STUDY ABROAD and apply credits and experiences toward the program (must be pre-approved by CDA).

**Note:** Complete required hours from approved electives (see full curriculum for the major or select in consultation with the CDA).

**Track 5: Social Justice through Community Engagement**

Note: This course has an embedded thematic sequence, the Over-the-Rhine residency program.

**Core Courses: Take ALL of these (17 credit hours):**

SJS 165 Introduction to Social Justice Studies (3)  
 SJS 323 Social Justice and Change (3)  
 SJS 470 Social/Political Activism (3)  
 SOC 262 Research Methods (4)  
 STA 261 Statistics (4)

**Complete the Over-the-Rhine Residency Program (15 credit hours)**

The residency program combines in-class instruction and community engagement. Specific course requirements differ for ARC majors and non-ARC majors. For additional information, please contact the director of the Program, Dr. Tom Dutton, (duttona@MiamiOH.edu).

**Related Hours: Complete the required 8 additional hours from this list:**

ECO 131 Economic Perspectives on Inequality in America (3)  
 EDL 204 Socio-cultural Studies in Education (3)  
 EDL 282 Cultural Studies, Power, and Education (3)  
 GEO 201 Geography of Urban Diversity (3)  
 GEO 455 Race, Urban Change, and Conflict in America (3)  
 GEO 476 Global Poverty (3)  
 SOC 362 Family Poverty (3)  
 SOC 372 Social Stratification (3)  
 SOC 348 Race and Ethnic Relations (3)

**Track 6: Global Human Rights and Justice****Core Courses: Take ALL of these (17 credit hours):**

SJS 165 Introduction to Social Justice Studies (3)  
 SJS 323 Social Justice and Change (3)  
 SJS 470 Social/Political Activism (3)  
 SOC 262 Research Methods (4)  
 STA 261 Statistics (4)

**Required ITS courses: (6 credit hours)**

ITS 201 Introduction to International Studies (3)  
 ATH/ITS 301 Intercultural Relations (3)

**Elective Courses: (take 2 of the following: 6 or 7 credit hours)**

ATH 175 Peoples of the World (3)  
 GEO 378 Political Geography (3)  
 POL 271 World Politics (4)  
 SJS 487 Globalization, Social Justice and Human Rights (3)

**Related Hours: (complete the 40 hours required for the major through electives below)**

AAA 207 Asia and Globalization (3)  
 ATH 358 Travelers, Migrants, and Refugees: Transnational Migration and Diasporic Communities (3)  
 ATH 428 Anthropology of Women's Health (3)  
 ATH 448 Developing Solutions in Global Health (3)  
 ATH/LAS/WGS 325 Identity, Race, Gender, Class (3)  
 BWS 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)  
 GEO 201 Geography of Urban Diversity (3)  
 GEO 436 Women, Gender, and the Environment (3)  
 GEO 461 Migrants & Diasporas (3)  
 GTY 260 Global Aging (3)  
 HST 332 Age of Dictators: Europe 1914-1945 (3)  
 ITS 365 Applied Topics in International Studies (3)  
 PHL/WGS 355 Feminist Theory (3)  
 POL 326 Comparative Ethnic Politics (3)  
 POL/WGS 346 Global Gender Politics (3)  
 POL/WGS 347 Women and the Law (3)  
 POL 382 International Law (3)  
 SJS/SOC 410 Topics in Criminology (3) (if relevant, must be approved by CDA)  
 SOC/WGS 203 Sociology of Gender (3)  
 SOC/GEO/ITS 208 The Rise of Industrialism in East Asia (3)  
 SOC 225 Work and Occupational Justice (3)  
 SOC 257 Population (3)  
 SOC 305 Introduction to the Sociology of Globalization (3)  
 SOC 417 Economy and Society (3)  
 SOC 490 Current Issues in Sociology (3) (if relevant, must be approved by CDA)

## 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.

Required sociology courses 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 GPA 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 every year; consult with your sociology advisor before registering each semester. A sociology capstone class is required for the major. If you complete more than one sociology capstone class, the hours from the additional course(s) will count as elective hours. **Note:** A capstone class will count as a capstone ONLY if you have senior standing.

**NOTE:** A student may not declare a double major in SOC and SJS if he/she is taking Track 1 or Track 2 of the SJS major.

**NOTE:** A student majoring in SOC and minoring in Criminology must fulfill the requirements for the major AND the minor for a total of 50 SOC credits.

Students seeking the Bachelor of Arts in Sociology meet the College of Arts and Science writing in the major requirement by completing the following courses: SOC 262, 482, and 459 or 470.

Students seeking the Bachelor of Arts in Sociology meet the College of Arts and Science quantitative literacy requirement by completing SOC 262.

**Program Requirements: Basic Major  
(40 semester hours)**

**Note:** All 300 and 400 level sociology courses require SOC 151 or SOC 153 as a prerequisite. Prerequisites may be waived with permission of instructor. Credit toward the sociology major **cannot** be granted for both SOC 151 and SOC 153 or for both SOC 151 and SOC 152 or for both SOC 152 and SOC 153.

**All of these:**

SOC 151 Social Relations (4) **or**  
 SOC 153 Sociology in a Global Context (3)  
 SOC 262 Research Methodology (4)  
 SOC 372 Social Stratification (3)  
 SOC 482 Sociological Theory (4)

**A Sociology Capstone Course:** Select at least ONE of the following

SOC 459 Sociology Capstone (3)  
 SOC 462 Applied Sociological Research (3)  
 SOC 470 Social/Political Activism (3)

**Related hours**

STA 261 Statistics (4) (**Note: We recommend taking STA 261 after SOC 262.**)

Additional hours in sociology to make up the 36 required hours: At least 9 hours must be at or above the 300 level:

SOC 165 Introduction to Social Justice Studies (3)  
 SOC 201 Social Problems (4)  
 SOC 202 Social Deviance (4)  
 SOC 203 Sociology of Gender (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 265 Critical Inquiry: Penny Lecture Series (2)  
 SOC 272 Introduction to Disability Studies (3)  
 SOC 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)  
 SOC 279 African Americans in Sport (3)  
 SOC 303 Professional Development (3)  
 SOC 305 Sociology of Globalization (3)  
 SOC 318 Sociology of Aging and the Life Course (3)  
 SOC 323 Social Justice and Change (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 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 487 Globalization, Social Justice and Human Rights (3)  
 SOC 490/590 Current issues in Sociology (1-3; max. 6)

## 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 in SPN)

**Note:** SPN 101, 102 Beginner's Course, SPN 111 Intensive Basic Spanish, SPN 201, 202 or 203 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)

#### Choose 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 Spanish Language and Hispanic Culture (3)

SPN 451/551 Studies in Spanish Narrative (3)

SPN 452/552 Studies in Spanish Poetry (3)

SPN 453/553 Studies in Spanish Theatre (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 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:

SPN 316 Intermediate Spanish Composition (3)

SPN 317 Business Spanish (3)

SPN 318 Introduction to Hispanic Film (3)

SPN 331 Spanish for Community Work (3)

SPN 342 Advanced Conversation (3)

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 370 Topics in Hispanic Studies (3)

SPN 381 Spanish Language and Hispanic Culture I (3)

SPN 382 Spanish Language and Hispanic Culture II (3)

or any 400-level SPN course

#### 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:**

ART 317 The Arts of Colonial Latin America (3)

ATH 305 Latin America: Anthropological Perspectives (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)

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 (3) (MPC)

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 or linguistics course in the English department

Students with specific needs can work out other plans of related hours with their advisors.

A second major substitutes for the 17 related hours.

Students seeking the Bachelor of Arts in Spanish meet the College of Arts and Science writing in the major requirement by completing SPN 315 and 490.

### 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 College of Education Health and Society chapter. For information, contact the Office of Student Services in the College of Education Health and Society, 202 McGuffey Hall (513-529-6418).

## 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 four courses:

#### SPA Pre-major courses: (12 hours)

SPA 127 Introduction to Communication Disorders (3)

SPA 222 Anatomy and Physiology Speech Production (3)

SPA 223 Theories of Language Development (3)

SPA 225 Neuroscience and Communication Behavior (3)

Students are accepted into the major after taking the four pre-major courses and if they have earned a cumulative GPA of 3.00 and a 3.00 in the SPA pre-major courses. No tests or interviews are required for consideration as a major student.

### SPA Required major courses: (22 hours)

SPA 316 Introduction to Audiology (3)

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 402 Counseling Strategies for Speech Pathologists and Audiologists (3)

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)**

BIO 161 Principles of Human Physiology (4)  
 EDL 204 Sociocultural Studies in Education (3)  
 EDP 201 Human Development and Learning in Educational Environments (3) **or**  
 PSY 111 Introduction to Psychology (4)  
 EDP 256 Psychology of the Exceptional Learner (3) **or**  
 EDP 272 Introduction to Disability Studies (3)  
 FSW 261 Diverse Family Systems Across the Life Cycle (3) **or**  
 FSW 281 Child Development (4)  
 PHY 131 Physics for Music (3) **or**  
 PHY 101 Physics and Society (3)  
 STA 261 Statistics (4)

**SPA elective courses:**

SPA 101 Beginning ASL I (4)  
 SPA 233 Perspectives of the Human Face (3)  
 SPA/DST 312 Deaf Culture: Global, National and Local Issues (3)  
 SPA 413 Senior Seminar in Communication Disorders (3)  
 SPA 416 Research Design (3)

## Statistics Bachelor of Science

For information, contact the Department of Statistics, 311 Upham Hall (513-529-7828).

All STA courses and all courses in the 12-hour section of the related hours, should be taken for grades, not credit/no-credit. In the STA courses, your GPA must be at least 2.00.

**Major in Statistics: Bachelor of Science**

The program requires at least 32 hours of STA courses at the 300-level or above.

**Introductory Statistics courses (at least one of these):**

STA 301 Applied Statistics (3)  
 STA 363 Introduction to Statistical Modeling (3)

**Statistics core courses (all of these):**

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)  
 STA 475 Data Analysis Practicum (3) MPC

**Statistics Electives (at least three):**

STA 333 Nonparametric Statistics (3)  
 STA 363 Introduction to Statistical Modeling (3)\*  
 STA 365 Statistical Quality Control (3)  
 STA 404 Advanced Data Visualization (3)  
 STA 427 Introduction to Bayesian Statistics (3)  
 STA 432 Survey Sampling in Business (3)  
 STA 467 Statistical Learning (3)  
 STA 483 Analysis of Forecasting Systems (3)  
 STA 484 Analysis of Categorical Data (3)

\*May be counted as an elective if credit has been earned for STA 301 and STA 363 is completed prior to taking STA 463.

Note: Many upper level STA courses have MTH 252, Calculus III, and MTH 222 or 333T, Linear Algebra, as a pre or co-requisite.

**Related Hours (choose one of the following lists):**

Actuarial Science: ECO 201, 202; ACC 221, 222; FIN 301  
 Accounting (MPT ACC 1): ACC 221, 222, 468, plus 3 hours of ACC at the 300 level or higher  
 Accounting (MPT 2): ACC 221, 222, 321, 422  
 Chemistry (MPT CHM 1): CHM 142, 145; 231 or 241, 244 or 251, 254; and 363, 364  
 Chemistry (MPT CHM 2): CHM 142, 145; 231 or 241, 244 or 251, 254; and 332 or 432 or 433  
 Economics (MPT ECO 3): ECO 201, 202, 317, 418 or 419  
 Physics (MPT PHY 1): PHY 182, 184, 281, 286, 293  
 Computer Science and Software Engineering (MPT CSE 2): CSE 174, 271, 252 or 274 or 283, and 3 hours above the 174 level  
 Computer Science and Software Engineering (MPT CSE 3): CSE 273, 372, 471, and 3 hours above the 174 level  
 Information Systems and Analytics (MPT ISA 3): ISA 235, 245, 404, and 414  
 Other: 12 or more hours approved by the Chief Departmental Advisor in Statistics

Note: The related hours requirement is waived for students who complete the requirements for a major, co-major, or minor outside of the Department of Statistics.

## 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 (4)

**Choose at least ONE of the following:**

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)  
 MME/MTH 495 Introduction to Applied Nonlinear Dynamics (3)

**Statistics courses. All of these:**

STA 301 Applied Statistics (3)  
 STA 401 Probability (3)  
 STA 463 Regression Analysis (4)

**Choose at least ONE of the following:**

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, 420, 422, 425 (MPC), 435 (MPC), 440, 442, 454, 470, 482 (MPC), 483, 486, 491, 492; STA 402, 427, 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 advisor *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 advisor.

**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 College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College 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 Proof: Introduction to Higher 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

For more information, please contact the Department of Media, Journalism, and Film, 120 Williams Hall.

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 Media, Journalism and Film.

### Program Requirements

(39 semester hours)

**Note:** At the time of publication this major is being revised.

The Strategic Communication major requires a second major or co-major. (This requirement may be satisfied by completing two minors. Students may petition to use a full-semester study abroad experience in place of a minor; the experience must include at least 15 credit hours in course work outside the field of media studies.)

### Foundation (12 hours)

#### All of these:

COM 259 Introduction to Strategic Communication and Public Relations (3)  
ENG/COM 208 Professional Communication (3) **or**  
COM 135 Introduction to Public Expression and Critical Inquiry (3)  
MAC 143 Introduction to Media (3)  
MAC 146 Media Aesthetics (3)

### Core (9 hours)

JRN 201 Reporting and News Writing I (3)  
COM 262 Empirical Research Methods (3)  
COM 359 Strategic Communication Planning (3)

### Theory & Contexts (9 hours):

#### Communication Theory (3), Take one of the following:

COM 339 Introduction to Organizational Communication (3)  
COM 336 Advanced Interpersonal Communication (3)  
COM 431 Persuasion Theory and Research (3)

#### Communication and Issues of Diversity (3), Take one of the following:

COM 436 Intercultural Communication (3)  
MAC 446 Media Globalization (3)  
MAC 461 Gender, Sexuality and Media (3)

#### Communication and Media Elective (3), Take one of the following:

COM 136 Introduction to Interpersonal Communication (3)  
COM 231 Small Group Communication (3)  
MAC 325 Social Media Cultures (3)  
COM 428 Communication in Conflict Management (3)  
COM 434 Nonverbal Communication (3)  
JRN/MAC 301 Journalism Law and Ethics (3)  
MAC 353 Audience Studies (3)  
MAC 443 Media Economics (3)  
MAC 445 Electronic Media Policy and Regulation (3)

### Creation and Practice (6 hours)

#### Advanced Writing Requirement (3), Take one of the following:

ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)  
ENG 412 Print and Digital Editing (3)  
ENG 315 Business Writing (3)  
ENG/IMS 407 Interactive Business Communication (3)  
ENG/IMS 416 Writing for Global Audiences (3)  
JRN 318 Advanced Storytelling in Journalism (3)  
JRN 350 Specialized Journalism (3)  
MAC 213 Writing for Media (3)

#### Advanced Media Practice Requirement (3), Take one of the following:

COM/JRN 340 Internship (1-16)  
ENG 411 Visual Rhetoric (3)  
IMS (any course at the 200-level or above)  
JRN 316 Editing and Design (3)  
MAC 462 Red Atlantic: Practicum in U.K. Media, Advertising & Public Relations (3)  
MKT 291 Principles of Marketing (3) (or another marketing class)

### Capstone (3)

#### Take one of the following:

COM 439 Advanced Organizational Communication (3)  
COM 459 Advanced Public Relations (3)  
IMS 440 Interactive Media Studies Practicum (4)  
MAC 414 Capstone Pictures: Project in Digital Narrative Film Production (4; maximum 8)

\*Note: Students seeking the Bachelor of Arts in Strategic Communication meet the College of Arts and Science writing in the major requirement by completing the following courses: COM 262 and COM 459.

## Sustainability Co Major

For more information, contact the Department of Institute of Environment and Sustainability, 254 Upham Hall, (513-529-5811).

The Sustainability 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 sustainability, especially those with design, management, and policy specializations. The term "co-major" indicates that students must complete another major at Miami University. The Sustainability 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.

### Program Requirements:

(38-48 semester hours)

**Complete a major in one of the divisions of the university.**

#### Introductory Experience (3)

*Required:*

IES 274 Introduction to Environment and Sustainability (3)

#### Foundations to Sustainability (10)

#### Ecological Dimensions (3)

#### Choose ONE of the following:

BIO 131 Plants, Humanity, and Environment (3)  
BIO 121 Environmental Biology (3)  
BIO 176 Ecology of North America (3)

### Physical Dimensions (3)

**Choose ONE of the following:**

GEO 121 Earth's Physical Environments (4)  
GLG 121 Environmental Geology (3) and  
GLG 115L Understanding the Earth (1)

### Social Dimensions (3):

**Choose ONE of the following:**

ARC 188 Ideas in Architecture (3)  
ATH 175 Peoples of the World (3)  
ECO 131 Economic Perspectives on Inequality in America (3)  
ECO 201 Principles of Microeconomics (3)  
GEO 101 Global Forces, Local Diversity (3)  
POL 261 Public Administration (4)

### Integrative Perspectives (21-22)

### Natural Resources & Ecosystems (9)

**Choose ONE of the following:**

BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)  
BIO 206 Evolutionary Biology (3)  
BIO 209 Fundamentals of Ecology (3)  
GEO 271 Human Dimensions of Natural Resource Conservation (3)

**Choose TWO of the following (6):**

BIO/MBI 333 Field Ecology (3)  
BIO/GEO 431 Global Plant Diversity (3)  
BIO/GEO 432 Ecoregions of North America (3)  
BIO 351 Environmental Education: Focus on Natural History (4)  
BIO 467 Conservation Biology (3)  
BIO 401 Plant Ecology (3)  
BIO 462 Environmental Toxicology and Risk Assessment (4)  
BIO 463 Limnology (4)  
CHM 491 Chemistry in Societal Issues (3)  
GEO 333 Global Perspectives on Natural Disasters (3)  
GEO 421 Climatology (3)  
GEO 425 Hydrogeography (3)  
GEO 428 Soil Geography (4)  
GLG 307 Water and Society (3)  
GLG 335 Ice Age Earth (3)  
GLG 408 Introduction to Hydrogeology (4)  
GLG 428 Groundwater Flow Modeling (4)  
GLG 482 Contaminant Hydrogeology (4)  
A workshop or one-time seminar on sustainability may be substituted with permission of advisor.

### Social Systems & Human Landscape (9)

**Choose ONE of the following (3):**

GEO 454 Urban Geography (3)

**Choose TWO of the following (6):**

ARC 406B Energy and Sustainability (3)  
ARC 406C Sustainable Design (3)  
ARC 413 Environmental Systems I (3)  
ATH 471 Ecological Anthropology (3)  
BWS 495 Modern African Environmental History (3)  
ECO 406 Environmental Economics (3)  
GEO 401 Sustainable Regions (3)  
GEO 451 Urban and Regional Planning (3)  
HST 397 American Environmental History (3)  
HST/LAS 437 Latin America Environmental History (3)  
IES 414 Latin American Environmental Affairs (3)  
IES 431 Principles and Applications of Environmental Science (3)  
IES 450 Environmental Law (3)  
PHL 376 Environmental Philosophy (4)  
POL 362 Public Management, Leadership, and Administrative Politics (3)  
POL 363 Administrative Law (3)  
POL 468 Public Personnel Administration (3)  
WGS/GEO 406 Indigenous Peoples and Their Sacred Lands (3)  
WGS/GEO 436 Women, Gender, and the Environment (3)  
A workshop or one-time seminar on sustainability may be substituted with permission of advisor

### Environmental Measures & Metrics (3-4)

**Choose ONE of the following:**

GEO 441 Geographic Information Systems (3)  
GEO 444 GIScience Techniques in Landscape Ecology (3)  
IES 411 Environmental Protocols (4)  
ISA 205 Business Statistics (4)  
STA 261 Statistics (4)  
STA 301 Applied Statistics (3)  
STA 475 Data Analysis Practicum (3)

### Project-Based Synthesis (3)

**Required:**

IES 474 Sustainability in Practice (3)

## 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.

**Choose 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 476 Global Poverty (3)  
GEO 492 Geography of the Auto Industry (3)  
Selected GEO 460 courses with permission of primary advisor.

#### Social issues.

**Choose ONE of the following:**

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 205 Population and Migration (3)  
GEO 455 Race, Urban Change and Conflict in America (3)  
GEO 458 Cities of Difference (3)  
GEO 462 Public Space (3)  
SOC 234 Historic Preservation (3)  
Selected GEO 460 courses with permission of primary advisor.

#### Administration and politics.

**Choose ONE of the following:**

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 Public Management, Leadership, and Administrative Politics (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) or  
GEO 242 Mapping a Changing World (3)  
STA 261 Statistics (4) or  
ISA 205 Business Statistics (4)

#### Other tools.

**Choose ONE of the following:**

GEO 437 Regional Land Use Capability Analysis (3)  
GEO 441 Geographic Information Systems (3)  
GEO 442 Advanced Geographic Information Systems (3)  
GEO 443 Python Programming for ArcGIS (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 advisor.

**Choose ONE of the following capstones:**

GEO 491 Senior Seminar (4)  
GEO 493 Urban Field Experience (3)

#### 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 advisor.

Students seeking the Bachelor of Arts in Urban and Regional Planning meet the College of Arts and Science writing in the major requirement by completing the following courses: GEO 201, 451, and either GEO 491 or 493.

## Women's, Gender, and Sexuality Studies Bachelor of Arts

For information, contact the Women's, Gender, and Sexuality 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, Gender, and Sexuality 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, Gender, and Sexuality 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, Gender, and Sexuality 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, Gender, and Sexuality 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.

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, education, or communication.

### Departmental Honors

To receive departmental honors you must complete WGS 470 (3 credit hours), register for one additional credit of WGS 470 which entails the completion of a special project, and have a cumulative GPA of 3.50 in the major. Students must register their intent to pursue departmental honors and file a proposal for their project in the WGS program office, 126 MacMillan.

### Program Requirements (30-31 semester hours)

#### Core Courses (15-16 semester hours)

##### All three of these:

WGS 201 Introduction to Women's Studies (3)  
 WGS/AAA/AMS/BWS/LAS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)  
 WGS 301 Women and Difference: Intersections of Race, Class, and Sexuality (3)

##### Choose ONE theory course from the following:

WGS/PHL 355 Feminist Theory (3)  
 WGS/ENG 368 Feminist Literary Theory and Practice (3)  
 WGS/ENG 435 Queer Theory (3)  
 WGS/BWS/ENG 437 Black Feminist Theory (3) or  
 a feminist theory course approved by a WGS advisor

##### Choose ONE of the following capstones:

WGS 401 The Role of Women in a Transforming Society (3)  
 WGS/BWS/ENG 432 Feminism and Diaspora: U.S. Women of Color (3)

#### Focus Area (15 semester hours)

The Women's, Gender, and Sexuality Studies major requires at least 15 additional semester hours of WGS or WGS cross-listed courses. A maximum of 6 semester hours, taken 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 toward one's additional 15 hours.

Students seeking the Bachelor of Arts in Women's, Gender and Sexuality Studies meet the College of Arts and Science writing in the major requirement by completing the following course/s: WGS/AAA/AMS/BWS/LAS 211 and either WGS 432 or 401.

## Zoology Bachelor of Arts, Bachelor of Science

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

### Program Requirements: Bachelor of Arts (32 semester hours)

#### Core Courses (8 hrs)

BIO 113 Animal Diversity (4) or  
 BIO/MBI 115 Biological Concepts (4)  
 BIO 114 Principles of Biology (4) or  
 BIO/MBI 116 Biological Concepts (4)

#### Advanced courses requirement (24 hrs)

The remaining 24 semester hours must be in Biology courses 200 level or above. Eligible courses are: BIO 201, 203, 206, 207, 209, 255, 256, 277, 305, 311, 312, 320, 333, 340, 342, 351, 361, 364, 377, 395, 400, 405, 407, 408, 409, 410, 411, 419R, 422, 424, 432, 435, 443, 444, 449, 452, 453, 454, 457, 458, 459, 462, 463, 464, 465, 466, 467, 469, 471, 477, 481, 482, 483, 485, 491, 496, 497, 498; IES 275. No more than three semester hours of independent study courses (e.g., BIO 277, 320, 340, 377, 419R, 477) can be used.

#### No specific courses are required, but these are recommended:

BIO 203 Introduction to Cell Biology (3)  
 BIO 209 Fundamentals of Ecology (3)  
 BIO 305 Human Physiology (4)  
 BIO 342 Genetics (3)

One 400-level course recommended.

#### Related Hours (18 required)

#### One year of chemistry:

CHM 141 or 141R, 142 College Chemistry (3, 4, 3) and  
 CHM 144, 145 College Chemistry Laboratory (2, 2)

Remaining courses may be chosen from 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.

#### Writing in the Major

To ensure that all students in the zoology major complete the College of Arts and Science Writing Requirement and become experienced and proficient writers in the discipline, each student must show evidence of proficiency in both of the following two writing genres:

1. Popular science writing for a non-specialist audience. To fulfill this requirement, students must successfully complete two W Zoology courses at the 200- or 300- level which provide writing experience in the genre of popular science writing for a non-specialist audience.
2. Technical science writing for a specialist audience. To fulfill this requirement, students must successfully complete at least one of the following two technical writing tracks:
  - a) A student may opt to complete one Zoology W course at the 400-level which provides writing experience in the genre of technical science writing for a specialist audience.
  - b) A student may opt to complete an independent study which provides writing experience in the genre of technical science writing for a specialist audience. Students choosing this track should have their proposed writing experience evaluated by the departmental representative for writing in the major at the time they initiate their independent study. Upon completion of an independent study, each student must submit, with the signed support of a faculty member, a letter of certification indicating that s/he has successfully completed the technical science writing requirement.

### Program Requirements: Bachelor of Science (36 semester hours)

#### All of these:

BIO 113 Animal Diversity (4) or  
 BIO/MBI 115 Biological Concepts (4)  
 BIO 114 Principles of Biology (4) or  
 BIO/MBI 116 Biological Concepts (4)  
 BIO 203 Introduction to Cell Biology (3)  
 BIO 209 Fundamentals of Ecology (3)  
 BIO 305 Human Physiology (4)  
 BIO 342 Genetics (3)

#### Advanced courses requirement

At least one 400-level course plus additional advanced Biology courses (200 level and above) in the following list to total 36 hours. Eligible courses are: BIO 201, 203, 206, 207, 209, 255, 256, 277, 305, 311, 312, 320, 333, 340, 342, 351, 361, 364, 377, 395, 400, 405,

407, 408, 409, 410, 411, 419R, 422, 424, 432, 435, 443, 444, 449, 452, 453, 454, 457, 458, 459, 462, 463, 464, 465, 466, 467, 469, 471, 477, 481, 482, 483, 485, 491, 496, 497, 498; IES 275. No more than three hours of independent study courses (e.g., BIO 320, 340, 277, 377, 419R, 477) can be used.

**Related Hours** (48 required)

**All of these:**

CHM 141 or 141M or 141R, 142 College Chemistry (3, 4, 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) and PHY 173 and 174 Physics Laboratory (1, 1) **or**

PHY 181, 182 The Physical World (4, 4) and 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:** chemistry, geography, geology, mathematics (200 level or above), microbiology, physics, psychology, statistics (200 level or above), computer science and software engineering, IES 431.

## 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 GPA 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 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 GPA 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 432 National Security Forces in Contemporary American Society (3)

**Choose ONE of the following:**

AES 331 Air Force Leadership Studies (3)

AES 332 Air Force Leadership Studies (3)

MGT 291 Organizational Behavior and Theory (3)

NSC 211 Leadership and Management (3)

**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) (1)

HST 222 U.S. Foreign Relations Since 1898 (3)

HST 224 Africa to 1884 (3)

HST 225 The Making of Modern Africa (3)

HST 296 World History Since 1945 (3)

HST/BWS/LAS 385 Race, Science, and Disease in the Americas (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 333 Politics of Western Europe (4)

POL 334 Politics of Eastern Europe (3)

POL 335 Politics of East Asia (4)

POL 336 Politics of the Middle East (3)

POL 337 Politics of Latin America (4)

POL 338 Contemporary African Politics (3)

POL 339 Arab Nationalism In World Politics (3)

POL 373 American Foreign Policy (3)

POL 374 Foreign Policy Analysis (3)

POL 382 International Law (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 GPA 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)

**Choose at least ONE of the following:**

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 (3)  
 PHL 375 Medical Ethics (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 GPA 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)

**Choose TWO of the following:**

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 476 Environment and Aging (3)  
 GTY 478 Racial/Ethnic Disparities in Chronic Illness (4)

## American Studies

(18 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, communication, education, fine arts and science; it also complements well-established liberal arts fields such as political science, English, history, sociology, and psychology. Focusing broadly on American culture and society in global context, the minor fosters critical and creative thinking, intercultural awareness, 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 social, 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 Cultures (3)  
 AMS 206 Approaches to American Culture (3)  
 AMS 301 American Identities (3) **or**  
 AMS 302 Transnational America (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 advisor and formally declare this minor. A minimum GPA 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)

**Choose TWO of the following:**

ATH 212 Introduction to Archaeological Theory and Methods (4)  
 ATH 231 Foundations of Cultural Anthropology (4)  
 ATH 255 Foundations of Biological Anthropology (4)  
 ATH 265 Introduction to Linguistic Anthropology (4)

**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

(18-19 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 153, 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 GPA 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 153 Sociology in a Global Context (3)  
 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 (4)  
 SOC 260A Internship: An Introduction to Applied Sociology and Human Services (1-4) **or**  
 SOC 440A Applied Field Experience (4-16)

## Arabic

(18 semester hours)

For information, contact the program advisor in the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 172 Irvin Hall (513-529-2526).

The Arabic minor provides systematic Arabic language training in the four modalities (speaking, listening, writing, and reading) as well as cultures of the Arabic speaking world. A minimum GPA of 2.50 is required for courses taken at Miami. Courses for the Arabic minor must be taken for a grade (not credit/no credit). Study abroad in Miami's summer program at the Jordan University or other program is recommended.

### Program requirements:

ARB 201 Intermediate Modern Arabic (3)  
ARB 202 Intermediate Modern Arabic (3)  
ARB 230 Topics in Arabic Literature in Translation (3)  
ARB 301 Advanced Arabic (3)  
ARB 302 Advanced Arabic (3)  
ARB 311 Media Arabic (3)

## Asian/Asian American Studies

(18 Semester Hours)

For information contact the Asian/Asian American Studies Program, 115 Irvine Hall (513-529-8663).

The Asian/Asian American Studies (AAA) minor provides a critical understanding of political-economic relations, historical and socio-cultural formations, ethno-linguistic and religious practices, and literary and artistic representations regarding Asia and communities of Asian descent in the U.S. and in the diasporas. By deploying a transnational and transcultural approach the AAA minor moves beyond the object-oriented area studies model and the nationalistic identity politics paradigm. With a focus on issues of sameness and difference and by paying particular attention to different forms of discursive expression and political transformation its innovative course of study brings together the study of Asia and Asian America through a critical and comparative lens.

### Program Requirements:

#### Foundation Course (3 hours):

AAA 201 Introduction to Asian/Asian American Studies (3)

#### Core Courses (6 hours):

AAA/REL 203 Global Religions of India (3)  
AAA 207 Asia and Globalization (3)  
AAA/ENG 350E Asian/Asian American Cinema (3)  
AAA/ENG/WGS 351 Cultural Politics of Gender and Sexuality in Asian/America (3)

#### Capstone (3 hours):

AAA 410 Topics in Asian/Asian American Studies (3)

#### Related Courses (6-8 hours):

**Two Courses: Choose one from each of two of the following thematic clusters:**

#### Thematic Cluster A: Comparative Perspective:

AAA/SOC/FSW 363 Sociology of Families (3)  
ENG 348 Ethnic American Literatures (3)  
HST 434 China along the Silk Road before 1600 (3)  
KNH 499P Health and Culture – US and Asia\*  
POL 326 Comparative Ethnic Politics (3)

\* This is a summer workshop and it carries 5 credit hours.

#### Thematic Cluster B: Cultural Analysis and Political Economy:

GEO 308 Geography of East Asia (3)  
POL 328 Politics of Central Asia (3)  
POL 335 Politics of East Asia (4)  
POL 375 International Relations of East Asia (3)

#### Thematic Cluster C: Transnational & Transcultural Expressions in Art, Literature, and Religion

AAA/ENG 369 Colonial and Postcolonial Literature (3)  
AAA/ENG 470E Studies in Literary Theory: Food and Power (3)  
ENG/AMS 248 Asian American Literature (3)  
WGS/BWS/ENG 432 Feminism and the Diaspora: U.S. Women of Color (3)

## Black World Studies

(21 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. It focuses on changing constructions of race, class, and gender in local and global contexts. 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 GPA of 2.00 is required for all courses in the minor.

### Program Requirements

#### Take either one of these:

BWS 151 Introduction to Black World Studies (4)  
BWS 156 Introduction to Africa (4)

**Take a minimum of one course from Areas A, B, C or D:**

#### Area A. African Experiences and Cultures

##### Choose one of the following:

ART/BWS 235 The Gods Are Here (3)  
ART 480 Seminar in African Art (3)  
ATH 329 Religions of Africa (3)  
BIO 496 Biodiversity of Kenya (6)  
BWS/GEO 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 341 East African History (3)  
BWS 342 Africa Since 1945 (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

##### Choose one of the following:

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/REL 343 African-American Religions (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)  
AMS/MUS 135 Understanding Jazz, Its History and Context (3)  
AMS/MUS 285 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

##### Choose ONE of the following:

BWS/FST/LAS/MUS/POR 204 Brazilian Culture Through Popular Music (3)  
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 & Diasporas (3)

GEO 473 Development and Underdevelopment (3)  
 GEO 475 Global Periphery's Urbanization (3)

#### Area D. Perspectives on Gender, Race, Class, and Ethnicity

##### Choose ONE of the following:

BWS/CLS 222 Race and Ethnicity in Antiquity (3)  
 BWS/HST 243 History of the Atlantic Slave Trade, 1400s to 1800s (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/WGS 432 Feminism and Diaspora (3)  
 BWS 370I/AMS 310I Race and Popular Culture in the US (3)  
 BWS/HST 386 Race in U.S. Society (3)  
 BWS/ENG/WGS 437 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 Race, Ethnicity & Aging (3)  
 POL 326 Comparative Ethnic Politics (3)  
 PSY 325 Psychology of Prejudice and Minority Experience (3)  
 SOC 372 Social Stratification (3)  
 SOC 490 Critical Race Theory  
 WGS 370A Black Women Writers (3)

##### Other courses:

All BWS courses and courses cross-listed with BWS may be used for the remaining hours. Courses, not cross-listed with BWS, and special topic courses and selected honors seminars are offered most semesters. These may be approved by the director of Black World Studies for the minor.

## Chinese

(18 semester hours)

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 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 GPA. Courses taken on a credit/no-credit basis may not be applied to the minor.

#### Program Requirements

##### Choose FOUR of the following (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 311 Business Chinese I (3)  
 CHI 312 Business Chinese II (3)  
 CHI 330 Chinese Verbal Theatre Performance (3)  
 CHI 401 Fourth Year Chinese (3)  
 CHI 402 Fourth Year Chinese (3)

##### Choose TWO of the following (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 257 Chinese Satire (3)  
 CHI 264 Chinese Cinema and Culture (3)  
 CHI 271 Chinese Culture Live (1-3)  
 CHI 311 Business Chinese I (3)  
 CHI 312 Business Chinese II (3)  
 CHI 330 Chinese Verbal Theatre Performance (3)  
 CHI 401,402 Fourth Year Chinese (if not used for language hours) (3, 3)  
 JPN 255 Drama in China and Japan in English Translation (3)

NOTE: Courses listed in both group A and B can be used only once to fulfill any minor's requirement.

The Chinese minor satisfies the Thematic Sequence requirement of the Miami Plan.

## 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 GPA is required for all courses in the minor. These courses must be taken for a grade, not credit/no-credit.

#### Program Requirements

##### Choose TWO of the following:

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, 218, 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 216, 222, 232, 235, 244, 310I, 321, 361; 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 GPA 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)

## Creative Writing

(18 semester hours)

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

This minor offers students a chance to use their elective hours to satisfy a personal interest, to strengthen their degree, or to enhance their career opportunities. It explores intersections between creative practice and critical practice through your own Fiction, Creative Nonfiction, Poetics, Screenwriting, Graphic Narratives and Digital Literature. Students transform their ideas into polished final products with the support of peers and faculty. This minor is open to all majors except English: Creative Writing.

## Program Requirements

### Required course:

ENG 226 Introduction to Creative Writing: Short Fiction and Poetry (3)

### Choose One:

ENG 320 Intermediate Creative Writing: Fiction (3)

ENG 330 Intermediate Creative Writing: Poetry (3)

ENG 323 Creative Non-Fiction (3)

### Choose Four:

(A maximum of one course at the 100-level. A minimum of two courses at the 300-400-level)

ENG 123 Introduction to Poetry (3)

ENG 124 Introduction to Fiction (3)

ENG 213 Writing for Media (3) (permission of instructor required)

ENG 231 The Short Story (3)

ENG 259 Modern World Novel (3)

ENG 261 Modern Drama (3)

ENG 281 The English Novel (3)

ENG 283 Modern Poetry (3)

ENG 293 Contemporary American Fiction (3)

ENG 311 Contemporary Fiction (3)

ENG 312 Contemporary Poetry (3)

ENG 314 Playwriting (4) (permission of instructor required)

ENG 320 Intermediate Creative Writing: Fiction (3)

ENG 323 Creative Non-Fiction (3)

ENG 330 Intermediate Creative Writing: Poetry (3)

ENG 420 Advanced Creative Writing: Fiction Workshop (3) (prerequisite 320)

ENG 430 Advanced Creative Writing: Poetry Workshop (3) (prerequisite 330)

ENG 422 Creative Writing: Screenwriting (3)

## Crime, Law, and Social Justice Studies

(19-20 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

The Minor in Crime, Law & Social Justice Studies (SJS) offers a sociologically-based foundation of knowledge and skills to examine the essential connections between social norms, their transgression, and efforts to maintain justice in the criminal justice and juridical spheres.

### Program Requirements:

#### All of these:

SJS/SOC 165 Introduction to Social Justice Studies (3)

SOC/SJS 323 Social Justice and Change (3)

SOC 352 Criminology (3)

#### Choose ONE of the following:

SOC 201 Social Problems (4)

SOC 202 Social Deviance (4)

#### Choose TWO of the following:

SOC/BWS 348 Race and Ethnic Relations (3)

SOC 409 Systems of Justice (3)

SOC 410 Topics in Criminology (3)

SOC 412 Sociology of Law (3)

SOC 413 Juvenile Delinquency (3)

SOC 440C Field Experience in Sociology (4-12)

SOC/FSW 451 Family Violence (3)

## Criminology

(19-50 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 enroll regardless of their major course of study.

## Program Requirements

Select track one or track two for your program.

**Track one: For the non-sociology major (19-20 semester hours)**

### Required. All of these in this order:

SOC 151 Social Relations (4) or

SOC 153 Sociology in a Global Context (3)

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.

### Choose ONE of the following:

SOC 410 Topics in Criminology (3)

SOC 413 Juvenile Delinquency (3)

### Electives. Minimum three semester hours from the following:

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 (49-50 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 49-50 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, 201 Laws Hall (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 The Analysis of Play (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 Art and Digital Tools II (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 Art and Digital Tools I (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:

EDP 489 Disability in Global and Local Contexts (3) **or**  
COM/ENG/SOC/SPA 494 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)  
ENG 245 Rhetoric of Disability Rights (3)  
DST/EDP/SOC/WGS 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)  
DST/SPA 312 Deaf Culture: Global, National and Local Issues (3)  
SPA 211 Deaf Culture and Community (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/WGS 375 (Dis)ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)  
COM/DST/EDP/SOC/WGS 378 Media Illusions: Creations of "The Disabled" Identity (3)  
FSW 381 Parent-Child Relations in Diverse Families (3)

## East Asian Studies

(18 semester hours)

For information, contact the program advisor in the Department of Geography, 235 Shideler Hall, (513-529-5558).

This interdisciplinary minor 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, Japanese or Korean. Completion of CHI 202, JPN 202 or KOR 202 higher level of courses will fulfill this requirement. Contact the program advisor 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 History of Asian Art, China, Korea, and Japan (3)  
ART 278 Text and Image in East Asian Buddhist Art (3)  
ART/JPN 279 Buddhism and Culture: China and Japan (3)  
CHI 251 Chinese Literature to 1800 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 257 Chinese Satire (3)  
CHI/JPN 255 Dramas in Japan and China in Translation (3)  
CHI/FST 264 Chinese Cinema and Culture (3)  
CHI 271 Chinese Culture Live (1-3)  
GEO/ITS/SOC 208 The Rise of Industrialism in East Asia (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)

#### Related Courses

ART 185 India and Southeast Asia (3)  
PHL 106 Thought and Culture of India (3)

#### Group II (300-400 level)

Twelve semester hours from East Asia, China, or Japan; **OR** from a combination of East Asia, China, Japan, AND one Related course.

#### East Asia

GEO 308 Geography of East Asia (3)  
GEO 408 Geography of the Silk Road (3)  
POL 335 Politics of China and Japan (3)  
POL 375 International Relations of East Asia (3)

#### China

ART 311 Chinese Painting History (3)  
CHI 301 Third Year Chinese (3)  
CHI 311 Business Chinese I (3)  
CHI 330 Chinese Verbal Theatre Performance (3)  
GEO 410B Regional Analysis of China (1-4)  
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)

#### Japan

ART 312 Japanese Painting and Prints (3)  
HST 356 Modern Japanese History (3)  
JPN 301 Third Year Japanese (3)

#### Related course:

AAA/ENG 369 Colonial and Post-Colonial Literatures of South Asia (3)  
POL 328 Politics of Central Asia (3)  
REL 223 Introduction to Buddhism (3)

Other courses, including one-time offerings, and honors and summer workshop courses may count toward this minor. For approval, contact the program advisor.

## 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 GPA.

### 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 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 advisor, and you must check your progress with the advisor 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 GPA is required for all courses in the minor. This minor is open to all majors except English: Literature.

### Program Requirements

#### Required course:

ENG 298 Introduction to Literary and Cultural Studies (3)

#### Additional credit hours from any of the following courses:

ENG 122, 123, 124, 125, 131, 132, 133, 134, 141, 142, 143, 144, 161, 162, 163, 165, 220, 221, 230, 231, 232, 233, 237, 246, 248, 251, 252, 254, 259, 261, 262, 271, 281, 282, 283, 293, 327, 328, 331, 334, 335, 336, 337, 338, 339, 342, 343, 344, 345, 347, 348, 349, 350, 352, 353, 354, 355, 368, 369, 370, 372, 373, 390, 435, 440, 450, 468, 470, 490.

At least one course must be a 400-level seminar.

No more than two courses can be at the 100-level.

## Ethics, Society, and Culture

(19 semester hours)

For information, contact the Department of Philosophy, 212 Hall Auditorium (513-529-2440).

This minor offers students not majoring in philosophy an opportunity to pursue philosophical questions concerning ethics, culture, and society -- what it means to live in the world with others. Students wishing to sign up for the minor should register their interest with the chief departmental advisor. A minimum 2.00 GPA is required for all courses in the minor, and courses must be taken for a grade, not credit/no credit.

### Program Requirements

#### One of the following:

PHL 103 Society and the Individual (3)  
PHL 105 Theories of Human Nature (3)  
PHL 131 Introduction to Ethics (3)

#### FOUR of the following:

PHL 241 Philosophy of Art (3)  
PHL 311 Ethical Theory (4)  
PHL 331 Political Philosophy (3)  
PHL 335 Philosophy of Law (4)  
PHL 355 Feminist Theory (3)  
PHL 360A Confronting Death (4)  
PHL 375 Medical Ethics (4)  
PHL 376 Environmental Philosophy (4)  
PHL 411 Advanced Ethical Theories (4)  
PHL 470 Advanced Aesthetics (4)

## European Area Studies

(18 semester hours)

For information, contact the European Area Studies advisors in 168 or 250 Irvin Hall (513-529-1539 or 513-529-1854).

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 GPA 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

#### Choose ONE of the following:

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 Advisor 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 advisor.

## Film Studies

(18 semester hours)

For information, contact program advisor in the Department of Media, Journalism and Film, 140 Williams Hall (513-529-3526).

This interdepartmental minor features courses that treat film as a major art form or that use film as a specific and unique analytical device in the study of different aspects of society and culture, including literature, history, the arts, and nationality. It offers a broad introduction to the importance and influence of film, a variety of film studies methodologies, and the history and criticism of cinematic modes around 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 the following:

ENG/COM 422 Creative Writing: Screenwriting (3)  
FST/ATH 135 Film as Ethnography (1)  
FST/MAC 146 Media Aesthetics (3)  
FST/MAC/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/AMS/ITL 222 Italian American Culture (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/FRE/GER 255 Visual Representations of the Holocaust (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/RUS 272 Cultures and Identities of Eastern Europe: An Introduction through Literature and Film (3)  
FST/MAC 282 Sexualities and Film (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/POR/WGS 383 By or About (Afro-) Brazilian Women (3)  
FST/FRE 460 Topics in French Cinema Study (3)  
PHL 241 Philosophy of Art (3)  
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 GPA. 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 advisor.

## Geography

(18 semester hours)

For information, contact the Department of Geography, 216 Shideler Hall (513-529-5010).

In the minor students explore interactions between people, places, and environments, integrating social and natural sciences to understand global issues and address them locally. Geography minors learn diverse methods, like geospatial analysis, for studying and managing human and environmental change.

A minimum 2.00 GPA 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.

### Program Requirements

#### Foundation Human (3 hours):

GEO 101 Global Forces, Local Diversity (3) **or**  
GEO 111 World Regional Geography: Patterns and Issues (3)

#### Foundation Physical (3 hours):

GEO 121 Earth's Physical Environments (4) **or**  
GEO 122 Geographic Perspectives on the Environment (3)

#### Connecting Geographic Patterns and Processes (6-7 hours):

*Choose one course from two different areas below.*

#### Integrating Human and Physical Processes (3 hours):

GEO 211 Global Change (3)

#### People and Places (3 hours):

GEO 201 Geography of Urban Diversity (3) **or**  
GEO 205 Population and Migration (3) **or**  
GEO 276 Geography of the Global Economy (3)

#### Environmental Principles and Processes (3 hours):

GEO 211 Global Change (3)  
GEO 271 Human Dimensions of Natural Resource Conservation (3) **or**  
IES 275 Principles of Environmental Science (3) **or**  
IES 274 Introduction to Environment and Sustainability (3)

#### Geovisualization and Mapping (3 hours):

GEO 241 Map Interpretation (3) **or**  
GEO 242 Mapping a Changing World (3)

#### Regions (3-4 hours):

GEO 208 The Rise of Industrialism in East Asia (3) **or**  
GEO 301 Geography of Sub-Saharan Africa (4) **or**  
GEO 307 Geography of Central and Eastern Europe, and Russia (3) **or**  
GEO 308 Geography of East Asia (3) **or**  
GEO 311 Geography of Europe (3) **or**  
GEO 406 Indigenous Peoples and Their Sacred Lands (3) **or**  
GEO 408 Geography of the Silk Road (The Heart of Asia) (3) **or**  
A study away, study abroad or summer workshop experience approved by advisor.

#### Specializations

Students must complete 6 credit hours in GEO courses at the 300 level or above, of which at least 3 hours must be completed at the 400 level or above. Students are encouraged to consult with their advisor and review departmental publications for suggested specialization courses that align with each student's interests and post-graduation plans. The following topics of specializations are available: urban geography, physical geography, environmental geography and planning, development geography, and geospatial technology.

## Geology

(18 semester hours)

For information, contact the Department of Geology & Environmental Earth Science, 114 Shideler Hall (513-529-3216).

A minimum GPA 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

#### Choose ONE of the following:

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)

#### Electives: (14 hrs)

Any combination of Geology courses at the 200-level or above from the following list:

GLG 201 Mineralogy (4)  
GLG 204 Survival on an Evolving Planet (4)  
GLG 211 Chemistry of Earth Systems (3)  
GLG 217 Planetary Geology (3)  
GLG 244 Oceanography (3)  
GLG 261 Geohazards and the Solid Earth (3)  
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 (4)  
GLG 357 Igneous/Metamorphic Petrology (4)  
GLG 401 Global Climate Change (3)  
GLG 402 Geomicrobiology (3)  
GLG 408 Introduction to Hydrogeology (4)  
GLG 411A Field Geology (6)  
GLG 427 Isotope Geochemistry (3)  
GLG 428 Groundwater flow modeling (4)  
GLG 432 Powder X-Ray Diffraction and Clay (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 474 Paleobotany, Paleoecology, Paleoclimatology (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)

In addition, students may apply to the minor a maximum of three credits from any Geology workshop with the approval of the CDA.

## German

(18 semester hours)

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 172 Irvin Hall (513-529-2526).

All German courses (except those offered only credit/no credit) must be taken for a grade. You must coordinate your program with a department advisor. This minor consists of courses above the 100 level.

### Program Requirements

#### Choose one course from each group:

##### Language skill

GER 301 German Language through the Media (3)

##### Literature

GER 311 Passionate Friendships in German Literature and Culture (3)  
GER 312 Coming of Age in German Literature and Thought (3) (*taught in English translation*)

##### 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)

#### Advanced Study

One GER course at 400 level or higher (3)

#### Also required:

One three-hour GER course taught in translation may be taken toward the minor, except FRE/GER 212; GER/ATH 309/ENG/SPN 303.

## 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 GPA 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)

#### Choose ONE of the following:

GTY 260 Global Aging (3)  
GTY/SOC 318 Sociology of Aging and the Life Course (3)  
GTY/BWS 472 Race, Ethnicity and Aging (3)

#### Choose TWO of the following:

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/WGS 463 Gender and Aging (3)  
GTY/FSW 466 Families in Later Life (3)  
GTY 476 Environment and Aging (3)  
GTY 485 Long Term Care in an Aging Society (3)  
SOC 435 Sociology of Death (3)

## Global Health Studies

(18 semester hours)

For information, contact the Department of Anthropology, 120 Upham Hall (513-529-8399).

This transdisciplinary minor is for students interested in better understanding the complexities of global health and developing the necessary collaboration and research skills to work towards addressing global health problems, and is designed to complement a variety of student majors. Courses are designed to be taken in sequence. The minor can be completed in two years, including the required immersion experience.

### Program Requirements:

#### Complete the following courses:

GHS 101 Introduction to Global Health (3)  
GHS 201 Data and Decisions in Global Health (3)  
GHS 301 Seminar in Global Health (1)  
A required preparatory course for the Immersion Experience (3-4 credits, see below)\*  
GHS 401 Global Health Immersion Experience (2)

#### Complete one of the following capstone options:

##### Capstone Option 1:

ATH 448 Developing Solutions in Global Health (3)  
GHS 491 Global Health Leadership (1)

##### Capstone Option 2:

GHS 477 Independent Studies (minimum 4 credit hours total, may be taken over multiple semesters): This is a thesis opportunity to conduct original global health research in collaboration with a Global Health faculty member.

#### Required Preparatory Course:

Approved by GH Advisor & completed prior to immersion experience so that students are better prepared for that experience. For the preparatory course, students should identify courses on campus that offer the skills and/or background knowledge needed so that they can best appreciate and take advantage of opportunities during the off-campus immersion experience. For example, a preparatory course could be a language course, a regional history or political science course, a course in urban development, water technologies, or

community development depending on the objectives and focus of the immersion experience.

## Global Perspectives on Sustainability

(19 semester hours)

For information, contact the Institute for the Environment and Sustainability, 254 Upham 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)

BIO 131 Plants, Humanity, and the Environment (3)  
GEO 271 Human Dimensions of Natural Resource Conservation (3)  
GLG 121 Environmental Geology (3)  
GLG 307 Water and Society (3)  
IES 275 Principles of Environmental Science (3)

##### Category II: Business (minimum of three hours)

ECO 201 Principles of Microeconomics (3)  
ECO 202 Principles of Macroeconomics (3)  
ECO 406 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)

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 495, 496; ITS 302; POL 335, 336, 337, 338, 346, 378, 386; BIO 467

#### Field courses or internship (minimum of four hours)

## History

(18 semester hours)

For information, contact the Department of History, 200 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 GPA 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).

This minor offers students not majoring in philosophy the opportunity to explore the history of Western thought from Ancient philosophy to the present, and allows students to grasp the origin of fundamental concepts and their historical transformation. Students wishing to sign up for the minor should register their interest with the chief departmental advisor. The department occasionally offers courses in special topics appropriate to this minor. These may be substituted by petition for any course listed in the last 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 the following. 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)

## Horticulture

(18 semester hours)

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

This minor gives you a general understanding of horticulture and related fields.

Courses used for this minor cannot be used for the minor in Plant Biology or Plant Biotechnology, except for BIO 115, 116, or 191. Only 10 credit hours may count in both the horticulture minor and the A.B. or B.S. in Botany or Biology. Advanced courses must represent at least 10 hours of the total of 18 hours. College chemistry and BIO 191 are recommended for this minor. A minimum 2.00 GPA is required for all courses in the minor; no courses for the minor may be taken credit/no-credit.

### Program Requirements

#### Choose at least one of the following:

BIO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
BIO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
BIO 126 Evolution: Just a theory? (3)  
BIO 131 Plants, Humanity, and Environment (3)  
BIO 155 Field Botany (3)  
BIO 176 Ecology of North America (3)  
BIO 181 Medicinal and Therapeutic Plants (3)  
BIO 191 Plant Biology (4)

#### Take this course:

BIO 306 Basic Horticulture (3)

#### Choose at least one of the following:

BIO 221 Plant Propagation (4)  
BIO 241 Botanical Principles in Landscape Gardening (3)  
BIO 244 Viticulture and Enology (3)

#### Choose additional hours from the following:

BIO 302 Plant Taxonomy (4) or  
BIO 205 Dendrology (4)  
BIO 314 Plant and Fungal Diversity (4)  
BIO 340 Internship (1-16)  
BIO 425 Environmental Plant Physiology (4)

## Individualized Studies

For information, contact the Western Department 513-529-2233.

The minor in Individualized Studies is available to students in all majors and is designed to broaden their educational experience and widen professional opportunities. The pair of required WST courses teach students to integrate knowledge from a range of disciplines and perspectives. These serve as an introduction to student exploration of individually-created themes that have captured their interests through courses offered by other programs and majors. Plan of study for each student must be approved by Western Program advisor.

### Program Requirements

WST 201 Self and Place (3)

WST 301 Interdisciplinary Problems and Questions (3)

4 additional courses at 200-400 level (each 3 cr), with not more than one at the 200-level, that explore individualized theme approved by Western Program advisor. At least 3 of the 4 courses must be taken after approval of the plan of study.

## 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 GPA 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 commercialization, interpretation, simulation and visualization. There is also a self-designed option (with advisor approval).

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):

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)  
IMS 254 Design Principles Applied (3)  
IMS 257 Web Interaction Programming (3)

#### 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)  
IMS 333 Digital Innovation and Entrepreneurship (3)  
IMS 355 Principles and Practices of Managing Interactive Projects (3)  
IMS 390C Topics in IMS: Commercialization  
IMS 413 Usability and Digital Media Design (4)  
IMS 414 Web and Social Media Analytics (3)  
IMS 418 Social Media Marketing and Online Community Management (3)  
IMS /MKT 419 Digital Branding (3)  
MAC 211 Introduction to Video Production (4)  
MGT 311 Project Management (3)

#### 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 411 Visual Rhetoric (3)  
IMS 211 The Analysis of Play (3)  
IMS 212 The Design of Play (3)  
IMS 222 Web and Interaction Design (3)  
IMS 390I Topics in IMS: Interaction  
IMS 407 Interactive Business Communication (3)  
JRN/IMS 303 Online Journalism (3)  
MUS/IMS 221 Music Technologies (3)

MUS 303/IMS 304 Electronic Music (3)

#### **Simulation**

IMS/ARC 404Y Mind and Medium (3)  
 IMS 211 The Analysis of Play (3)  
 IMS 212 The Design of Play (3)  
 IMS 225 Games and Learning (3)  
 IMS 253 Building Interactive Objects (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: Simulation

#### **Visualization**

IMS 222 Interaction Design (3)  
 IMS 253 Building Interactive Objects (3)  
 IMS 254 Design Principles Applied (3)  
 IMS/ART 259 Art and Digital Tools I (3)  
 IMS 261 Information and Data Visualization (3)  
 IMS 356 Interactive Animation (3)  
 IMS/ART 359 Art and Digital Tools II (3)  
 IMS 390V Topics in IMS: Visualization  
 IMS 413 Usability and Digital Media Design (4)  
 IMS/STA/JRN 404 Advanced Data Visualization (3)  
 IMS 422 Advanced Web Design (3)  
 IMS 461 3D Visualization & Simulation (3)  
 MIS 245 Database Systems and Data Warehousing (3)

**A Self-designed track can be created with pre-approval of an advisor.**

#### **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 is available to students in all majors and is designed to broaden their professional opportunities. It strengthens problem-solving skills, and develops valuable interdisciplinary perspectives on contemporary issues. Courses explore diverse subjects but share a strong interdisciplinary theme. Students learn to integrate knowledge from a range of different disciplines and gain proficiency in developing their own interdisciplinary inquiries in areas of intellectual and social relevance.

#### **Program requirements**

##### **All of these:**

WST 201 Self and Place (3)  
 WST 231 Interdisciplinary Inquiry (3)  
 WST 301 Interdisciplinary Problems and Questions (3)  
 WST 321 Developing Interdisciplinary Projects: Exploring Ways of Knowing (3) **or**  
 WST 322 Developing Interdisciplinary Projects: Art and Politics of Representation (3)  
 WST 341 Interdisciplinary Synthesis and Action (3)  
 Additional 300-level or 400-level course from another interdisciplinary program (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 GPA 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 advisor.

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, Asian, Middle Eastern Languages and Cultures, 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 GPA is required for all courses in the minor.

#### **Program Requirements**

##### **Select courses from the following:**

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 advisor.

## **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 GPA is required to obtain a Jewish Studies minor. This minor is being revised at the time of the Bulletin publication. Please see the program director for the current requirements.

#### **Program Requirements**

**Ancient and Medieval Core Courses** (3 semester hours)

##### **Choose ONE of the following:**

CLS 310J Jews Among the Greeks and Romans (3)  
 HST 346 Medieval Jewish History (3)  
 HST 442 Ancient Jewish History (3)  
 REL 275 Critical Study of Biblical Literature (3)  
 REL 312 Religions of the Old Testament/Hebrew Bible (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)

##### **Holocaust**

HST 400A Senior Capstone in German History (when on the Holocaust) (3)  
 HST 472 Germany 1918-1945, from Revolution to Rubble (3)

##### **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)  
GER 232 The Holocaust in German Literature, History, and Film (3)

### Religion and Thought

REL 314 Social and Religious History of the Jewish People (3)  
REL 334 Women's Religious Experience in the Ancient Mediterranean (3)  
REL 385 Religious Roots of Anti-Semitism (3)  
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 advisor. All students must complete at least 18 credit hours, with at least 6 credits coming from LAS courses or their cross-listed equivalents outside of the student's major and outside a second minor.

### Program Requirements

#### Take one of three introductory courses:

LAS 208/ATH 206 Introduction to Latin America (3)  
LAS/HST 217 Modern Latin American History (3)  
SPN 362 Spanish American Cultural History II (3)

#### Core courses. At least 12 hours required.

ART 317 The Arts of Colonial Latin America (3)  
ATH 305 Latin America: Anthropological Perspectives (3)  
ATH 313 Introduction to South American Archaeology (4)  
ATH/BWS/LAS/WGS 325 Identity, Race, Gender, Class (3)  
ATH 414 Caribbean Archaeology (3)  
ATH 415 Caribbean Archaeology Field & Lab Methods (6)  
ATH 426D Culture/Environment in Brazil (3-6)  
BUS 399S Doing Business in Costa Rica: Environmental Sustainability and Risk Management (4)  
BUS 420S The Environment of Business in Latin America (2)  
BWS/FST/LAS/MUS 204 Brazilian Culture Through Popular Music (3)  
ENG/LAS 254 Latino/a Literature and the Americas (3)  
GEO 304 Latin American Development (4)  
GEO 405 The Caribbean in Global Context (3)  
HST/LAS/BWS 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)  
HST 307 Latin American Civilization - Colonial Period (3)  
HST 400G Latin American History (3)  
HST/LAS 437 Latin America Environmental History (3)  
LAS 207 Latin American Civilization (3)  
LAS 208/ATH 206 Introduction to Latin America (3)  
LAS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)  
LAS/HST 217 Modern Latin American History (3)  
LAS 260 Latin America in the United States (3)  
LAS 277,277,477 Independent Studies (0-5)  
LAS 277X Service-Learning (1)  
(concurrent registration in MPF course)  
LAS 315 Latin American Diaspora Communities (3)  
LAS/HST 319 Revolution in Latin America (3)  
LAS/SPN 332 Latin American Popular Culture (3)  
LAS/HST/BWS 385 Race, Science, and Disease in the Americas (3)  
LAS 390 Special Topics (3)  
LAS 410 Current Latin American Issues (3)  
LAS/GLG/IES 412 Tropical Ecosystems of Costa Rica (5)  
LAS/BWS/FST 415 Cuba in Revolution: Its History, Politics, and Culture (MPC) (4)  
LAS/IES 416 Connections: Understanding Tropical Ecology and Natural History via Belize, Central America (5)  
LAS 477 Independent Studies (3-4)  
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)  
POR 383 By or About (Afro-) Brazilian Women (3)  
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 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 The Spanish American Essay (3)

SPN 490 Issues in Hispanic Literature, Linguistics, or Culture (3) (Latin American topic required)

#### Related Hours. (up to three 3 hours from this list can count toward the minor)

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)  
BUS 371 International Business (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)  
FSW 206 Social Welfare: Impact on Diverse Groups (4)  
GEO 101 Global Forces, Local Diversity (3)  
GEO 111 World Regional Geography: Patterns and Issues (3)  
GEO 473 Development and Underdevelopment (3)  
GEO 475 Global Periphery's Urbanization (3)  
HST 361 Colonial America (3)  
HST 371 Native American History to 1840 (3)  
IDS 159 Strength Through Cultural Diversity (3)  
ITS 201 Introduction to International Studies (3)  
LAS 413/IES 423 Tropical Marine Ecology (5)  
LAS 417/517 IES/GLG 415 Coral Reef Ecology (5)  
ITS 301 Intercultural Relations (3)  
ITS 302 Problems of Non-Western Societies (3)  
MGT 304 Cross Cultural Management (3)  
MKT 425/471L Global Marketing (3)  
MUS 185 The Diverse Worlds of Music (3)  
MUS 186 Global Music for the I-Pod (3)  
POL 326 Comparative Ethnic Politics (3)  
POL 439 North American Politics: Unity and Diversity (3)  
SOC 348 Race and Ethnic Relations (3)  
SPN 482 Spanish Dialectology (3)

#### 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.

## Linguistics

(18 semester hours)

For information, contact the Linguistics Advisor, 166 Irvin Hall (513-529-1852).

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 GPA is required for all courses in the minor.

### Program Requirements

#### This one:

ENG 303 Introduction to Linguistics (4) **or**  
CLS 303 Introduction to Linguistics (4) **or**  
SPN 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 the following:

ATH 265, 465; COM 436; ENG 301, 302, 410; FRE 341; MTH 483; PHL 373; PSY 374; SPN 481, 482.

Note: When initiating the minor, students must register with the Linguistics advisor and thereafter check their progress with the advisor 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/WGS 383 By or About (Afro-) Brazilian Women (3)

#### Choose from the following to reach 18 credit hours:

##### *Taught in English:*

ATH 305 Latin America: Anthropological Perspectives (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 GPA 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

#### Choose ONE of the following:

MTH 249 Calculus II (5) **or**  
 MTH 249H Honors Calculus II (5)  
 MTH 251 Calculus II (4)

#### Choose ONE of the following:

MTH 252 Calculus III (4) **or**  
 MTH 252H Honors Calculus III (4)

#### Choose ONE of the following:

MTH 222 Introduction to Linear Algebra (3)  
 MTH 222T Introduction to Linear Algebra (Honors) (2) **and**  
 MTH 331T Proof: Introduction to Higher 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, 435, 436, 437, 438, 439, 447, 453 or 495  
 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 483. 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 the Department of French and Italian, 207 Irvin Hall (513-529-7453).

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, 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 332 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 minor advisor, 170 Irvin Hall (513-529-2526).

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 GPA is required for all courses in the minor.

### Program Requirements

#### Six or more semester hours from the following (no more than 6 hours to be taken in any one department):

ATH 307 The Middle East: Anthropological Perspectives (3)  
 HST 241 Introduction to Islamic History (3)  
 HST 242 The History of the Modern Middle East (3)  
 POL 336 Politics of the Middle East (3)  
 REL 226 Islam in History (3)

#### Twelve or more semester hours from the following:

ARB 201, 202 Intermediate Modern Arabic (3)  
 ARB 230 Topics in Arabic Literature in Translation (3)  
 ARB 301, 302 Advanced Arabic (3)  
 ARB 311 Media Arabic (3)  
 ART 313 Early Christian, Byzantine, and Islamic Art (3)  
 ATH 307 The Middle East: Anthropological Perspectives (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 241 Introduction to Islamic History (3)  
 HST 242 The History of the Modern Middle East (3)  
 HST 324 Eurasian Nomads and History (3)  
 HST 337 The United States and the 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 226 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 Biology (513-529-3100).

The molecular biology minor is offered cooperatively by the Departments of Biology, Chemistry and Biochemistry and Microbiology.

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 GPA is required for all courses in the minor.

### Program Requirements

#### All of these:

One course in biochemistry (CHM 332, or 432)

One course in cell biology (BIO 203 or MBI 201)

One course from each of the three departments (BIO, CHM and MBI)

One laboratory course (BIO/CHM/MBI 424, BIO 464, CHM 438 or MBI 465) or earn at least two credits of directed research in molecular biology.

One course in molecular biology (MBI 365 or BIO 444)

#### Other courses to bring total semester hours to 18:

BIO 203 Introduction to Cell Biology (3)

BIO 255 Plant Biotechnology (3)

BIO 342 Genetics (3)

BIO 361 Patterns in Development (4)

BIO 403 Plant Development (3)

BIO/CHM/MBI 424 Advanced Experimental Techniques in Structural and Functional Genomics (4)

BIO 444 Molecular Biology (3)

BIO 449 Biology of Cancer (3)

BIO 464 Laboratory in Cell/Molecular Biology (3)

BIO/CHM/CSE/MBI 466 Bioinformatics Computing Skills (3)

BIO 471 Molecular Physiology (3)

BIO/MBI 485/CSE 456 Bioinformatics Principles (3)

CHM 332 Outlines of Biochemistry (4)

CHM 430 Topics in Biochemistry (1-3)

CHM 432 Fundamentals of Biochemistry (4)

CHM 438 Biochemistry Laboratory (2)

CHM 471 Biophysical Chemistry I (3)

CHM 472 Biophysical Chemistry II (3)

MBI 201 General Microbiology (4)

MBI 365 Molecular and Cellular Biology (3)

MBI 414 Immunology (3) or

MBI 415 Immunology Principles and Practice (4)

MBI 425 Microbial Physiology (4)

MBI 445 Microbial Genetics (3)

MBI 464 Human Viruses (3)

MBI 465 Microbial and Molecular Genetics Laboratory (2)

## Naval Science

(23 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 GPA 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 (3)

NSC 402 Naval Personnel Management (3)

#### Choose SIX semester hours from the following:

NSC 102 Naval Ship's Systems (3)

NSC 201 Naval Mission Systems (3)

NSC 301 Navigation (3)

NSC 302 Naval Operations and Seamanship (3)

NSC 311 The Evolution of Warfare (3)

NSC 320 Tactical Problems Seminar (1)

NSC 377 Independent Studies (0-5)

NSC 411 Amphibious Warfare (3)

#### One course each from two different departments

#### Minimum SIX hours from the following:

CSE 141 Personal Computer Applications (2)

CSE 151 Computers, Computer Science, and Society (3)

CSE 163 Introduction to Computer Concepts and Programming (3)

CSE 174 Fundamentals of Programming and Problem Solving (3)

HST 112 Survey of American History II (3)

HST 219 U.S. Diplomatic History to 1914 (3)

HST 222 U.S. Foreign Relations Since 1898 (3)

HST 369 United States in the Modern Era (3)

ISA 235 Information Technology and the Intelligent Enterprise (3)

MGT 291 Introduction to Management & Leadership (3)

MTH 151 or 153 Calculus I (5 or 4)

MTH 249 or 251 Calculus II (5 or 4)

PHY 181, 182 The Physical World (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 Biology, 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 GPA is required for all courses in the minor.

### Program Requirements

#### Required courses:

BIO 203 Introduction to Cell Biology (3)

BIO 305 Human Physiology (4)

PSY 251 Introduction to Biopsychology (3)

#### Choose at least 3 courses:\*

BIO 454 Endocrinology (3)

BIO 457 Neuroanatomy (3)

BIO 458 Neuroanatomical Methods (1)

BIO 459 Methods in Neurophysiology (1)

BIO 464 Laboratory in Cell/Molecular Biology (3)

BIO 465 Animal Behavior (4)

BIO 469 Neurophysiology (3)

BIO 471 Molecular Physiology (3)

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)

\* 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 BIO 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 GPA 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 advisor 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)

#### Choose at least ONE of the following:

MTH 432 Optimization (3)  
MTH 438 Theory and Applications of Graphs (3)  
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, engineering physics, or biological physics. Courses may not be taken on a credit/no-credit basis.

### Program Requirements

#### All of these:

PHY 181, 182 The Physical World I, II (4, 4)  
PHY 183, 184 General Physics Laboratory (1, 1)  
PHY 281 Contemporary Physics I (3)  
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 282 Contemporary Physics II: Frontiers (3) **or**  
PHY 292 Electronic Instrumentation (2) **and**  
PHY 294 Laboratory in Electronic Instrumentation (2), **or**  
PHY 286 Introduction to Computational Physics (3)

## Plant Biology

(18 semester hours)

For information, contact the Department of Biology, 316 Pearson Hall (513-529-4200).

This minor provides a broad perspective into plant biology and the importance of plants in today's society.

The minor in Plant Biology is not open to Botany majors. The minor is open to Biology majors, but only 10 credit hours may

count toward the minor in Plant Biology and the AB or BS in Biology. Courses used for this minor cannot be used for the minor in horticulture or biotechnology, except for BIO 115, 116, or 191. A minimum 2.00 GPA is required for all courses in the minor; no courses for the minor may be taken credit/no-credit. Advanced courses must represent at least 10 hours of the total 18. If you plan to take a minor in botany, please consult with the chief departmental advisor.

### Program Requirements

#### Choose one of these courses:

BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
BIO 191 Plant Biology (4)

#### Choose one of these courses:

BIO 203 Introduction to Cell Biology (3)  
BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)

#### Select remaining courses from the following:

BIO 126 Evolution: Just a theory? (3)  
BIO 131 Plants, Humanity, and Environment (3)  
BIO 155 Field Botany (3)  
BIO 176 Ecology of North America (3)  
BIO 181 Medicinal and Therapeutic Plants (3)  
BIO 203 Introduction to Cell Biology (3)  
BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)  
BIO 205 Dendrology (4)  
BIO 209 Fundamentals of Ecology (3)  
BIO 255 Introduction to Biotechnology (3)  
BIO 302 Plant Taxonomy (4)  
BIO 314 Plant and Fungal Diversity (4)  
BIO 340 Internship (1-4)  
BIO 342 Genetics (3)  
BIO 401 Plant Ecology (3)  
BIO 402 Plant Anatomy (3)  
BIO 403 Plant Development (3)  
BIO 425 Environmental Plant Physiology (4)  
BIO 431 Global Plant Diversity (3) **or**  
BIO 432 Ecoregions of North America (3)  
BIO 466 Bioinformatics Computing Skills (3)

## Plant Biotechnology

(18 semester hours)

For information, contact the Department of Biology, 212 Pearson Hall (513-529-3100).

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. Courses used for this minor cannot be used for the minor in Plant Biology or Horticulture, except for BIO 115, 116, or 191. A minimum 2.00 GPA is required for all courses in the minor; no courses for the minor may be taken credit/no-credit. Advanced courses must represent at least 10 hours of the total 18, but only 10 credit hours in this minor can count toward the A.B. or B.S. in Botany or Biology.

### Program requirements:

#### Choose at least one of the following:

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
BIO 131 Plants, Humanity, and Environment (3)  
BIO 181 Medicinal and Therapeutic Plants (3)  
BIO 191 Plant Biology (4)

#### Take the following:

BIO 203 Introduction to Cell Biology (3) **or**  
MBI 365 Molecular and Cell Biology (3)  
BIO 255 Introduction to Biotechnology (3)

#### Choose additional hours from the following:

BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)  
BIO 314 Plant and Fungal Diversity (4)  
BIO 340 Internship (1-4)  
BIO 342 Genetics (3)  
BIO 425 Environmental Plant Physiology (4)  
BIO/MBI/CSE 466 Bioinformatics Computing Skills (3)  
BIO/MBI 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 a career or further education.

This minor is not open to students with a major in the Department of Political Science.

### Program Requirements

#### Take this course first:

POL 241 American Political System (4)

#### Take at least one of the following (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. A minimum 2.00 GPA is required in all POL hours. All courses must be taken for a grade. At least 12 hours applied to the minor must be taken at Miami. Students are encouraged to consult with a faculty advisor when selecting courses.

## Comparative Religion

(18 semester hours)

For information, contact the Department of Comparative Religion, 164 Upham Hall (513-529-4300). This minor is arranged with a faculty advisor in the department.

### Program Requirements

#### This one:

REL 201 Methods for the Study of Religion (3) and

At least 15 additional semester hours in Comparative Religion (nine hours must be at 300 level and above).

## Rhetoric/Writing

(18 semester hours)

For information, contact the Department of English, 356 Bachelor Hall (513-529-5221).

This minor provides students 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 GPA is required for all courses in the minor. This minor is open to all majors except English: Professional Writing.

### Program Requirements

#### Required courses:

ENG 223 Strategies for Writers (3)  
 ENG 415 Capstone in Professional Writing (3) or

ENG 495R Capstone in Rhetoric and Writing (3)

#### Elective courses (12 hours):

ENG/IMS 171 Humanities and Technology (3)  
 ENG 222 The Rhetoric of Information and Data Visualization (3)  
 ENG/IMS 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 301 History of the English Language (4)  
 ENG 302 Structure of Modern English (4)  
 ENG 303 Introduction to Linguistics (4)  
 ENG 313 Technical Writing (3)  
 ENG 315 Business Writing (3)  
 ENG 316 Legal Writing and Reasoning (3)  
 ENG 323 Creative Non-Fiction (3)  
 ENG 359 Writing Center Consulting (3)  
 ENG/IMS 407 Interactive Business Communication (3)  
 ENG 409/AAA 410 Asian/Asian American Studies (3)  
 ENG 411 Visual Rhetoric (3)  
 ENG 412 Print and Digital Editing (3)  
 ENG 413 Grant and Proposal Writing (3)  
 ENG 414 Usability and User Experience (3)  
 ENG/IMS 416 Writing for Global Audiences (3)

## Russian

(18 semester hours)

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 172 Irvin Hall (513-529-2526).

You must have a minimum cumulative GPA 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 133, 137, 230, 250, 254, 255, 256, 257, 258, 263, 272, 412, 450, 311 or 411 (if not used as a required course).

## Russian, East European, and Eurasian Studies

(18 semester hours)

For information, contact the Department of German, Russian, Asian, Middle Eastern Languages and Cultures, 172 Irvin Hall (513-529-2526).

This interdisciplinary minor allows students to study the history politics, 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 Havighurst cultural workshop in varying locations in Russia, Eastern Europe, and Eurasia; 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:

ATH/HST/POL/REL/RUS 254 Introduction to Russian, East European, and Eurasian Studies (3)

Choose ONE of the following:

HST 324, 374, 375, 378, 428, 470

**Choose ONE of the following:**

POL 328, 331, 332, 334, 420, 430B, 488; ITS 402O

**Choose ONE of the following:**

ATH/GEO/RUS 306; POL 230; HST 436; POL 440; REL 337, 338

**Choose TWO additional courses from the following list or those listed above:**

CLS/RUS 325; REL/RUS 133; RUS 137, 201, 202, 250, 255, 256, 257, 258, 301, 302, 311, 411, 412, 450; RUS/FST 263, 272.

## Social Justice and Inequalities

(18 semester hours)

For information, contact the Department of Sociology and Gerontology, 375 Upham Hall (513-529-2628).

The Minor in Social Justice Studies (SJS) offers a sociologically-based foundation of knowledge and skills to examine the essential connections between social values, structured inequalities, and social change.

**Program Requirements:**

**All of these:**

SJS/SOC 165 Introduction to Social Justice Studies (3)  
SJS/SOC 323 Social Justice and Change (3)

**Choose ONE of the following:**

SOC/BWS 348 Race and Ethnic Relations (3)  
SOC 372 Social Stratification (3)

**Choose TWO of the following:**

SOC/WGS 203 Sociology of Gender (3)  
SOC/FSW/WGS 221 Human Sexuality (3)  
SOC 225 Work and Occupational Justice (3)  
SOC/DST/EDP/WGS 278 Women and (Dis)ability: Fictions and Contaminations of Identity (3)  
SOC 305 Sociology of Globalization (3)

**Choose ONE of the following:**

SOC/GTY 318 Sociology of Aging and the Life Course (3)  
SOC/DST/EDP/WGS 375 (Dis)ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)  
SJS/SOC 487 Globalization, Social Justice, and Human Rights (3)  
SOC 440A Field Experience-Research (3-4)\*

\* Must be preapproved by instructor for Social Justice related content.

## 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 GPA 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 153 Sociology in a Global Context (3)  
SOC 201 Social Problems (4) or  
SOC 202 Social Deviance (4)  
SOC 412 Sociology of Law (3)

**Choose the remaining hours from the following:**

SOC 201, 202, 348, 352, 372, 411, 454

**OPTION IN MEDICINE OR DENTISTRY**

**All of these:**

SOC 151 Social Relations (4) or  
SOC 153 Sociology in a Global Context (3)  
SOC 357 Medical Sociology (3)  
SOC 372 Social Stratification (3)

**Choose at least TWO of the following:**

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)

**Choose at least ONE of the following:**

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 462 Health Promotion Program Planning and Evaluation (3)  
PHL 375 Medical Ethics (4)

**OPTION IN BUSINESS**

**All of these:**

SOC 151 Social Relations (4) or  
SOC 153 Sociology in a Global Context (3)  
SOC 201 Social Problems (4)

**Choose at least TWO of the following:**

SOC 225 Work and Occupational Justice (3)  
SOC 417 Economy and Society (3)  
SOC 454 Formal Organization (3)

**Choose at least ONE of the following:**

GTY 365 Social Policy and Programs in Gerontology (3)  
SOC 203 Sociology of Gender (3)  
SOC 305 Introduction to the Sociology of Globalization (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 GENERAL SOCIOLOGY**

**All of these:**

SOC 151 Social Relations (4) or  
SOC 153 Sociology in a Global Context (3)  
SOC 262 Research Methods (4)  
SOC 482 Sociological Theory (4)  
Any other sociology courses to complete the 18 hours

## 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 advisor in the department. Courses may not be taken credit/no-credit. This minor consists of Spanish courses above the 202 level.

**Program Requirements**

**This course:**

SPN 311 Grammar Review and Introductory Composition (3)

**Choose ONE of the following:**

SPN 312 Introduction to Spanish Language/Linguistics (3)  
SPN 315 Introduction to Hispanic Literature (3)

**Choose 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)



Two additional courses from any 300 level course (excluding SPN 303 and SPN 341), or SPN 420, 430, 440, or 481-484. Other 400 level courses may be taken with permission from the instructor.

## 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 GPA. 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

#### **Choose THREE courses from the following:**

STA 333, 365, 402, 404, 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. This minor is available to students majoring in mathematics.

To complete the minor in Statistics, you must earn at least 18 semester hours with at least a 2.00 GPA. 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

#### **Choose ONE of the following:**

STA 333, 365, 402, 404, 427, 432, 462, 475, 483

## 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 advisor. Six courses, or at least 20 semester hours, are required. A minimum 2.00 GPA 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)

#### **Choose TWO or THREE of the following to bring the total to 20 hours:**

GEO 241 Map Interpretation (3) or  
GEO 242 Mapping a Changing World (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 advisor.

## Women's, Gender, and Sexuality Studies

(18 semester hours)

For information, contact the director of the Women's, Gender, and Sexuality Studies Program, 126 MacMillan Hall (513-529-4616).

The Women's, Gender, and Sexuality 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, Gender, and Sexuality 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, Gender, and Sexuality 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, Gender, and Sexuality 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, Gender, and Sexuality 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 advisor. Women's, Gender, and Sexuality Studies courses may fulfill other departmental, college, or Miami Plan requirements.

A minimum 2.00 GPA is required for all courses in the minor. This minor fulfills the Miami Plan Thematic Sequence requirement.

### Program Requirements

**Choose ONE of the following:**

WGS 401 The Role of Women in a Transforming Society (3)

BWS/WGS/ENG 432 Feminism and the Diaspora: U.S. Women of Color (3)

**Choose ONE of the following:**

WGS/PHL 355 Feminist Theory (3)

WGS/ENG 368 Feminist Literary Theory and Practice (3)

WGS/ENG 435 Queer Theory (3)

WGS/BWS 437 Black Feminist Theory (3)

Feminist theory course approved by the WGS Advisor Committee

**Other courses:**

WGS 201 Introduction to Women's Studies (3) is strongly recommended, particularly as a first course for students considering this minor.

WGS courses and courses cross-listed with Women's, Gender, and Sexuality Studies to be used for the remaining hours.

Courses, not cross-listed with the Women's, Gender, and Sexuality Studies Program, may be approved for this minor. Special topics courses offered by the program and selected honors seminars are offered most semesters.

# College of Creative Arts

Office of the Dean  
104 Center for Performing Arts  
Phone: 513-529-6010  
www.fna.MiamiOH.edu

## Degrees and Majors Offered

**Bachelor of Arts in Architecture**

**Bachelor of Arts in the History of Art and Architecture**

**Bachelor of Arts in Interactive Media Studies**

**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

**Minors:**

2D Media Studies  
2D Media Studies- for Art Education Majors  
Art and Architecture History  
Arts Management  
Ceramics  
Dance  
Fashion Design  
Graphic Design  
Jewelry Design and Metals  
Landscape Architecture-suspended  
Music Composition  
Music History  
Music Performance  
Music Theatre  
Photography  
Sculpture  
Theatre Arts  
Urban Design

**Undergraduate Certificate in:**

Design Thinking

## General Information

The College of Creative 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 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. 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.

## 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 College of Creative Arts. Specific requirements are described in the sections on architecture and interior design, art, music and theatre. They do not apply to students in other divisions who wish to register for individual courses.

Admission into a specific program within the College of Creative 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 College of Creative 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 College of Creative Arts may not register for more than 20 hours in a semester without approval of the dean.

## Global Miami Plan

It is important that you consult with your academic advisor 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 College of Creative 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, art education, 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 College of Creative Arts divisional advisor.** 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)

ARC 105 Introduction to Architecture (3), 171 Visual Fundamentals (3)  
ART 121, 122 Drawing I, II (3, 3)  
ENG 111, 112 Composition and Rhetoric, 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)  
ART 151 What is Graphic Design? (1) (for those students interested in graphic design)  
ART 195 The Profession of Art Education (3) (for those students interested in art education)  
ENG 111, 112 Composition and Rhetoric, 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 College of Creative 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 Composition and Rhetoric, Composition and Literature (MPF I) (3, 3)  
MUS 185 Diverse Worlds of Music (3) (MPF IIA or IIIB)  
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 Composition and Rhetoric, Composition and Literature (3, 3) (MPF I)  
THE 101 Introduction to Theatre: Drama and Analysis (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 pre-professional degree prepares you to enter a professional graduate program to become a registered/licensed architect or to enter an architectural field at a pre-professional 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.MiamiOH.edu/architecture](http://www.MiamiOH.edu/architecture).

To transfer, you must meet the above criteria (including portfolio submission) and should have a minimum 3.00 cumulative GPA. 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 pre-professional 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 pre-professional 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 + 60 graduate credits)

Master of Architecture III (non-pre-professional degree + 105 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 in the program 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.

1. Cumulative GPA of 3.50 or better.
2. 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 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, and it is advisable to take support courses that will be required as prerequisites at the graduate level. Prerequisites for Miami's Master of Architecture program include ARC 410 Statics and Strengths of Materials, ARC 417 Architectural Materials, and ARC 418 Construction Methods. See the Courses of Instruction section in this Bulletin for the Master of Architecture degree and consult with your advisor.

### Program Requirements: Architecture (128 semester hours minimum)

#### Freshman year

ARC 101, 102 Beginning Design Studio (5, 5)  
ARC 113, 114 Graphic Media I & II (2, 2)  
ENG 111, 112 Composition and Rhetoric, Composition and Literature (3, 3)\*\*  
Global Miami Plan Foundation course electives (6, 6)

#### Sophomore year

ARC 201, 202 Architecture 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 of Architecture I, II (3, 3)\*  
Global Miami Plan Foundation course electives (3)  
Global Miami Plan Thematic Sequence (3)

#### Junior year

ARC 301, 302 Architecture Studio (6, 6)  
Required ARC electives (11)

Global Miami Plan Foundation course electives (3)  
Global Miami Plan Thematic Sequence (6)

#### Senior year

ARC 401, 402 Architecture Studio (6, 6)  
Required ARC electives (12)  
Global 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 + practice (see advisor for Master of Architecture prerequisites)
- 2 credit hours communication process

### Program Requirements: Interior Design (128 semester hours minimum)

#### Freshman year

ARC 101, 102 Beginning Design Studio (5, 5)  
ARC 113, 114 Graphic Media I & II (2, 2)  
ENG 111, 112 Composition and Rhetoric, Composition and Literature (3, 3)\*\*  
Global 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 of Architecture I, II (3, 3)\*\*  
ARC 225 Design: Behavior, Perception, Aesthetics (3)  
Global Miami Plan Foundation course elective (3)  
Global Miami Plan Thematic Sequence (3)

#### Junior year

ARC 304 Interior Design Studio (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)  
Global Miami Plan Foundation course elective (3)  
Business elective (3)  
Global 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 Studies (3)  
Miami Plan Foundation course elective (3)  
General electives (7)  
\* Global Miami Plan Foundation course

**Notes:** Elective studio (3) must be taken outside the major or through off-campus study. ARC 408 is offered as a Miami Plan Capstone.

## Bachelor of Arts in Art and Architecture History

This major focuses on the different roles that art, architecture, and visual culture have played in human development. Emphasis is placed on how art reflects not only its specific history, but the aesthetic, social, philosophical, and religious values of the culture that produced it.

Students develop research and writing skills to better understand and critically evaluate the manifestations of the visual arts throughout the world. Additionally, they gain experience through internships and international study opportunities. The program prepares students for careers in communications and publishing, at museums, galleries, and historical societies, as well as in corporations, education, and all areas of the visual arts, including arts administration.

The History of Art and Architecture is an interdisciplinary major that includes the departments of Art, Architecture and Interior Design, and Classics, and the Miami University Art Museum. For more information, contact the Department of Art, 124 Art Building (513-529-2900) or the Department of Architecture and

Interior Design, 101 Alumni Hall (513 529-7210). Complete description of the major curriculum is found under the Art Department section.

## Department of Art

The Department of Art offers these degrees: Bachelor of Arts in Art and Architecture History; 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 architecture, graphic design and advanced studio disciplines.

The Department of Art also offers minors in the History of Art and Architecture, 2D Media Studies in Art, 2D Media Studies in Art for Art Education Majors, Ceramics, Jewelry Design and Metals, and Sculpture.

The department also offers graduate programs leading to a Master of Fine Arts degree in various concentrations. More information on this program 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 from other majors who are 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 be admitted to Miami University and submit a portfolio to the Art Department at the time of their application to the university. 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 from a portfolio review to the Department of Art or as art education majors, may seek admission after successfully completing Art 195. 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 GPA 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.

## Bachelor of Arts in Art and Architecture History

This major focuses on the different roles that art, architecture, and visual culture have played in human development. Emphasis is placed on how art reflects not only its specific history, but the aesthetic, social, philosophical, and religious values of the culture that produced it.

Students develop research and writing skills to better understand and critically evaluate the manifestations of the visual arts throughout the world. Additionally, they gain experience through internships and international study opportunities. The program prepares students for careers in communications and publishing, at museums, galleries, and historical societies, as well as in corporations, education, and all areas of the visual arts, including arts administration.

Art and Architecture History is an interdisciplinary major that includes the departments of Art, Architecture and Interior Design, Classics, and the Miami University Art Museum. For more information, contact the Department of Art, 124 Art Building (513-529-2900) or the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210)

#### Program Requirements

**(48 hours, plus 2 years foreign language)**

##### Level One: Introductory Courses, 12 hours

###### THREE hours from these:

ARC 107 Global Design (3)\*  
ARC 221,222 History of Architecture I, II (3, 3) \*

###### SIX hours from these:

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 (3)\*

###### Sophomore seminar:

ART 285 Writing and Research in Art and Architectural History (3)

##### Level Two: Themed Courses, 6 hours

**Cross-cultural and cross-disciplinary approaches to the history of art and architecture.**

ARC 221,222 History of Architecture I, II (3, 3) \*

ART 233 Global Perspectives on Dress (3) \*  
 ART 235 The Gods are Here: Spirituality and Text in African Art (3)  
 ART 276 Introduction to the Art of the Black Diaspora (3)  
 ART 278 Text and Image in East Asian Buddhist Art (3)  
 ART 279 Buddhism and Culture: China and Japan (3)\*  
 ART 283 Modern America (3)  
 ART 286 China, Korea, and Japan (3)  
 ART 389 The History of Photography (3)  
 CLS 210A Classical Antiquity through a Lens (3)  
 CLS 210C Roman Cities (3)  
 CLS 244 Introduction to Egyptian Art and Archaeology (3)  
 CLS 323 Discoveries in Archaeology (3)  
 CLS 332 Classical Mythology and the Arts (3)

NOTE: ARC 221, 222 count for either Level One or Level Two Courses, but not both.

\*Miami Plan Foundation course

### Level Three: Area Courses, 15 hours

**Courses designed to explore issues of style and how it changes according to function, context and chronology.**

**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 High Renaissance and Mannerism (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 High Renaissance and Mannerism (3)  
 ART 316 Baroque Art in Europe (3)  
 ART 317 The Arts of Colonial Latin America (3)  
 ART 386 Art of the Weimar Republic (3)  
 ART 485 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)  
 ART 386 Art of the Weimar Republic (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)  
 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 Contemporary Architectural Theory and Practice (3)  
 ARC 452/552 Recent Architecture Theory (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. Topics vary.**

ARC 405 Seminar in Architectural History (3)  
 ART 480 Seminar In Art History (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 advisor.

#### **Studio Requirement, 6 hours**

ART 111 Visual Fundamentals, 2-D (3)  
 ART 121,122 Drawing I, II (3, 3)  
 ART 171 Visual Fundamentals, 3-D (3)

#### **Internship or Field Study, 3 hours**

ART 391 Field Study in Art and Architecture History (3)

#### **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)

All courses for the major must be taken for a grade.

### Departmental Honors

To graduate with Departmental Honors in Art and Architecture History, 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.

## 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), Council for the Accreditation of Educator Preparation (CAEP), and the State of Ohio Department of Education Teacher Licensure Standards, it is in compliance with current guidelines from Ohio's Academic Content Standards (Visual Arts) and the National Art Education Association (NAEA).

A student must plan a program with an art education advisor 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)

#### **First Year**

ART 111 Visual Fundamentals (3)  
 ART 121 Drawing I (3)  
 ART 122 Drawing II (3)  
 ART 171 Visual Fundamentals 3-D (3)  
 ART 187 History of Western Art: Prehistoric to Gothic (3) \*  
 ART 188 History of Western Art: Renaissance to Modern (3) \*  
 ART 195 The Profession of Art Education (3)  
 GMPF (9)

#### **Second Year**

ART 295 Early Childhood Art Education (3)  
 ART 296 Middle to Adult Art Education (3)  
 EDP 201 Human Development and Learning in Social and Educational Contexts (3) \*  
 200 level reg studio (from ART 231, 241, 255 or 257, 261, 264 or 271) (3)  
 200 level reg studio (from ART 231, 241, 255 or 257, 261, 264 or 271) (3)  
 200 level reg studio (from ART 231, 241, 255 or 257, 261, 264 or 271) (3)  
 200 level reg studio (from ART 231, 241, 255 or 257, 261, 264 or 271) (3)  
 GMPF (9)  
 Electives (2)

#### **Third Year**

ART 395 The Art Teacher (3)  
 ART 493 Art Curriculum in the School (3)  
 EDP 256 Psychology of the Exceptional Learner (3)  
 EDP 279 Technology + Media Literacy and Learning (3)  
 200 level reg studio (from ART 231, 241, 255 or 257, 261, 264 or 271) (3)  
 200 level reg studio (from ART 231, 241, 255 or 257, 261, 264 or 271) (3)  
 300 level studio focus (from ART 331, 332, 341, 342, 357, 358, 361, 362, 364, 371, 372) (3)  
 Thematic Sequence (3-6)  
 EDT 446A Integrating Literacy Across the Content Areas (3)  
 GMPF (3)  
 Electives (2)

#### **Fourth Year**

300 level studio focus (from ART 331, 332, 341, 342, 357, 358, 361, 362, 364, 371, 372) (3)  
 ART 495 Art Education Practicum (3)  
 Upper Level Art History choose one: (ART 286, 311, 312, 487, 489) (3)  
 Thematic Sequence (3-6)  
 ART 419 Supervised Student Teaching in Art (16) (MPC)

## GMPF (6)

Students must also complete all Global Miami Plan requirements.

\* Global Miami Plan Foundation course

## 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 spring 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 What is Graphic 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 Composition and Rhetoric, Composition and Literature (3, 3) \*  
 Global Miami Plan Foundation courses (4, 3)

#### Second year

ART 221 Drawing 3 (3)  
 ART 222 Drawing 4 (3) **or**  
 ART 259 Art and Digital Tools I (3)  
 ART 251 Typography (3)  
 ART 252 Image (3)  
 ART 254 Fundamentals of Interaction Design (3)  
 ART 256 Design, Perception & Audience (3) (MPF IIA)\*  
 ART 455 Design History and Cultural Contexts (3)  
 Global Miami Plan electives (5, 3)

#### Third year

ART 351 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 Applied Interaction Design (3)  
 Summer internship (2 or 3)  
 Design Focus Track, electives (3, 3)  
 Global Miami Plan, electives (3, 2)

#### Fourth year

ART 451 The Professional Portfolio (3) **or**

IMS 440 Interactive Media Studies Practicum (4) \*\*\*

ART 452 Senior Degree Project (3) \*\*\*

ART 453 Highwire Brand Studio (4) \*\*\*

IMS 418 Social Media Marketing and Online Community Management (3)

Non-western art history course (3)

Design Focus Track, electives (3, 3)

Global Miami Plan electives (5, 5)

\* Global 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 spring semester

\*\*\* Capstone

## 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 188 History of Western Art: Renaissance-Modern (3)\*  
 ART 281 Contemporary Art Forum (1; maximum 3)

#### Choose one of the following survey courses: (3 total)

ART 185 India and Southeast Asia (3)\*  
 ART 187 History of Western Art: Prehistoric-Gothic (3)\*

ENG 111,112 Composition and Rhetoric, Composition and Literature (3, 3)\*  
 Global Miami Plan and electives (3, 3)

#### Second year

ART 221, 222 Drawing III, IV (3, 3)  
 ART 231 Painting I (3)

Art studio elective (200 level) (3)

#### 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 281 Contemporary Art Forum (1; maximum 3)  
 Select one additional 200 level studio, either 2D or 3D (3)  
 Global Miami Plan and electives (6, 7)

**Note: Studio core must be completed before registering for studio concentration in the junior year.**

#### Third year

Studio concentration: one 300 level studio in an area of concentration per semester (3, 3)  
 Studio elective outside concentration (200-300-level): could be a second concentration (3, 3)  
 ART 320 Thematic Studio (3-6; maximum 12) (repeatable)  
 ART 321 Drawing V (3)  
 ART 496 Theory for Visual Artists (3; maximum 6)

#### Art History. Select one of the following three:

ART 318 Modernism, Modernity, and the Visual Arts (3)  
 ART 319 Postmodern Art and Theory (3)  
 ART 489 Art of the Late 20th Century (3)  
 Global Miami Plan and electives (3, 2)

#### Fourth year



Studio concentration: (one 400 level studio in an area of concentration per semester) (3, 3)  
 Studio elective outside concentration (200-400 level): could be a second concentration (3, 3)

Global Miami Plan and electives: Art History, Art Capstone, and Studio (10, 10)

\* Global 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 and goals are available on the department Web site: [www.MiamiOH.edu/music/](http://www.MiamiOH.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).

### Special Curriculum Requirements

#### Applied Music

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 performance minor.

#### 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 and Chamber Music Experience

All music majors must complete seven semesters of MUS 140 and one semester of MUS 139.

### Departmental Honors

Music students may apply for departmental honors at the end of the junior year. Requirements for the program include a 3.50

cumulative GPA, 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 members, 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 interests.

### Program Requirements

(128 semester hours minimum)

Complete the Global Miami Plan for Liberal Education or consult the Honors program requirements in the Bulletin according to your catalog year.

Complete Department of Music requirements.

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
 MUS 151/152 Sightsinging and Dictation (1, 1)  
 MUS 185 The Diverse Worlds of Music (3)\* **or**  
 MUS 186 Global Music for the I-Pod (3)\*  
 MUS 201/202 Theory of Music (3, 3)  
 MUS 211/212 History of Western Music (3, 3)

\* Global Miami Plan Foundation course

#### Two of these:

MUS 204 Brazilian Culture Through Popular Music (3)  
 MUS 221 Music Technologies (3)\*  
 MUS 285 Introduction to African American Music (3)  
 MUS 287 Enter the Diva: Women in Music (3)\*  
 MUS 301 Counterpoint (3)  
 MUS 302 Analysis (3)  
 MUS 303 Electronic Music (3)  
 MUS 371 Composition (3)  
 MUS 372 Composition (3)  
 MUS 385 The Roots of Black Music: Blues, Gospel and Soul (3)  
 MUS 386 The History and Development of Hip Hop Culture in America (3)  
 MUS 404 Wind Band Ensemble Literature (3)  
 MUS 405 Choral Literature (3)  
 MUS 461 American Music (3)  
 MUS 490 Special Topics in Music (3)  
 \*Global Miami Plan Foundation course

Complete a minimum of seven (7) hours of electives in the Department of Music.

Achievement of sophomore standing in a major applied area. This proficiency is established through applied music jury examination. Usually two semesters of applied music are required to reach sophomore standing.

Large ensemble requirement: All students in the Bachelor of Arts in Music are required to enroll in one of the large ensembles for four semesters in their primary performance medium. The large ensembles include: University Symphony Orchestra, Marching Band, Symphony Band, Collegiate Chorale, Chamber Singers, Choraliers, Men's Glee Club, and Wind Ensemble. Entrance to each group is by audition.

Piano majors may fulfill the ensemble requirement through enrollment in a vocal ensemble, an instrumental ensemble, accompanying (MUS 110/120), or chamber music as a pianist.

Guitar majors may fulfill the ensemble requirement through enrollment in a vocal ensemble, an instrumental ensemble, or chamber music as a guitarist.

Complete foreign language requirement: two years are required. (Completion of 202 in any foreign language offered at Miami

University). Requirement may be met by a university proficiency exam.

Complete functional piano requirement: MUS 161 or proficiency exam required.

Seven semesters of recital attendance: MUS 140.

One semester of chamber music experience: MUS 139.

It is the responsibility of the student to check to see that all university requirements have been fulfilled.

## 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 fall or spring semester of the senior year. During this semester, a student teacher 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 Global Miami Plan for Liberal Education or consult the Honors program requirements in the Bulletin according to your catalog year.

Complete department requirements.

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
MUS 112 Lab Choir (1, 1)  
MUS 142 Applied Music (2, 2)  
MUS 151/152 Sightsinging and Dictation (1, 1)  
MUS 175 Introduction to Music Education (3)  
MUS 185 The Diverse Worlds of Music (3)\*  
MUS 201/202 Theory of Music (3, 3)  
MUS 211/212 History of Western Music (3, 3)  
MUS 221 Music Technologies (3)\*  
MUS 222 Music Education Technology (1) (taken concurrently with MUS 221)  
MUS 226 Improving Reading through the Music Content Area (3)  
MUS 235 Lyric Diction (2)  
MUS 242 Applied Music (2, 2)  
MUS 249 Classroom Instruments: World Percussion/Guitar (1)  
MUS 251/252 Sightsinging and Dictation (1, 1)  
MUS 275 Sophomore Practicum in Music Education (1)  
MUS 342 Applied Music (2, 2)  
MUS 351 Choral Techniques (3)  
MUS 352 Conducting I (2)  
MUS 354 Conducting II (2)  
MUS 355 General Music Teaching Techniques: Early Childhood and Elementary (3)  
MUS 356 Secondary General Music Techniques (2)  
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)  
EDP 201 Human Development and Learning in Social and Educational Contexts (3)\*  
EDL 204 Sociocultural Studies in Education (3)\*  
EDP 256 Psychology of the Exceptional Learner (3)  
EDP 301 Assessment and Evaluation in Educational Settings (3)  
\* Global Miami Plan Foundation course

Functional piano requirement: MUS 261.

Major instrument requirement:

Guitar: MUS 454 Guitar Repertory and Pedagogy (2)

Minor applied requirement: An applied major in piano, guitar 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: MUS 140.

One semester of Chamber Music Experience: MUS 139.

Large ensemble requirement: Enroll in a large choral ensemble each semester except semester of student teaching. Large choral ensembles are: Collegiate Chorale (MUS 100A), Choraliers (MUS 100D), Chamber Singers (MUS 100Q), and Men's Glee Club (MUS 100B). When meeting this requirement, students must complete at least 2 semesters in a mixed (SATB) ensemble (i.e., Collegiate Chorale (MUS 100A) or Chamber Singers (MUS 100Q).

Piano or guitar majors must enroll as a singer in choral ensembles at least 3 semesters.

Instrumental methods requirement: Enroll in one instrumental methods course. Choose from MUS 231 Class Instruments (Brass) (1); MUS 232A Class Instruments (Woodwinds I) (1); MUS 232B Class Instruments (Woodwinds II) (1); MUS 234A Class Instruments (Strings I) (1); MUS 234B Class Instruments (Strings II) (1).

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 GPA of 2.25 and minimum GPA 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 GPA of 2.25 and minimum GPA 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 GPA of 2.25, minimum GPA of 2.80 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, 354, 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 Global Miami Plan for Liberal Education or consult the Honors program requirements in the Bulletin according to your catalog year.

Complete department requirements; your fourth year semesters are interchangeable.

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
MUS 111 Lab Band (1, 1)  
MUS 142 Applied Music (2, 2)  
MUS 151/152 Sightsinging and Dictation (1, 1)  
MUS 175 Introduction to Music Education (3)  
MUS 185 The Diverse Worlds of Music (3)\*  
MUS 201/202 Theory of Music (3, 3)  
MUS 211\*/212 History of Western Music (3, 3)  
MUS 221 Music Technologies (3)\*  
MUS 222 Music Education Technology (1) (taken concurrently with MUS 221)  
MUS 226 Improving Reading through the Music Content Area (3)  
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 342 Applied Music (2, 2)  
MUS 345 Elementary General Music for Instrumental Music Education Majors (1) or  
MUS 355 General Music Teaching Techniques: Early Childhood and Elementary (3)  
MUS 352 Conducting I (2)  
MUS 354 Conducting II (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 Senior Practicum in Music Education (3)  
 EDL 204 Sociocultural Studies in Education (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)  
 \* Global 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. Guitar instrument majors substitute MUS 454 Guitar Repertory and Pedagogy (2) for MUS 358.

Seven semesters of recital attendance requirement: MUS 140.

One semester of Chamber Music Experience: MUS 139.

Functional piano requirement: MUS 261.

Minor applied requirement: An applied major in piano or guitar is required to take four hours of private lessons in band or orchestral instrument in addition to major applied study.

Large ensemble requirement: Enroll in a large instrumental ensemble, in one's primary performance medium, each semester except semester of student teaching. Large instrumental ensembles are Marching Band (MUS 100E), Symphonic Band (MUS 100F), University Orchestra (MUS 100C), and Wind Ensemble (MUS 100G). Entrance to each group is by audition. Piano majors may fulfill the ensemble requirement through enrollment in a vocal ensemble, an instrumental ensemble, accompanying (MUS 110/120), or chamber music as a pianist. Guitar majors may fulfill the ensemble requirement through enrollment in a vocal ensemble, an instrumental ensemble, or chamber music as a guitarist.

In addition, instrumental music education students must participate in a major choral ensemble for one semester (selected from Collegiate Chorale, MUS 100A; Choraliers, MUS 100D; Chamber Singers, MUS 100Q; and Men's Glee Club, MUS 100B.) In the event that a student is not selected for one of these ensembles by audition, Lab Choir, MUS 112, will be approved as a course substitution.

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 GPA of 2.25 and minimum GPA 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 GPA of 2.25 and minimum GPA 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 GPA of 2.25, minimum GPA of 2.80 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 and guitar 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 Global Miami Plan for Liberal Education or consult the Honors program requirements in the Bulletin according to your catalog year.

Complete department requirements.

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
 MUS 144A Applied Music (Voice) (3, 3)  
 MUS 151/152 Sightsinging and Dictation (1, 1)  
 MUS 185 The Diverse Worlds of Music (3)\*  
 MUS 201/202 Theory of Music (3, 3)  
 MUS 211/212 History of Western Music (3, 3)  
 MUS 221 Music Technologies (3)\*  
 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 344A Applied Music (Voice) (3,3)  
 MUS 352 Conducting I (2)  
 MUS 420 Vocal Coaching (1, 1)  
 MUS 425 Grand Night: The Great American Songbook (1)  
 MUS 426 Opera Production  
 MUS 444A Applied Music (Voice) (3, 3)  
 MUS 451/452 Sightsinging and Dictation (1, 1)  
 MUS 456 Vocal Pedagogy (2)  
 MUS 493 Capstone Senior Recital Preparation (3)  
 MUS 494 Senior Recital (0)

\* Global Miami Plan Foundation course

Large ensemble requirement: Enroll in a large choral ensemble each semester. Large choral ensembles are: Collegiate Chorale (MUS 100A), Choraliers (MUS 100D), Chamber Singers (MUS 100Q), and Men's Glee Club (MUS 100B). Entrance to each group is by audition.

One registration of the MUS 426/526 (1) Opera Production course is required and one additional registration of either MUS 426/526 (1) Opera Production or MUS 425/525 (1) Grand Night: The Great American Songbook is required. Entrance to each course is by audition.

Seven semesters of recital attendance requirement: MUS 140.

One semester of chamber music experience: MUS 139.

Functional piano requirement: MUS 261.

Language requirement: One year in French, German, or Italian, in addition to Lyric Diction; may be met by university 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 (no credit: register for MUS 494).

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 Global Miami Plan for Liberal Education or consult the Honors program requirements in the Bulletin according to your catalog year.

Complete department requirements.

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
 MUS 144 Applied Music (3, 3)  
 MUS 151/152 Sightsinging and Dictation (1, 1)  
 MUS 185 The Diverse Worlds of Music (3)\*  
 MUS 201/202 Theory of Music (3, 3)  
 MUS 211/212 History of Western Music (3, 3)  
 MUS 221 Music Technologies (3)  
 MUS 244 Applied Music (3, 3)  
 MUS 251/252 Sightsinging and Dictation (1, 1)  
 MUS 301 Counterpoint (3)  
 MUS 302 Analysis (3)

MUS 344 Applied Music (3, 3)  
 MUS 352 Conducting I (2)  
 MUS 444 Applied Music (3, 3)  
 MUS 451/452 Sightsinging and Dictation (1, 1)  
 MUS 493 Capstone Senior Recital Preparation (3)  
 MUS 494 Senior Recital (0)

\* Global Miami Plan Foundation course

Large ensemble requirement: Enroll in a large instrumental ensemble, in one's primary performance medium, each semester. Large instrumental ensembles are: Marching Band (MUS 100E), Symphonic Band (MUS 100F), University Orchestra (MUS 100C), and Wind Ensemble (MUS 100G). Entrance to each group is by audition. Piano majors may fulfill the ensemble requirement through enrollment in a vocal ensemble, accompanying (MUS 110/120), or chamber music as a pianist. Guitar majors may fulfill the ensemble requirement through enrollment in a vocal ensemble, an instrumental ensemble, or chamber music as a guitarist.

Seven semesters of recital attendance requirement: MUS 140.

One semester of chamber music experience: MUS 139.

Functional piano requirement: MUS 261.

Performance requirement: Half recital, junior year (no credit); full recital, senior year (no credit: register for MUS 494).

Major instrument requirements:

Piano: MUS 110, 120, or 100I/100J Accompanying or Chamber Music (1,1) Music 110/120 -Fulfills either accompanying requirement or large ensemble requirement in a single semester, but not both.

MUS 430 Piano Pedagogy (2)

MUS 457/458 Piano Literature (3, 3) (MUS 457 - offered even-numbered fall semesters; MUS 458 - offered odd-numbered Spring semesters)

Strings: MUS 433 String Pedagogy (1) (offered even-numbered Spring semesters)

MUS 100I Chamber Music (1,1)

Percussion: MUS 100M Percussion Ensemble (1, 1)

Guitar: MUS 454 Guitar Repertory and Pedagogy (2)

It is the responsibility of the student to see that all university requirements are fulfilled.

you've played on the stage, character journals or process journals you've kept, photos of set pieces, props or costumes you've built, set sketches, models, renderings, drafting or mechanical drawing (hand or CAD), costume sketches, renderings, light plots and/or images of lighting you've designed, choreography notations, parts of prompt book, sound recordings of original compositions or effect manipulation, essays or research papers on theatre or drama, or any class project relating to theatre, digital movies you've made, web pages you've built.

At the interview, theatre faculty will discuss your interest in theatre.

## Program Requirements

(128 semester hours)

**Please note that courses listed in more than one category may only be used to fulfill ONE requirement.**

**Take all of these core courses (21 semester hours):**

THE 101 Introduction to Theatre: Drama and Analysis (3)\*

THE 103 Introduction to Theatre: Production and Performance (1)\*

THE 107 The Theatre Major: an Introduction to Theatre Resources and Skills (1)

THE 131 Principles of Acting (3)

THE 251 Visual Communication for the Theatre (3)

THE 291 World Stages and Performances I (3)

THE 292 World Stages and Performances II (3)

THE 301 Professional Practice in Theatre (1)

THE 341 Fundamentals of Directing (3)

\* Global Miami Plan Foundation course

**Choose four (4) hours in theatre technology:**

THE 255 Fundamentals of Scenery Construction and Props (3) and

THE 207 Scenery and Props Lab (1) **or**

THE 253 Costume Fundamentals (3) and

THE 205 Costume Construction Laboratory (1) **or**

THE 254 Lighting Fundamentals (3) and

THE 206 Theatre Lighting Laboratory (1) **or**

THE 258 Scene Painting Fundamentals (3) and

THE 208 Scene Painting Laboratory (1)

**Category A: Choose nine (9) hours**

THE 151 Stage Makeup (1)

THE 205 Costume Construction Laboratory (1)

THE 206 Theatre Lighting Laboratory (1)

THE 207 Scenery and Props Lab (1)

THE 208 Scene Painting Laboratory (1)

THE 210 The Theatrical Toolbox (1-2; maximum 3)

THE 231 Scene Study (3)

THE 238 Playwriting Through Improvisation Techniques (3-4; maximum 4)

THE 243 Movement and Voice for Actors (3)

THE 252 Technical Production (3)

THE 254 Fundamentals of Lighting and Sound (3)

THE 255 Fundamentals of Scenery Construction and Props (3)

THE 258 Scene Painting Fundamentals (3)

THE 314 Playwriting (4)

THE 340 Internship (1-3)

THE 342 Stage Management (2)

THE 343 Speech and Dialects (3)

THE 432/532 Acting Shakespeare (3)

THE 437/537 Auditions (2)

THE 439/539 Special Techniques for the Actor (3; maximum 6)

THE 441/541 Methods/Styles of Play Directing (3)

THE 450/550 Special Topics in Theatre Design and Technology (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 465/565 Collaboration in Theatre Design & Technology (2)

**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)

THE 494 London Theatre (3)

**Complete five (5) experiences of production practicum:**

THE 200 Production and Performance Practicum (1; maximum 8)

THE 400 Advanced Production and Performance Practicum (2; maximum 4)

## 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. All courses must be taken for a grade.

## Special Admission Requirements: Theatre Majors:

In addition to the general university application, you should complete a separate departmental application and arrange an audition/interview with the department. Special admission on the basis of outstanding talent is available. You can submit a department application and schedule an on-campus interview at [www.MiamiOH.edu/theatre](http://www.MiamiOH.edu/theatre), or call the department office at 513-529-3053. Interview materials can also be sent in by mail.

At the interview you must present two different examples of creative work you have done, whether in theatre or other related disciplines. These may include: stories, plays, creative writing, a monologue or song, pictures of three dimensional art (ceramics, sculpture, mixed media), two dimensional art you've created (drawing, painting, photography), biographies of characters

## Armstrong Institute for Interactive Media Studies

AIMS is the Armstrong Institute for Interactive Media Studies. AIMS empowers students, faculty, and industry to innovate through digital disruption and emerging technology. AIMS is a "horizontal program" that crosses all of Miami University, with faculty, students, and labs in all of the divisions: Arts & Science, Business, Creative Arts, Education, Engineering, and Libraries. AIMS offers a major in the College of Creative Arts, a co-major and minors, including a game minor in the College of Arts and Science as well as a number of graduate offerings.

AIMS emphasizes cross-functional knowledge and places a heavy emphasis on making. Students in AIMS develop depth in areas as diverse as web and app design/development, user experience design, social media, digital marketing, design thinking, visualization, game design and development, games and learning, digital and algorithmic art, robotics, mechatronics, mobile development, and digital entrepreneurship.

## Interactive Media Studies Bachelor of Arts in Interactive Media Studies

For information, contact the Interactive Media Studies program, 203 Laws Hall (513-529-1637) or see <http://aims.MiamiOH.edu>.

The BA in Interactive Media Studies (IMS) is an interdisciplinary degree designed to provide depth in theory and practice of interactive & digital design, development, innovation, and disruption. Grounded in Miami University's tradition of liberal education, the BA in IMS represents the liberal arts of the 21st Century, providing a foundation in information and digital literacy, from multimedia authorship/critical theory to digital and social media marketing, from app development to code-based art, from game studies to user-experience design, and more. This grounding is then complemented with a focused area of depth in one of many areas of scholarly interest in IMS.

Students apply directly to the major in Interactive Media Studies. At the end of the first-year, students must have a 2.50 GPA and a formal admission interview to continue in the program. There is no portfolio requirement.

The BA in IMS has four pillars: a foundation, depth in making and analyzing, an advanced track, and then a set of experiences that cap the major, including a thesis, internship, and culminating course.

**Foundation** – These courses provide a common language, skill base, and theoretical foundation in digital writing, information literacy, programming, and design.

**Making and Analyzing** – It is important for IMS students to be equally as knowledgeable in making digital product as they are in critically evaluating and strategically using it. Students are required to take three courses from a list of "making courses" and three courses from a list of "analyzing courses"

**Advanced Track** – All IMS students work with an advisor to propose a set of courses to determine the "advanced track". This track is a list of courses that thematically explore the student's interest more deeply. Students propose a track or explain how they are using an existing track, as part of the "IMS Colloquium", that occurs once each semester. At the IMS Colloquium, the student briefly presents both their list of courses and rationale. Students receive feedback on the plan, which is then finalized in consultation with the IMS advisor, who signs off on the plan.

**Upper-Level Requirements** – In the final semesters IMS students are required to participate in several different experiential learning opportunities. These include a project management

course, a required internship (which can take place over the summer or during the school year), participation in Armstrong Interactive, the IMS client-based capstone, where students work on a project from an external client as part of an interdisciplinary team, as well as a senior thesis, where, in concert with their advisor, the students will develop and ultimately present a completed undergraduate thesis of scholarly/creative merit.

### Program Requirements

(54 Credit Hours in the Major)

**IMS Major Foundation:** Take all four courses, 12 hours total  
 ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)  
 IMS 201 Information Studies in the Digital Age (3)  
 IMS 254 Design Principles Applied (3)  
 IMS 257 Web Interaction Programming (3)

### Elective Courses

**IMS Major Foundation Tracks:** Take 3 courses/9 hours in each list, 18 hours total

#### Making Track:

IMS 212 The Design of Play (3)  
 IMS 222 Web and Interaction Design (3)  
 IMS 253 Building Interactive Objects (3)  
 IMS/ART 259 Art and Digital Tools I (3)  
 IMS 356 Interactive Animation (3)  
 IMS 461 Advanced 3D Visualization and Simulation (3)

#### Analyzing Track:

IMS 211 The Analysis of Play (3)  
 IMS/ENG 238 Narrative and Digital Technology (3)  
 IMS 261 Information and Data Visualization (3)  
 IMS 413/513 Usability and Digital Media Design (4)  
 IMS 414/514 Web and Social Media Analytics (3)  
 IMS/MKT 419 Digital Branding (3)  
 MAC 143 Introduction to Media (3)

**Advanced Track: Choose a Pre-Designed Track and design your own with advisor approval, Take 4 courses, 12 hours total**

If a track is pre-approved (below) you can begin the track without advisor approval. If you would like to design their own track from the list of track courses (and/or other courses that might be available throughout the university) you are required to meet with your assigned AIMS advisor to get "sign-off" on the track no later than immediately following completion of the first course in the track. All/any modifications to pre-approved tracks and/or self-designed tracks need to be approved by the Chief Departmental Advisor (CDA) of AIMS. IMS 390 Special Topics and IMS 490/590 Advanced Topics can be used with CDA approval. Topics can be used with CDA approval.

(Courses from the Making and Analyzing foundation tracks can also be used in the advanced track, but they must be in addition to those hours – no double-dipping).

### Pre-Approved Tracks:

#### Game Design

IMS 212 The Design of Play (3)  
 IMS 319 Foundations in Digital 3-D Modeling and Animation (3)  
 IMS 445 Game Design (3)  
 IMS 487 Game Prototyping, Pipeline and Production (3)

#### Game Development

CSE 251 Introduction to Game Programming (3)  
 IMS 259 Art and Digital Tools I (3)  
 IMS 445 Game Design (3)  
 IMS 487 Game Prototyping, Pipeline and Production (3)

#### Game Studies

IMS 211 The Analysis of Play (3)  
 IMS 225 Games and Learning (3)  
 IMS 238 Narrative and Digital Technology (3)  
 IMS 487 Game Prototyping, Pipeline and Production (3)

#### Interactive Business

IMS 407 Interactive Business Communication (3)  
 IMS 414 Web and Social Media Analytics (3)  
 IMS 418 Social Media Marketing and Online Community Management (3)  
 IMS/MKT 419 Digital Branding (3)

#### Art and Interaction

ARC 404 Seminars (1-3)  
 ART 259 Art and Digital Tools I (3)  
 IMS/MUS 221 Music Technologies (3)  
 IMS 303 Online Journalism (3)  
 IMS 319 Foundations in Digital 3-D Modeling and Animation (3)

#### Web Development and Design

IMS 222 Web and Interaction Design (3)  
 IMS/ART 359 Art and Digital Tools II (3)  
 IMS 356 Interactive Animation (3)  
 IMS 413 Usability and Digital Media Design (4)

**Animation**

IMS/ART 259 Art and Digital Tools I (3)  
 IMS/ART 359 Art and Digital Tools II (3)  
 IMS 356 Interactive Animation (3)  
 IMS 319 Foundations in Digital 3-D Modeling and Animation (3)

**Comparative Media Studies**

CMS 201 Introduction to Comparative Media (3)  
 CMS 301 Comparative Approaches to Media Studies (3)  
 MAC 211 Introduction to Video Production (4)  
 MAC 212 Media, Representation, and Society (3) **or**  
 MAC 355 Media Technology & Culture (3)

**IMS Major Upper-level Requirements:** Take all 4 courses, 12 hours total

ART/IMS 340 Internship (1-3, maximum 6)  
 IMS 355 Principles and Practices of Managing Interactive Projects (3)  
 IMS 452 Senior Degree Project (3)  
 IMS 440/550 Interactive Media Studies Practicum (4)

## Creative 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 overall 2.00 GPA is required for courses in a minor. All courses must be taken for a letter grade. 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 advisor and to obtain a list of the most recent requirements. The required semester hours are in parentheses beside each minor.

## 2 D 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 2.50 GPA 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 Graphic Media I (2)  
 CEC 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)

**Painting I**

ART 231 Painting I (3)  
 ART 331 Painting II (3)  
 ART 332 Painting III (3)

**Printmaking I**

ART 241 Printmaking I (3)  
 ART 341 Printmaking II (3)  
 ART 342 Printmaking III (3)

## 2 D Media Studies for Art Education Majors

(18 hours minimum)

To provide 2D media studio depth and focus to Art Education majors 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 2.50 GPA 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 Graphic Media I (2) **or**  
 ARC 114 Graphic Media II (2)  
 CEC 102 Problem Solving and Design (3)

**Take one of these: (3 hrs. total)**

ART 121 Drawing I (3)  
 ART 122 Drawing II (3)

**Take one of these: (3 hrs. total)**

ART 231 Painting I (3)  
 ART 241 Printmaking I (3)  
 ART 257 Photography (3)

**Complete NINE hours from focus tracks, (at least 6 of the 9 hours in one track):**

**Photography I**

ART 357 Photography II (3)  
 ART 358 Photography III (3)  
 ART 457 Photography IV (3)

**Painting I**

ART 332 Painting III (3)  
 ART 431 Painting IV (3)  
 ART 390 Supplemental Problems (1-3) **or**  
 ART 490 Supplemental Problems (1-3)

**Printmaking I**

ART 341 Printmaking II (3)  
 ART 342 Printmaking III (3)  
 ART 441 Printmaking IV (3)

## Art and Architecture History

(18 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 art and architecture history establishes a foundation for further study in these areas and provides a better understanding of architecture, art and visual culture in historical contexts and the contemporary world. Knowledge in these areas is a valuable complement to any liberal arts, business or science major.

### Program Requirements

#### Two of the following Miami Plan courses:

ARC 107 Global Design (3)  
 ARC 221, 222 History of Architecture I, II (3, 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 (3)

#### Four of the following upper division courses:

ARC 221, 222  
 ARC 321  
 ARC 422, 426, 427, 451, 452  
 ARC 405  
 ART 235, 276, 278; ART 279 or JPN 279; ART 283, 286  
 ART 309, 311, 312, 313, 314, 315, 316, 317, 318, 319, 381, 382, 383, 386, 389  
 ART 455, 485, 486, 487, 489  
 ART 480  
 CLS 244  
 CLS 323, 332

**NOTE:** Complete at least one course in architecture history (ARC) and one in art history (ART) from the choices above. A single course cannot fill requirements in more than one area.

## Arts Management

(19 semester hours)

For information, contact the advisor in the College of Creative 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 advisor to plan your minor.

A minimum overall 2.00 GPA is required for 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:

CCA 182 Experiencing the Arts (1 - repeatable)  
 CCA 201 Introduction to Arts Management (3)  
 CCA 340 Arts Management Internship (3)  
 CCA 410 Advanced Topics in the Creative Arts (1-4)

### Program Requirements: Business Majors (9 hours)

#### Select six (6) hours from the following:

ARC 188 Ideas in 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 Experiencing Theatre (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 (0 or 1)  
 MUS 100B Men's Glee Club (0 or 1)  
 MUS 100C Symphony Orchestra (0 or 1)  
 MUS 100D Choraliers (0 or 1)  
 MUS 100E Marching Band (0 or 1)  
 MUS 100F Symphonic Band (0 or 1)  
 MUS 100G Wind Ensemble (0 or 1)  
 MUS 100U Basketball/Hockey Band (0 or 1)  
 MUS 100H Chamber Music - Brass (0 or 1)  
 MUS 100R Chamber Music Winds - Jazz (0 or 1)  
 MUS 100S Cello Choir (0 or 1)  
 MUS 100K Jazz Ensemble (0 or 1)  
 MUS 100N Steel Band (0 or 1)  
 MUS 100P Chamber Orchestra (0 or 1)  
 MUS 100M Percussion Ensemble (0 or 1)  
 MUS 100X Marching Band Percussion Ensemble (0 or 1)  
 MUS 100I Chamber Music Strings (0 or 1)  
 MUS 100T Trumpet Ensemble (0 or 1)  
 MUS 100Q Chamber Singers (0 or 1)  
 MUS 320 Opera Production (2)  
 THE 123 Acting for the Non-Major: Text and Performance (3)\*  
 THE 200 Production and Performance Practicum (1-8)

\* Global Miami Plan Foundation course

### 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) (ECO 201 is a prerequisite for this course)

\* Global Miami Plan Foundation course

\*\* Global Miami Plan Capstone course

#### Option 2 - Students must declare the Entrepreneurship thematic sequence to have access to this option.

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)

## Ceramics

(18 semester hours)

For information, contact the Department of Art, 124 Art Building (513-529-2900).

The Ceramics Minor explores and develops concepts, techniques, materials methods, and critical aesthetic thinking as applied to the process of making three-dimensional objects in clay. 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.

A minimum 2.50 GPA 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 Beginning Design Studio (5)  
CEC 102 Problem Solving and Design (3)

#### Ceramics courses (fifteen hours):

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)

## Dance

(18 credit hours)

For information, contact the advisor in the Department of Theatre, 204 Center for the Performing Arts (513-529-1228).

The Dance Minor is offered through the Department of Theatre. The minor offers students the opportunity to pursue the specialized skills necessary for dance performance. Students will complete courses in dance technique, performance, dance history, and production/design; and integrate learning through involvement with dance concerts and/or music theatre productions. The minor is intended to provide curriculum and instruction in the area of dance as well as enhance current musical theatre and theatre curricula and programming.

### Program Requirements

#### Required courses (13 hours):

KNH 110A Beginning Ballet (2) \*  
KNH 110G Modern Dance (2) \*  
KNH 244 Functional Anatomy (3)  
KNH 244L Functional Anatomy Laboratory (1)  
THE 351 Dance History (3)

#### Students choose either an intermediate ballet course or an intermediate modern course.

THE 261 Intermediate Ballet (2)  
THE 262 Intermediate Modern Dance (2)

#### Electives (5-6 hours):

CCA 201 Introduction to Arts Management (3)  
CCA 231 Dance for the Musical Stage (3)  
THE 123 Acting for the Non-Major: Text and Performance (3)  
THE 271 Dance Theatre Practicum (1; maximum 2)  
THE 454/554 Lighting Design (3)

\* courses offered credit/no-credit only

## Fashion Design

(19 credit hours)

For information, contact the advisor in the College of Creative Arts, 123 Center for Performing Arts (513-529-9838).

The minor in Fashion with a concentration in Design, emphasizes creativity and experimentation, and offers students the opportunity to develop basic skills in design language, pattern-making and garment construction. It includes historical and narrative contexts, marketing, runway experience, and opportunities to build skills in cognate studio areas, such as costume design, jewelry design, accessories, illustration, CAD, and applied international fashion design experience. The minor is administered through the College of Creative Arts Dean's Office.

### Program Requirements:

#### Design Concentration Core (12 hours):

ART 233 Global Perspectives on Dress (3) **or**  
ART 189 History of Western Dress (3)

MKT 291 Principles of Marketing (3)  
THE 253/205 Costume Fundamentals/Costume Construction Laboratory (3, 1)

#### One design course selected from the following:

ARC 101 Beginning Design Studio (5)  
ARC 102 Beginning Design Studio (5)  
ARC 113 Methods of Presentation, Representation and Re-Presentation (2)  
ARC 114 Methods of Presentation, Representation and Re-Presentation (2)  
ART 111 Visual Fundamentals (3)  
ART 121 Drawing I (3)  
ART 171 Visual Fundamentals: 3-D (3)

#### Practicum:

CCA 444 Fashion Runway (0)

#### Electives:

#### Students choose 6 or more hours from the courses listed below to fulfill the minor:

ART 165 Beginning Metals (1)  
ART 264 Jewelry Design and Metals I (3)  
ART 350 Illustration (3; maximum 6)  
CCA 422 International Fashion Workshop (6)  
THE 453 Costume Design (3)

## Graphic Design

(18-19 credit hours)

For information, contact the advisor in the College of Creative Arts, 125 Center for Performing Arts (513-529-1490).

The minor in graphic design produces students with basics skills in typography, image creation/manipulation, layout within print and interactive environments, visual presentation, prototyping, and general branding skills. The prospective audience for this degree are individuals who seek a basic understanding of design principles and communication skills that complement the student's major degree.

### Program Requirements

#### Prerequisite for admission to the minor

#### Take this course:

ART/IMS 259 Art and Digital Tools I (3)

#### Core Courses:

#### Take these three courses in any order:

ART 343 The Art of Visual Presentation (3)  
ART 344 Personal Branding (3)  
ART 345 Graphic Design Prototyping (3)

#### Electives:

#### Select nine/ten hours from the following (none of these courses have prerequisites, but some require permission of instructor/application):

CCA 111 Innovation, Creativity and Design Thinking (3)  
ART 256 Design, Perception & Audience (3)  
ART 353 The Business of Design (3)  
ART 453 Highwire Brand Studio (4)  
ART 455 Design History and Cultural Contexts (3) (application for admission)  
IMS 440 Interactive Media Studies Practicum (4) (application for admission)

## Jewelry Design and Metals

(18 semester hours)

For information, contact the Department of Art, 124 Art Building (513-529-2900).

The Jewelry Design and Metals Minor explores and develops concepts, techniques, materials methods, and critical aesthetic thinking as applied to the process of making three-dimensional objects and adornment in metal and alternative materials. 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.



A minimum 2.50 gpa is required for admittance to the minor and is required for all courses in the minor. Courses must be taken for a grade (not credit/no-credit). Students planning to take this minor must consult with the lead professor.

### Program requirements:

#### Take one of the following (three hours total):

ART 171 Visual Fundamentals: 3-D (3)  
ARC 102 Beginning Design Studio (5)  
CEC 102 Problem Solving and Design (3)

#### Jewelry Design and Metals courses (fifteen hours):

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)

## Landscape Architecture

(22 semester hours)

**Note:** The landscape architecture minor is under review at this time and students may not declare the minor. Some landscape courses are available. For questions, contact the Department of Architecture and Interior Design, 101 Alumni Hall (513-529-7210).

## Music Composition

(23 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. Open to music majors and non-majors.

Students interested in pursuing the minor in music composition must complete MUS 101/102 and 151/152 prior to admission. Following this coursework, the student should submit their grades in these courses along with two compositions (either in score form or MP3 files) to Professor Roger Davis, coordinator of the composition program.

### Program Requirements

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
MUS 151/152 Sightsinging and Dictation (1, 1)  
MUS 201 Theory of Music (3)  
MUS 221 Music Technologies (3)  
MUS 371-372 Composition (3, 3)

#### Choose ONE of these:

MUS 301 Counterpoint (3)  
MUS 303 Electronic Music (3)

## Music History

(24 semester hours)

For information, contact the Department of Music, 109 Presser Hall (513-529-3014).

Not open to music majors.

### Program Requirements

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
MUS 201 Theory of Music (3)  
MUS 211-212 History of Western Music (3, 3)

#### Choose ONE course from the following:

MUS 135 Understanding Jazz, Its History and Context (3)  
MUS 186 Global Music for the I-Pod (3)

MUS 188 The Music of Russia (3)  
MUS 285 Introduction to African American Music (3)  
MUS 287 Enter the Diva: Women in Music (3)

#### Choose TWO additional music history courses (3, 3) at the 200-level or higher.

#### The courses should be selected from:

MUS 285 Introduction to African American Music (3)  
MUS 287 Enter the Diva: Women in Music (3)  
MUS 385 The Roots of Black Music: Blues, Gospel and Soul (3)  
MUS 386 The History and Development of Hip Hop Culture in America (3)  
MUS 461 American Music (3)  
MUS490 Special Topics in Music (1-4; maximum 12)

## Music Performance

(23 semester hours)

Admission Procedures: An audition is required for this program. For information, contact the Department of Music, 109 Presser Hall (513-529-3014). This minor is not open to music performance and music education majors.

Advisor: see the applied music teacher of your instrument. At this time there is no voice performance minor.

### Program Requirements

#### All of these:

MUS 101/102 Theory of Music (3, 3)  
MUS 151/152 Sightsinging and Dictation (1, 1)  
MUS 189 Great Ideas in Western Music (3)\*

\* Global Miami Plan Foundation course

Applied music requirement: 10 semester hours, includes one semester at 342 level (students must perform a half-recital in this semester).

Ensemble requirement: Four semesters in a large ensemble, in primary performance medium (Chamber Singers, Choraliers, Collegiate Chorale, Marching Band, Men's Glee Club, Symphony Band, University Symphony Orchestra, and Wind Ensemble). Entrance to each group is by audition. Piano performance minors may fulfill the ensemble requirement through participation in a large vocal ensemble, large instrumental ensemble, accompanying (MUS 110/120), or chamber music as a pianist.

## Music Theatre

(21 semester hours)

For information, contact the Department of Music, 109 Presser Hall (513-529-3014) or the Department of Theatre, Center for Performing Arts (513-529-3053).

This minor offers students the opportunity to pursue the specialized skills necessary for performance in music theatre: acting, singing and dancing. Students will complete courses in these 3 distinct disciplines, as well as integrate them in an upper-level acting course and through participation in productions. The minor is designed to enhance the current music and theatre major curricula. Admission to the minor is open to Music and Theatre majors by audition only. Students pursuing a minor in Music Theatre must demonstrate continuance and satisfactory progress toward their Music or Theatre major. All courses in the minor must be taken for a grade\*; a minimum GPA of 2.00 is required in a minor.

### Core requirements for Music and Theatre Majors (14 hrs)

#### All Music Theatre Minors must take the following core classes (12 hours):

CCA 231 Dance for the Musical Stage (3)  
CCA 331 Acting for the Musical Stage (3)  
KNH 110A Beginning Ballet (2)  
THE 151 Stage Makeup (1)  
THE 395 American Musical I: A History to 1950 (3) or  
THE 396 The American Musical II: A Contemporary History 1950-2005 (3)

\*KNH 110A is offered credit/no credit only

\*\*Theatre majors may NOT use these courses in their major requirements.

#### All Music Theatre Minors must participate in two productions, selected from Musical Theatre, Opera, and Grand Night for Singing (2 hours):

MUS 100 Opera Production (1)  
THE 200 Production and Performance Practicum (1)

**PROGRAM REQUIREMENTS: MUSIC MAJORS -VOICE (7 hrs)**  
THE 131 Principles of Acting (3)

**Choose four (4) hours in Theatre Technology:**  
THE 255 Fundamentals of Scenery Construction and Props (3) and  
THE 207 Scenery and Props Lab (1) **or**

THE 253 Costume Fundamentals (3) and  
THE 206 Theatre Lighting Laboratory (1) **or**

THE 254 Fundamentals of Lighting and Sound (3) and  
THE 206 Theatre Lighting Laboratory (1) **or**

THE 258 Scene Painting Fundamentals (3) and  
THE 208 Scene Painting Laboratory (1)

**PROGRAM REQUIREMENTS: MUSIC MAJORS -INSTRUMENTALISTS (7 hrs)**

THE 131 Principles of Acting (3)  
MUS 215 Class Voice for Music Theatre (2)  
MUS 216 Applied Voice for Music Theatre (1, 1)

**PROGRAM REQUIREMENTS: THEATRE MAJORS (7 hrs)**

MUS 119 Introduction to Music Theory (3)  
MUS 215 Class Voice for Music Theatre (2)  
MUS 216 Applied Voice for Music Theatre (1, 1)

## Photography

(18 credit hours)

For information, contact the advisor in the College of Creative Arts, 125 Center for Performing Arts (513-529-1490).

The minor in Photography allows students to have an in-depth, comprehensive education in traditional black-and-white and digital image making processes. In this sequence of studio courses, students will learn about the technical, aesthetic, historical, and conceptual aspects of creative photography through practice, discussion, and critiques.

### Program Requirements

ART 255 Introduction to Digital Imaging (3)  
ART 257 Photography (3)  
ART 357 Photography II (3)  
ART 358 Photography III (3)  
ART 457 Photography IV (3)  
ART 458 Photography V (3)

## Sculpture

(18 semester hours)

For information, contact the Department of Art, 124 Art Building (513-529-2900).

The Sculpture Minor explores and develops concepts, techniques, materials methods, and critical aesthetic thinking as applied to the process of making three-dimensional objects, installations, and other forms of sculptural interactions. 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.

A minimum 2.50 GPA is required for admittance to the minor and is required for all courses in the minor. Courses must be taken for a grade (not credit/no-credit). Students planning to take this minor must consult with the lead professor.

### Program Requirements:

**Take one of the following (three hours total):**

ART 171 Visual Fundamentals: 3-D (3)  
ARC 102 Beginning Design Studio (5)  
CEC 102 Problem Solving and Design (3)

**Sculpture courses (fifteen hours):**

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)

## 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, theatre technology, design arts, and theatre history and analysis. Register your intent to pursue the minor with the chief departmental advisor. A minimum GPA 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 (9 hours):**

THE 101 Introduction to Theatre: Drama and Analysis (3)  
THE 103 Introduction to Theatre: Production and Performance (1)  
THE 200 Theatre Production and Performance (1, 1)  
THE 251 Visual Communication for the Theatre (3)

**Choose one (3 hours):**

THE 123 Acting for the Non-Major: Text and Performance (3)\*  
THE 131 Principles of Acting (3)

**Choose four (4) hours:**

THE 255 Fundamentals of Scenery Construction and Props (3) and  
THE 207 Scenery and Props Lab (1) **or**

THE 253 Costume Fundamentals (3) and  
THE 205 Costume Construction Laboratory (1) **or**

THE 254 Lighting Fundamentals (3) and  
THE 206 Theatre Lighting Laboratory (1) **or**

THE 258 Scene Painting Fundamentals (3) and  
THE 208 Scene Painting Laboratory (1)

**Category A: Choose three (3) hours**

THE 151 Stage Makeup (1)  
THE 205 Costume Construction Laboratory (1)  
THE 206 Theatre Lighting Laboratory (1)  
THE 207 Scenery and Props Lab (1)  
THE 208 Scene Painting Laboratory (1)  
THE 210 The Theatrical Toolbox (1-2; maximum 3)  
THE 231 Scene Study (3)  
THE 238 Playwriting Through Improvisation (3-4; maximum 4)  
THE 243 Movement and Voice for Actors (3)  
THE 252 Technical Production (3)  
THE 254 Lighting and Sound Fundamentals (3)  
THE 255 Fundamentals of Scenery Construction and Props (3)  
THE 258 Scene Painting Fundamentals (3)  
THE 314 Playwriting (4)  
THE 331 Advanced Scene Study (3)  
THE 340 Internship (1-16)  
THE 341 Fundamentals of Directing (3)  
THE 342 Stage Management (2)  
THE 343 Speech and Dialects (3)  
THE 432/532 Acting Shakespeare (3)  
THE 437/537 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 450/550 Special Topics in Theatre Design and Technology (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 465 Collaboration in Theatre Design & Technology (2)

**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 American Musical I: A History to 1950 (3)  
THE 396 The American Musical II: A Contemporary History 1950-2005 (3)  
THE 490 The Theatre and a Cultural Aesthetic (3)  
THE 491 Theatre History I (3)  
THE 492 Theatre History II (3)  
THE 493 American Theatre (3)  
THE 494 London Theatre (3)

\* Global Miami Plan Foundation course

## Urban Design

(22 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 22 semester hours completed with a 2.50 GPA. 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 405C Typology and Regionalism (3)  
ARC 405Q Housing Case Studies (3)  
ARC 422 History Of Urbanization (3)  
ARC 426 Architecture and Society (3)  
ARC 427 American City Since 1940 (3)  
ARC 435 Theory and History of Landscape Architecture (3)  
FSW 261 Diverse Families Across the Life Cycle (3) \*  
GEO 451 Urban and Regional Planning (3)  
GEO 454 Urban Geography (3)  
GEO 458 Cities of Difference (3)  
GEO 459 Advanced Urban and Regional Planning (3)  
POL 364 Federalism and Intergovernmental Relations (3)  
POL 467 Public Budgeting (3)  
POL 468 Public Personnel Administration (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 the following as approved by coordinator:

Independent Study/Field Study  
Municipal Internship

## Fine Arts Certificates

### Undergraduate Certificate in Design Thinking

The Design Thinking Certificate is offered by the Miami Design Collaborative, led by the College of Creative 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:

CCA 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.

# College 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

## Degrees and Majors Offered

### Bachelor of Science in Athletic Training

#### Bachelor of Science in Education in:

Chinese  
Chemistry  
Early Childhood  
Earth Science  
Earth Science/Chemistry  
Earth Science/Life Science  
French  
German  
Integrated English Language Arts  
Integrated Mathematics  
Integrated Social Studies  
Latin  
Life Science  
Life Science/Chemistry  
Middle Childhood Education  
Physical Science  
Spanish  
Special Education

### Bachelor of Science in Family Studies

### Bachelor of Science in Kinesiology and Health in:

Health Promotion  
Kinesiology  
Nutrition  
Sport Leadership and Management

### Bachelor of Science in Social Work

#### Minors in:

Child Studies  
Coaching  
Community-Based Leadership  
Educational Technology  
Family Relationships  
Nutrition  
Special Education  
Sport Management

#### Endorsement:

Reading Endorsement

#### Certificates:

Teaching English Language Learners (TELLs)

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, and 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 College 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 College 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, Academy of Nutrition and Dietetics (AND), 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 College 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 Academy of Nutrition and Dietetics (SAND), 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: 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 College of Creative Arts, are described in that chapter. Students preparing to teach art must plan their programs with an art education advisor in the Department of Art. Students interested in music education should consult an advisor in the Department of Music.

## Advising

Undergraduate academic advising for the College of Education, Health and Society (EHS) is conducted through the department of the student's major. Freshmen work with their FYA

## General Information

The College 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.

(first year advisor) or the department CDA (chief departmental advisor) or undergraduate coordinator prior to acceptance into a major. Once accepted into a major (usually sophomore or junior year) students are assigned faculty advisors in their major.

## Information for Education Majors

### Earning a Teaching License

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. Programs in the Teacher Education and Educational Psychology departments are approved by the Ohio Department of Education. Each program, when combined with a baccalaureate degree, makes the candidate eligible for the Ohio teaching license in a selected teaching field.

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.

### 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. Students must provide proof of a criminal background check before beginning student teaching. Placement arrangements **cannot** be completed until the background check has been received.

Student teaching application forms are available on-line. Forms must be filled out and returned to the student teaching office by January prior to the student teaching year.

### Endorsements

#### 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. See the Graduate Field of Study section of the Bulletin for information on the following endorsement:

Early Childhood Generalist 4-5 Endorsement

Middle Childhood Generalist 4-5-6 Endorsement

### Certificates

#### Teaching English Language Learners (TELLs)

Teaching English Language Learners (TELLs) Certificate provides undergraduate teacher licensure candidates the

knowledge, skills, and experiences that will prepare them to meet the challenges of English language learners in their classrooms. The TELLs Certificate consists of an infusion portfolio, field-based experiences with language learners, a three course focus sequence and a cultural and social justice course. Open to all teacher licensure majors.

#### Program Requirements:

##### Required Courses:

EDT 221 Teaching English Language Learners in PK-12: Culture & Second Language Acquisition (3)  
EDT 323 Teaching English Language Learners in PK-12: Instructional Theories & Practices (3)  
EDT 425 Teaching English Language Learners in PK-12: Active Learning & Literacy (3)

##### Electives:

An elective course in cultural diversity or social justice

## 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 Department of Education. Each program, when combined with a baccalaureate degree, makes the candidate eligible for the 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 five major content areas (math, science, English, social studies and foreign language) 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 programs are required to participate in supervised clinical and field experience which involves travel to area schools, and are regularly assessed during the licensure program.

Students in the Department of Teacher Education must take the content area of the OAE examination before student teaching.

### 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 2013-14, Science 2014-15, Middle Childhood Language Arts and Science Fall 2015, Middle Childhood Math and Science Spring 2016, and Early Childhood Spring 2015 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 College 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 minimum 2.75 GPA 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 composite score of 21 or higher or SAT score (math and verbal) of 980 or above are exempt from taking Praxis I.

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 majors.

## 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

EDL 204 Sociocultural Studies in Education (3)  
EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
EDP 256 Psychology of the Exceptional Learner (3)  
EDP 279 Technology + Media Literacy and Learning (3)  
EDT 190 Introduction to Education (3)  
EDT 362 Social Sciences for Teachers II (4)  
FSW 261 Diverse Family Systems Across the Life Cycle (3)  
MTH 115 Mathematics for Early Childhood Teachers (4) (MPF V)  
MTH 116 Mathematics for Early Childhood Teachers (4)  
One fine arts elective (any ART, MUS, THE, or ARC) (3)  
EDT 419E Teaching Internship (15)

#### Choose ONE of the following:

EDT 181 Physical Science (4)  
EDT 182 Physical Science (4)

#### Block One - take the following concurrently:

EDT 246E Foundations of Reading, Language, and Literacy (3)  
EDT 272E Introductory Child Development: PreBirth through Age 8 (3)  
EDT 315E Teaching with Children's Literature Across the ECE Curriculum (3)  
KNH 245 Health Issues for Children (3)

### Block Two - take the following concurrently (after successful completion of Block One)

EDT 317E Teaching Science: Early Childhood (3)  
EDT 318E Mathematics in Early Childhood (3)  
EDT 442E Phonics, Word Study, and Spelling Instruction in ECE (3)  
EDT 417E Teaching Social Studies in the Early Childhood (3)  
EDT 474E Classroom Management & Student Guidance in Early Childhood (3)

### Block Three - take the following concurrently (after successful completion of Block Two)

EDL 318E Teacher Leadership and School Organization (3)  
EDT 346E Teaching Language and Literacy Across the ECE Curriculum (3)  
EDP 432 Assessment and Educational Planning for Children Age 3 to 8 (3)  
EDP 495E Inclusion and Adaptations for Mild/Moderate and Gifted Needs: Early Childhood (3)  
EDT 473E Early Childhood Synthesis: Negotiating the Complexities of Teaching (3)

## Middle Childhood Education Bachelor of Science in Education

### Requirements for all Middle Childhood Concentrations

#### All of these:

EDL 204 Sociocultural Studies in Education (3)  
EDL 318M Teacher Leadership and School Organization (3)  
EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
EDP 256 Psychology of the Exceptional Learner (3)  
EDP 279 Technology + Media Literacy and Learning (3)  
EDP 301M Assessment & Evaluation in Educational Settings (3)  
EDT 190 Introduction to the Teaching Profession (3)  
EDT 246M Foundations of Reading, Language and Literacy (3)  
EDT 252M Early Field Experience for Middle Childhood Education (3)  
EDT 346M Reading Instruction in Middle Childhood (3)  
EDT 421M Classroom Management (3)  
EDT 442M Phonics and Reading Improvement in Middle Grades (3)  
EDT 448M Reading Practicum in the Middle Grades (3)  
EDT 419 Teaching Internship (1-16)

#### Choose ONE of the following:

AMS 205 Introduction to American Cultures (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)  
WGS 201 Introduction to Women's Studies (3)

#### Choose TWO of these (depending on content areas chosen):

EDT 436 Middle Childhood Language Arts (3)  
EDT 429M Middle Childhood Mathematics (3)  
EDT 439 Middle Childhood Social Studies (3)  
EDT 441 Middle Childhood Science (3)

#### Choose TWO concentrations from the following:

#### Language Arts Concentration:

ENG 262 Children's Literature (3) or  
ENG 262M Children's Literature for Middle Childhood (3)  
ENG 301 History of the English Language (4)  
ENG 304 Backgrounds to Composition Theory and Research (3)  
EDT 423 Literature and Other Media for Adolescents (3)

#### Choose ONE of the following:

ENG 223 Strategies for Writers (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)

#### Choose ONE of the following:

CLS 121 Introduction to Classical Mythology (3)  
GER 231 Folk and Literary Fairy Tales (3)  
RUS 137 Russian Folklore (3)

#### Math Concentration:

MTH 151 Calculus I (5) (MPF V)  
MTH 217 Math for Middle School Teachers (3)  
MTH 218 Geometry for Middle School Teachers (3)  
MTH 407 Patterns and Structures in Mathematics (3)  
STA 301 Applied Statistics (3) or  
STA 261 Statistics (4) (see advisor before choosing)  
EDT 265 Mathematics: History and Technology (3)

**Science Concentration:**

EDT 181 Physical Science (4)  
EDT 182 Physical Science (4)  
EDT 415 Inquiring Life Science (3)

Science Elective (3) Choose any BIO, CHM, GLG, IES, MBI, and PHY 100-499; GEO 121, 211, 221, 275

*Choose TWO of the following: (6-8)*

BIO 113 Animal Diversity (4)  
BIO 114 Principles of Biology (4)  
BIO 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
BIO 116 Biological Concepts: Structure, Function, Cellular and Molecular Biology (4)  
BIO 121 Evolution: Just a theory? (3)  
BIO 131 Plants, Humanity, and Environment (3)  
BIO 155 Field Botany (3)  
BIO 161 Principles of Human Physiology (4)  
BIO 176 Ecology of North America (3)  
BIO 191 Plant Biology (4)  
MBI 111 Microorganisms and Human Disease (3)  
MBI 121 The Microbial World (3)

**Social Studies Concentration:**

HST 111, 112 Survey of American History (3, 3)  
EDT 362 Social Sciences for Teachers II (4)  
GEO 101 Global Forces, Local Diversity (3)

*Choose ONE of the following:*

HST 121, 122 Western Civilization (3, 3)  
HST 197 World History to 1500 (3)  
HST 198 World History Since 1500 (3)

*Choose ONE of the following:*

ATH 155 Introduction to Anthropology (4)  
ATH 175 Peoples of the World (3)  
SOC 151 Social Relations (4)  
SOC 153 Sociology in a Global Context (3)

## Adolescent/Young Adult Education Integrated English Language Arts Bachelor of Science in Education

**Required Courses:**

COM 135 Public Expression and Critical Inquiry (3)  
EDL 204 Sociocultural Studies in Education (3)  
EDL 318A Leadership in Education (3)  
EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
EDP 256 Psychology of the Exceptional Learner (3)  
EDP 279 Technology + Media Literacy and Learning (3)  
EDT 190 Introduction to Education (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)

*All of these concurrently, fall semester of cohort year:*

EDP 301A Assessment and Evaluation in Educational Settings (3)  
EDT 421A Classroom Management (2)  
EDT 427 Adolescent Language Arts I (3)  
EDT 346A Reading Instruction for Adolescents (3)

*This ONE, spring semester of cohort year only:*

EDT 428 Adolescent Language Arts II (3)

**Supervised teaching semester:**

EDT 419A Teaching Internship (15)

*Choose ONE of the following:*

AMS 205 Introduction to American Cultures (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 and the Americas (3)  
FSW 481 Adolescent Development in Diverse Families (3)  
GEO 201 Geography of Urban Diversity (3)  
IDS 159 Strength Through Cultural Diversity (3)  
WGS 201 Introduction to Women's Studies (3)

*Choose ONE of the following:*

JRN 101 Introduction to Journalism (3)  
JRN 201 News Writing and Reporting I (3)

*Choose TWO of these:*

ENG 223 Strategies for Writers (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)

*Choose ONE of these:*

ENG 131, 132, or 133 Life and Thought in English Literature (3, 3, 3)

*Choose ONE of these:*

ENG 141, 142, or 143 Life and Thought in American Literature (3, 3, 3)  
ENG 144 Major American Authors (3)

*Choose ONE of these:*

ENG 134 Introduction to Shakespeare (3)  
ENG 221 Shakespeare and Film (3)  
ENG 372, 373 Shakespeare's Principal Plays (3, 3)

*Choose ONE of these:*

CHI 251 Chinese Literature in English Translation (3)  
CHI 252 Modern Chinese Literature in English Translation (3)  
CLS 121 Introduction to Classical Mythology (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 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)  
RUS 257 Russian Literature in English Translation: From Pasternak to the Present (3)

*Choose ONE of these:*

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)

*Choose SIX hours of electives in ENG, JRN, COM, THE (6)*

## Integrated Mathematics Bachelor of Science in Education

**Required Courses:**

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)  
EDP 256 Psychology of the Exceptional Learner (3)  
EDP 279 Technology + Media Literacy and Learning (3)  
EDT 190 Introduction to Education (3)  
MTH 222 Introduction to Linear Algebra (3)  
MTH 331 Proof: Introduction to Higher 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) (MPC)  
STA 301 Applied Statistics (3)  
STA 401 Probability (3)

*Choose ONE of the following:*

AMS 205 Introduction to American Cultures (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 and the Americas (3)  
FSW 481 Adolescent Development in Diverse Families (3)  
GEO 201 Geography of Urban Diversity (3)  
IDS 159 Strength Through Cultural Diversity (3)  
WGS 201 Introduction to Women's Studies (3)

*All of these concurrently, fall semester of cohort year:*

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 Teaching Internship (1-16)

*Choose 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)

## Integrated Social Studies Bachelor of Science in Education

### Required content courses (55 credit hours of social studies content coursework):

ECO 201 Principles of Microeconomics (3) **and**  
 ECO 202 Principles of Macroeconomics (3)  
 GEO 101 Global Forces, Local Diversity  
 GEO 121 Earth's Physical Environment (4)  
 HST 111 Survey of American History (3) **and**  
 HST 112 Survey of American History (3)  
 POL 201 Political Thinking (4)  
 POL 241 American Political Systems (4)

#### Choose ONE of these:

ATH 155 Introduction to Anthropology (4)  
 SOC 151 Social Relations (4)  
 SOC 153 Sociology in a Global Context (3)

#### Choose ONE of these:

POL 221- 499 (3-4)

#### Choose ONE of the following sequences:

HST 121, and 122 Western Civilization (3, 3)  
 HST 197, and 198 World History (3, 3)

Four courses in History, 200-499, one of which must be non-western (12) (non-western history courses include 208, 217, 221, 224, 225, 241, 242, 259, 260, 303, 307, 319, 324, 325, 341, 342, 353, 354, 356, 371, 372, 383, 384, 434, 437, 442, 444, 487, 494, 495)

#### Choose ONE of the following Philosophy courses:

EDT 212 Applied Philosophy for Education (3)  
 PHL 301 Ancient Philosophy (4)  
 PHL 302 Modern Philosophy (4)  
 PHL 311 Ethical Theory (4)  
 PHL 312 Contemporary Moral Problems (4)  
 PHL 322 Contemporary European Philosophy (4)  
 PHL 331 Political Philosophy (3)  
 PHL 335 Philosophy of Law (4)  
 PHL 355 Feminist Theory (3)

#### Undergraduate education course requirements:

EDT 190 Introduction to Education (3)  
 EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
 EDL 204 Sociocultural Studies in Education (3)  
 EDP 256 Psychology of the Exceptional Learner (3)  
 EDL 318A Teacher Leadership and School Organization (3)  
 EDP 279 Technology + Media Literacy and Learning (3)

#### Choose ONE of the following:

AMS 205 Introduction to American Cultures (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 and the Americas (3)  
 FSW 481 Adolescent Development in Diverse Families (3)  
 GEO 201 Geography of Urban Diversity (3)  
 IDS 159 Strength Through Cultural Diversity (3)  
 WGS 201 Introduction to Women's Studies (3)

#### This ONE, spring semester of cohort year only:

EDT 433 Adolescent Social Studies Methods I (3)

#### All of these concurrently, spring semester of cohort year:

EDP 301A Assessment and Evaluation in Education (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 419A Teaching Internship (15)

## 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 advisor. 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 256 Psychology of the Exceptional Learner (3)  
 EDP 279 Technology + Media Literacy and Learning (3)  
 EDT 190 Introduction to the Teaching Profession (3)

#### Choose ONE of the following:

AMS 205 Introduction to American Cultures (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 and the Americas (3)  
 FSW 481 Adolescent Development in Diverse Families (3)  
 GEO 201 Geography of Urban Diversity (3)  
 IDS 159 Strength Through Cultural Diversity (3)  
 WGS 201 Introduction to Women's Studies (3)

#### 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 Teaching Internship (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/CLS/SPN 303/ATH 309/GER 309/ Introduction to Linguistics (4)

#### Choose 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

#### Choose TWO of these:

FRE 302 Reading Narrative (3)  
 FRE 303 Reading the Poetic (3)  
 FRE 310 Texts in Context (3)

#### Choose 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 German Language through the Media (3) **or**  
 GER 303 Introductory Business German (3)  
 GER 311 Introduction to German Literature (3)  
 GER 312 Introduction to German Literature (3)  
 GER 471 Applied German Linguistics (3)  
 Additional course from GER 400-499

*Choose ONE of these:*

GER 321 Cultural Topics in German-Speaking Europe (3)  
 GER 322 Comparative Study of Everyday Culture: German-Speaking Europe and the USA (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 (3)  
 CLS 121 Classical Mythology (3)  
 LAT 201 Intermediate Latin (3)  
 LAT 202 Intermediate Latin (3)

*Choose THREE semester hours from the following:*

CLS 200-499

*Complete required 34 semester hours from the following:*

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 - Choose TWO of these:*

SPN electives 451-499 (6)

\* see advisor if SPN 481 is not offered

## Music Education

See College of Creative Arts

## Science Education

### Requirements for all Science Education Programs

*All of these:*

EDL 204 Sociocultural Studies in Education (3)  
 EDL 318A Leadership in Education (3)  
 EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
 EDP 256 Psychology of the Exceptional Learner (3)  
 EDP 279 Technology + Media Literacy and Learning (3)  
 EDT 190 Introduction to Education (3)

*Choose ONE of the following:*

AMS 205 Introduction to American Cultures (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 and the Americas (3)

FSW 481 Adolescent Development in Diverse Families (3)

GEO 201 Geography of Urban Diversity (3)

IDS 159 Strength Through Cultural Diversity (3)

WGS 201 Introduction to Women's Studies (3)

*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 Teaching Internship (15)

## Chemistry Education: Bachelor of Science in Education

*All of these:*

CHM 141, 144 College Chemistry and Lab (3, 2)

CHM 142, 145 College Chemistry and Lab (3, 2)

CHM 241, 244 Organic Chemistry and Lab (3, 3)

CHM 363, 364 Analytical Chemistry and Lab (3, 2)

CHM 471 Biophysical Chemistry I (3)

CHM 491 Chemistry in Societal Issues (3)

EDT 415 Inquiry Into Life Science (3)

MTH 151 Calculus I (5)

MTH 251 Calculus II (4)

PHY 111 Astronomy and Space Physics (3)

PHY 181, 182, 183, 184 The Physical World and Lab (4, 4, 1, 1)

STA 261 Statistics (4)

*Introductory biology course, choose ONE:*

BIO 113 Animal Diversity (4)

BIO 114 Principles of Biology (4)

BIO/MBI 115 Biological Concepts (4)

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)

BIO 206 Evolutionary Biology (3)

GLG 204 Survival on an Evolving Planet (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)

PHY 215 Physics by Inquiry (3)

*Introductory geology course plus lab, choose ONE:*

GLG 111, 115L The Dynamic Earth (4)

GLG 121, 115L Environmental Geology (4)

GLG 141, 115L Geology of U.S. National Parks (4)

Science/Science Education Research Courses to be chosen with Advisor (3-6): BIO, EDT, CHM, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

## Earth Science: Bachelor of Science in Education

*All of these:*

CHM 141, 144 College Chemistry and Lab (3, 2)

CHM 142, 145 College Chemistry and Lab (3, 2)

GLG 201 Mineralogy (4)

GLG 211 Chemistry of Earth Systems (4)

GLG 244 Oceanography (3)

GLG 301 Sedimentology (4)

GLG 307 Water and Society (3)

PHY 111 Astronomy and Space Physics (3)

PHY 171 College Physics (3) **or**

PHY 181 The Physical World (4)

PHY 173 or PHY 183 Physics Lab (1)

STA 261 Statistics (4)

*Introductory geology course plus lab, choose ONE:*

GLG 111, 115L The Dynamic Earth/Understanding the Earth (4)

GLG 121, 115L Environmental Geology/Understanding the Earth (4)

GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (4)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)

BIO 206 Evolutionary Biology (3)

GLG 204 Survival on an Evolving Planet (4)

*Introductory biology course, choose ONE:*

BIO 113 Animal Diversity (4)

BIO 114 Principles of Biology (4)

BIO/MBI 115 Biological Concepts (4)

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)

PHY 215 Physics by Inquiry (3)

*Field course, choose ONE:*

BIO 155 Field Botany (3)  
BIO/MBI 333 Field Ecology (3)  
EDT 498F Experience South Africa! (3-6)  
GLG 411 Field Geology (6)  
GLG/GEO/IES/LAS 412 Tropical Ecology of Costa Rica (5)  
GLG/GEO/LAS 413/IES 423 Tropical Marine Ecology (5)  
GLG/IES/LAS 415 Coral Reef Ecology (5)  
GLG 499 Geology Field Workshops (5)

Science/Science Education Research Courses to be chosen with Advisor (3-6): BIO, EDT, CHM, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

## Earth Science/Chemistry: Bachelor of Science in Education

*All of the following:*

CHM 141,144 College Chemistry/College Chemistry 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 (4)  
GEO 421 Climatology (3)  
PHY 111 Astronomy and Space Physics (3)  
PHY 171 College Physics (3)  
PHY 173 Physics Lab (1)  
STA 261 Statistics (4)

*Introductory geology course, choose ONE:*

GLG 111, 115L The Dynamic Earth/Understanding the Earth (4)  
GLG 121, 115L Environmental Geology/Understanding the Earth (4)  
GLG 141, 115L Geology of the U.S. National Parks/Understanding the Earth (4)

*Introductory biology series, choose ONE:*

BIO 113 Animal Diversity (4)  
BIO 114 Principles of Biology (4)  
BIO/MBI 115 Biological Concepts (4)  
BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Earth science elective, choose TWO:*

GEO 211 Global Change (3)  
GLG 201 Mineralogy (+ lab) (4)  
GLG 211 Chemistry of Earth Systems (4)  
GLG 244 Oceanography (3)  
GLG 307 Water and Society (3)  
GLG 322 Structural Geology (4)  
GLG 357 Igneous/Metamorphic Petrology (4)  
GLG 401 Climate Change (4)

*Organic chemistry course, choose ONE:*

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)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)  
BIO 206 Evolutionary Biology (3)  
GLG 204 Survival on an Evolving Planet (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)  
PHY 215 Physics by Inquiry (3)

Science/Science Education Research Courses to be chosen with Advisor (3-6): BIO, CHM, EDT, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

*Field course:*

BIO 155 Field Botany (3)  
BIO/MBI 333 Field Ecology (3)  
EDT 498F Experience South Africa! (3-6)  
GLG 411 Field Geology (6)  
GLG/GEO/IES/LAS 412 Tropical Ecology of Costa Rica (5)  
GLG/GEO/LAS 413/IES 423 Tropical Marine Ecology (5)  
GLG/IES/LAS 415 Coral Reef Ecology (5)  
GLG 499 Geology Field Workshops (5)

## Earth Science/Life Science: Bachelor of Science in Education

*Required Courses:*

BIO 203 Cell and Molecular Biology (3)  
BIO 342 Genetics (3)  
CHM 141, 144 College Chemistry and Lab (3, 2)  
CHM 142, 145 College Chemistry and Lab (3, 2)  
CHM 231 Fundamentals of Organic Chemistry (4)  
STA 261 Statistics (4)  
GEO 121 Earth's Physical Environment (4)  
GEO 421 Climatology (3)  
PHY 111 Astronomy and Space Physics (3)

PHY 171 College Physics (3)

PHY 183 Physics Lab (1)

STA 261 Statistics (4)

*Introductory biology series, choose ONE:*

BIO 113 Animal Diversity (4)  
BIO 114 Principles of Biology (4)  
BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)  
BIO 206 Evolutionary Biology (3)  
GLG 204 Survival on an Evolving Planet (4)

*Field course, choose ONE:*

BIO 155 Field Botany (2)  
BIO/MBI 333 Field Ecology (3)  
EDT 498F Experience South Africa! (3-6)  
GLG 411 Field Geology (6)  
GLG/GEO/IES/LAS 412 Tropical Ecology of Costa Rica (5)  
GLG/GEO/LAS 413/IES 423 Tropical Marine Ecology (5)  
GLG/IES/LAS 415 Coral Reef Ecology (5)  
GLG 499 Geology Field Workshops (5)

*Physiology course, choose ONE:*

BIO 161 Principles of Human Physiology (4)  
BIO 305 Human Physiology (4)  
BIO 425 Environmental Plant Physiology (4)

*Ecology course, choose ONE:*

BIO 176 Ecology of North America (3)  
BIO 209 Fundamentals of Ecology (3)  
BIO 401 Plant Ecology (3)  
IES 275 Principles of Environmental Science (3)  
MBI 475 Microbial Ecology: Exploration of the Diverse Roles of Microorganisms in Earth's Ecology (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)  
PHY 215 Physics by Inquiry (3)

*Introductory geology course plus lab, choose ONE:*

GLG 111,115L The Dynamic Earth/Understanding the Earth (4) (MPF IVB, LAB)  
GLG 121,115L Environmental Geology/Understanding the Earth (4) (MPF IVB, LAB)  
GLG 141,115L Geology of the U.S. National Parks/Understanding the Earth (4) (MPF IVB, LAB)

*Earth science electives, choose TWO:*

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 307 Water and Society (3)  
GLG 322 Structural Geology (4)  
GLG 335 Ice Age Earth (3)  
GLG 357 Igneous/Metamorphic Petrology (4)  
GLG 401 Climate Change (4)  
GLG 402 Geo Microbiology (4)  
GLG 408 Hydrogeology (4)  
GLG 436 Paleoclimatology (3)

Science/Science Education Research to be determined with Advisor (3-6)- BIO, CHM, EDT, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

## Life Science: Bachelor of Science in Education

*Required Courses:*

BIO 203 Cell and Molecular Biology (3)  
BIO 342 Genetics (3)  
CHM 141, 144 College Chemistry and Lab (3, 2)  
CHM 142, 145 College Chemistry and Lab (3, 2)  
CHM 231 Fundamentals of Organic Chemistry (4)  
PHY 111 Astronomy and Space Physics (3)  
PHY 171 College Physics (3)  
PHY 173 Physics Lab (1)  
STA 261 Statistics (4)

*Introductory biology series, choose ONE:*

BIO 113 Animal Diversity (4)  
BIO 114 Principles of Biology (4)  
BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)  
BIO 206 Evolutionary Biology (3)  
GLG 204 Survival on an Evolving Planet (4)

*Field course, choose ONE:*

BIO 155 Field Botany (3)  
 BIO/MBI 333 Field Ecology (3)  
 EDT 498F Experience South Africa! (3-6)  
 GLG 411 Field Geology (6)  
 GLG/GEO/IES/LAS 412 Tropical Ecology of Costa Rica (5)  
 GLG/GEO/LAS 413/IES 423 Tropical Marine Ecology (5)  
 GLG/IES/LAS 415 Coral Reef Ecology (5)  
 GLG 499 Geology Field Workshops (5)

*Physiology course, choose ONE:*

BIO 161 Principles of Human Physiology (4)  
 BIO 305 Human Physiology (4)  
 BIO 425 Environmental Plant Physiology (4)

*Ecology course, choose ONE:*

BIO 176 Ecology of North America (3)  
 BIO 209 Fundamentals of Ecology (3)  
 BIO 401 Plant Ecology (3)  
 IES 275 Principles of Environmental Science (3)  
 MBI 475 Microbial Ecology: Exploration of the Diverse Roles of Microorganisms in Earth's Ecology (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)  
 PHY 215 Physics by Inquiry (3)

*Introductory geology course plus lab, choose ONE:*

GLG 111, 115L The Dynamic Earth/Understanding the Earth (4)  
 GLG 121, 115L Environmental Geology/Understanding the Earth (4)  
 GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (4)

## Life Science/Chemistry: Bachelor of Science in Education

*Required Courses:*

BIO 203 Cell and Molecular Biology (3)  
 BIO 342 Genetics (3)  
 CHM 141, 144 College Chemistry and Lab (3, 2)  
 CHM 142, 145 College Chemistry and Lab (3, 2)  
 CHM 231 Fundamentals of Organic Chemistry (4)  
 CHM 363 Analytical Chemistry (3)  
 PHY 111 Astronomy and Space Physics (3)  
 PHY 171 College Physics (3)  
 PHY 173 Physics Lab (1)  
 STA 261 Statistics (4)

*Introductory biology series, choose ONE:*

(Please note—you need TWO courses—BIO 113+114 or 115+116 to meet prerequisites for upper-level BIO courses.)

BIO 113 Animal Diversity (4)  
 BIO 114 Principles of Biology (4)  
 BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
 BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)  
 BIO 206 Evolutionary Biology (3)  
 GLG 204 Survival on an Evolving Planet (4)

*Introductory geology course plus lab, choose ONE:*

GLG 111, 115L The Dynamic Earth/Understanding the Earth (4)  
 GLG 121, 115L Environmental Geology/Understanding the Earth (4)  
 GLG 141, 115L Geology of U.S. National Parks/Understanding the Earth (4)

Science/Science Education Research Courses to be chosen with Advisor (3-6): BIO, CHM, EDT, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

*Physiology course, choose ONE:*

BIO 161 Principles of Human Physiology (4)  
 BIO 305 Human Physiology (4)  
 BIO 425 Environmental Plant Physiology (4)

*Ecology course, choose ONE:*

BIO 176 Ecology of North America (3)  
 BIO 209 Fundamentals of Ecology (3)  
 BIO 401 Plant Ecology (3)  
 IES 275 Principles of Environmental Science (3)  
 MBI 475 Microbial Ecology: Exploration of the Diverse Roles of Microorganisms in Earth's Ecology (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)  
 PHY 215 Physics by Inquiry (3)

*Field course, choose ONE:*

BIO 155 Field Botany (3)  
 BIO/MBI 333 Field Ecology (3)  
 EDT 498F Experience South Africa! (3-6)  
 GLG 411 Field Geology (6)  
 GLG/GEO/IES/LAS 412 Tropical Ecology of Costa Rica (5)

GLG/GEO/LAS 413/IES 423 Tropical Marine Ecology (5)

GLG/IES/LAS 415 Coral Reef Ecology (5)

GLG 499 Geology Field Workshops (5)

Science/Science Education Research Courses to be chosen with Advisor (3-6): BIO, CHM, EDT, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

## Physical Science: Bachelor of Science in Education

*Required courses:*

CHM 141, 144 College Chemistry/College Chemistry Lab (3, 2)  
 CHM 142, 145 College Chemistry/College Chemistry Lab (3, 2)  
 CHM 363, 364 Analytical Chemistry/Analytical Chemistry Lab (3, 2)  
 MTH 151 Calculus I (5)  
 MTH 251 Calculus II (4)  
 MTH 252 Calculus III (4)  
 PHY 111 Astronomy and Space Physics (3)  
 PHY 181, 182, 183, 184 The Physical World + Lab (4, 4, 1, 1)  
 PHY 281/293 Contemporary Physics I + Lab (3, 2)  
 PHY 292/294 Electronic Instrumentation + Lab (2, 2)

*Introductory biology course, choose ONE:*

BIO 113 Animal Diversity (4)  
 BIO 114 Principles of Biology (4)  
 BIO/MBI 115 Biological Concepts: Ecology, Evolution, Genetics, and Diversity (4)  
 BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)

*Earth systems, choose ONE:*

GLG 111, 115L The Dynamic Earth and Lab (4)  
 GLG 121, 115L Environmental Geology and Lab (4)  
 GLG 141, 115L Geology of U.S. National Parks and Lab (4)

*Inquiry course, choose ONE:*

EDT 415 Inquiry Into Life Science (3)  
 PHY 215 Physics by Inquiry (3)

*Evolution course, choose ONE:*

ATH 255 Foundations of Biological Anthropology (4)  
 BIO 206 Evolutionary Biology (3)  
 GLG 204 Survival on an Evolving Planet (4)

Science/Science Education Research to be determined with Advisor: BIO, CHM, EDT, PHY x77 (x= first, second, third, fourth year), BIO 419R, CHM 490

## Department of Educational Leadership

### Community Based Leadership minor

(18 semester hours)

Students will explore leadership as it is practiced in communities, organizations, and public institutions. Explorations of leadership as a critical activity for contemporary public life in a democratic society.

#### Core (6 hours)

*Introductory Course (required):*

EDL 232 Introduction to Community-Based Leadership (3)

*Communications course (required) choose ONE:*

AAA/AMS/BWS/LAS/WGS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)  
 COM 135 Introduction to Public Expression and Critical Inquiry (3)  
 COM 136 Introduction to Interpersonal Communication (3)  
 COM 259 Introduction to Strategic Communication and Public Relations (3)  
 COM 436 Intercultural Communication (3)  
 COM 428 Communication in Conflict Management (3)  
 COM 431 Persuasion Theory and Research (3)  
 JRN 101 Introduction to Journalism (3)  
 MAC 143 Introduction to Media (3)

#### Electives (9 hours)

Students will select courses reflective of a range of the 7 essential leadership competencies and their own interests and goals - Students must span at least 5 of the competencies.

*Personal (PER):*

EDL 290 The Nature of Group Leadership (2)  
 WGS 402 Engaged Learning Practicum (1-6)  
 WST/SJS 204 Introduction to Service-Learning (3)

### **Interpersonal (INT):**

COM 136 Introduction to Interpersonal Communication (3)  
 DST/SOC/EDP/WGS 375 (Dis)ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)  
 EDL 290 The Nature of Group Leadership (2)  
 FSW 381 Parent-Child Relations in Diverse Families (3)  
 GEO 458 Cities of Difference (3)  
 GEO 462 Public Space (3)  
 THE 439 Special Techniques for the Actor (3; maximum 6)  
 WGS 401 The Role of Women in a Transforming Society (3)

### **Social Systems (SSY):**

BWS 470 Social/Political Activism (3)  
 EDL 204 Sociocultural Studies in Education (3)  
 FSW 462 Family Policy and Law (3)  
 FSW 381 Parent-Child Relations in Diverse Families (3)  
 FSW 481 Adolescent Development in Diverse Families (3)  
 GEO F106 First Year Seminar  
 GEO 271 Human Dimensions of Natural Resource Conservation (3)  
 GEO 451 Urban and Regional Planning (3)  
 GEO 458 Cities of Difference (3)  
 GLG 307 Water and Society (3)  
 HST 216 Introduction to Public History (3)  
 SJS/SOC 165 Introduction to Social Justice Studies (3)  
 SJS/SOC 323 Social Justice and Change (3)  
 SOC/BWS 348 Race and Ethnic Relations (3)  
 SOC/BWS/SJS 470 Social/Political Activism (3)  
 SOC 409 Systems of Justice (3)

### **Leadership Theory (LDT):**

EDL 290 The Nature of Group Leadership (2)  
 WGS 401 The Role of Women in a Transforming Society (3)

### **Organizational (ORG):**

DST/SOC/EDP/WGS 375 (Dis)ability Allies: To be or not to be? Developing Identity and Pride from Practice (3)  
 FSW 462 Family Policy and Law (3)  
 GEO 451 Urban and Regional Planning (3)  
 SOC 409 Systems of Justice (3)  
 SOC/BWS/SJS 470 Social/Political Activism (3)  
 WGS 402 Engaged Learning Practicum (1-6)

### **Contextual (CTX):**

EDL 204 Sociocultural Studies in Education (3)  
 FSW 381 Parent-Child Relations in Diverse Families (3)  
 FSW 462 Family Policy and Law (3)  
 FSW 481 Adolescent Development in Diverse Families (3)  
 GEO 271 Human Dimensions of Natural Resource Conservation (3)  
 GEO 451 Urban and Regional Planning (3)  
 GEO 458 Cities of Difference (3)  
 GEO 462 Public Space (3)  
 GLG 307 Water and Society (3)  
 HST 216 Introduction to Public History (3)  
 SJS/SOC 165 Introduction to Social Justice Studies (3)  
 SJS/SOC 323 Social Justice and Change (3)  
 SOC 409 Systems of Justice (3)  
 WST/SJS 204 Introduction to Service-Learning (3)

### **Catalytic (CAT):**

AAA/AMS/BWS/LAS/WGS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)  
 GEO/WGS 436 Women, Gender, and the Environment (3)  
 SJS 323 Social Justice and Change (3)  
 SOC/BWS/SJS 470 Social/Political Activism (3)  
 WGS 401 The Role of Women in a Transforming Society (3)  
 WGS 402 Engaged Learning Practicum (1-6)  
 THE 439 Special Techniques for the Actor (3; maximum 6)

### **Culminating course (required)**

EDL 464 Community-Based Leadership and Change (3)

\*\* Minimum 3.00 cumulative GPA in minor classes required to receive minor degree.

\*\*\*Students can apply up to six (6) hours of course-work already taken from the list of Electives OR from Communication course requirement options.

Mild-moderate intervention specialist have expertise in designing and implementing educational programs and services for children and youth needing support in the general education classroom and other educational settings.

## **Special Admission and Transfer Requirements**

Admission is limited to those who are eligible for admission to teacher preparation programs and have completed 20 semester hours with a 2.75 GPA, 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 20 semester hours with at least a 2.75 GPA (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 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 **September 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 **September 30**; some applicants may be placed on a waiting list. Space in the cohort is limited and admission is not guaranteed.

**Note:** Admission to Miami University, the College 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 and students seeking only the Thematic Sequence in special education (EDP 1) can apply any time in 201 McGuffey Hall. Applications are taken until the cohort fills. The thematic sequence and minor are offered in an online format with the majority of classes being offered in the summer and winter terms. Most classes offered during regular semesters are restricted to majors only, due to space limitations.

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. Transfer students may need additional time to complete the major dependent upon time of transfer.

## **Department of Educational Psychology**

For information, contact the Department of Educational Psychology, 201 McGuffey Hall (513-529-6621).

This department administers the undergraduate program for Special Education majors that leads to a Bachelor of Science Degree in Education and an Ohio license as an intervention specialist in mild-moderate special needs. The license allows graduates to teach in kindergarten through 12th grade.

## 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 residency 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 spring semester of the first year.

#### Program Requirements

##### Professional core

EDL 204 Sociocultural Studies in Education (3) (MPF IIB)  
 EDL 318M Leadership in Education (3)  
 EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC)  
 EDP 279 Technology + Media Literacy and Learning (3)  
 EDP 256 Psychology of Learners with Exceptionalities (3) \*  
 EDP 494 Assessment, Evaluation, and Educational Planning for Learners with Exceptionalities (3)  
 EDT 190 Introduction to Education (3)  
 \* Prerequisite for EDP 256 is EDP 201.

##### Reading core:

EDT 246A Foundations of Reading, Language, and Literacy (3) or  
 EDT 246M Foundations of Reading, Language, and Literacy (3)  
 EDT 346M Reading Instruction for Middle Grades (3)  
 EDT 436M Middle Childhood Language Arts (3)  
 EDP 471 Literacy Training Seminar - Clinical  
 EDP 472 Literacy Training Seminar - Practical

##### Mild-Moderate Intervention Specialist (K-12)

EDP 220 Field Experiences in Special Education (1) \*\*  
 EDP 444 Teaching Social and Affective Skills to Children and Youth with Exceptionalities (3) \*\*\*  
 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

EDP 454 Adapting Math Instruction for Learners With Special Needs (3) or  
 EDT 318E Mathematics in Early Childhood (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)  
 EDT 252M Early Field Experience: Middle Childhood (3)  
 EDP 456 Advanced Seminar in Evaluation with Evidence-Based Interventions (3)  
 MTH 116 Mathematics for Elementary School Teachers (4)  
 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 in McGuffey Hall each year until enrollment limits are reached. Online classes during winter and summer terms may be required.

#### Program Requirements

##### Take this course first:

EDP 256 Psychology of Learners with Exceptionalities (3)

##### Required:

EDP 494 Assessment and Evaluation of Exceptional Learners (3)

EDP 496 Behavioral Interventions: Theory, Principles, and Practice (3)

##### Choose from the following to complete 18 hours:

EDP 272 Disability Studies (3)  
 EDP 478 Consultation and Collaboration in Special Education (3) EDP 444 Teaching Social and Affective Skills to Children and Youth with Exceptionalities (3)  
 EDP 491 Individuals With Mild-Moderate Disabilities: Social, Educational and Legal Issues (3)

## Educational Technology Minor

The minor in educational technology is designed for students who are interested in the design and integration of technology/media for teaching and learning in both K12 and non-K12 environments. This minor is also designed for students interested in instructional design for industry, higher education, government and other non-K12 education and training.

#### Program Requirements

EDP 279 Technology + Media Literacy and Learning (3)  
 (required for students in teacher preparation programs)  
 EDP 331 Introduction to Educational Technology (3)  
 (students in non-teacher preparation programs)  
 EDP 332 Instructional Design Theory and Models (3)  
 EDP 333 Evaluation and Assessment for Instructional Design (3)  
 EDP 336 Diversity, Learning & Technology (3)  
 EDP 445 Curriculum & Technology (3)  
 EDP 446 Educational Interactive Design (3)

## 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 provides that Miami's undergraduate in Family Studies provide course work meeting all standards and criteria needed for the Provisional Certified Family Life Educator designation. The Council on Social Work Education has accredited the undergraduate social work program.

## 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) (IIC, MPF, MPT) **or**  
 FSW/SOC 363 Sociology of Families (3)  
 FSW 281 Child Development in Diverse Families (4) MPT  
 FSW/KNH 295 Research and Evaluation Methods (4)  
 FSW/WGS 361 Couple Relationships: Diversity and Change (3) MPT  
 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 12 hours from the following, 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/SOC 362 Family Poverty (3)  
 FSW 365 Family Life Sexuality Education Across Cultures (3) MPT **or**  
 FSW/SOC/WGS 221 Human Sexuality (3)  
 FSW 377 Independent Studies (0-5)  
 FSW 418 The Family Life Education Process (3)  
 FSW 451 Family Violence (3)  
 FSW 462 Family Policy and Law (3) MPC  
 FSW 465 Child Maltreatment (2)  
 FSW 477 Independent Studies (0-5)  
 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 (3)  
 ATH 185 Cultural Diversity in the U.S. (3) (MPF IIC)  
 BWS 151 Introduction to Black World Studies (4) (MPF, IIC)  
 BWS/SOC 348 Race and Ethnic Relations (3)  
 COM/FSW 281 Mediated Sexualities: Lesbians, Gays, Bisexuals, and Transgendered Persons and the Electronic Media (3) (MPF, IIB)  
 COM 436 Intercultural Communication (3)  
 DST/ENG 169 Disability Identity (3)  
 EDP/DST/SOC 272 Introduction to Disability Studies (3)  
 HST/LAS 260 Latin America in the United States (3) (IIB, IIBB, MPF)  
 IDS 159 Strength Through Cultural Diversity (3)  
 WGS 301 Women and Difference: Intersections of Race, Class, and Sexuality (3)

#### Social Contexts

AMS/HST/WGS 382 Women in American History (3)  
 AMS/HST 392 Sex and Gender in American Culture (3)  
 COM 135 Introduction to Public Expression and Critical Inquiry (3)  
 COM 136 Introduction to Interpersonal Communication (3) (MPF, IIC)  
 COM 231 Small Group 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)  
 SOC 151 Social Relations (4) (IIC, MPF) **or**  
 SOC 153 Sociology in a Global Context (3) MPF  
 WGS 201 Introduction to Women's Studies (3) IIC, MPF)

#### Human Development

BIO 161 Principles of Human Physiology (4) (IVA, MPF) **or**

BIO 171 Human Anatomy and Physiology (4) (IVA, MPF)  
 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 Fundamentals of Nutrition (3)  
 KNH 232 Health Issues of Children and Youth (2)  
 KNH 432/532 Nutrition Across the Life Span (3)  
 PSY 111 Introduction to Psychology (4)  
 PSY 231 Developmental Psychology (3) MPT  
 PSY 331 Infant Development (3)

### 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](http://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 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 or FSW 221 or WGS 221), interpersonal relationships (FSW 361 or WGS 361), family resource management (FSW 495 and FSW 362), parent education and guidance (FSW 381), family law and public policy (FSW 206 or FSW 462), ethics (FSW 494), and family life education methodology (FSW 418). Students are required to complete an internship that involves a minimum of 120 clock hours of direct contact focusing on family life education practice.

## 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, students may declare a pre-major at the time of university admission or soon thereafter. After declaring a pre-major, apply for admission into the BSW program. Applicants are selected by the Social Work faculty based on academic and professional promise. Students 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 GPA; (2) FSW 201 with a grade of C or better and passing BIO 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 on the FSW website and in Room 101 McGuffey Hall. Application packets must be filed in the Social Work Program Office by **March 31**. Admission is limited. 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 and Evaluation Methods (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 (6)  
 FSW 412 Senior Seminar in Social Work I (2)  
 FSW 413 Senior Seminar in Social Work II (2)  
 FSW 414 Social Work Senior Practicum II (6)

#### Required related hours

*All of these:*

BIO 161 Principles of Human Physiology and lab (4) (MPF IVA, LAB) or  
 BIO 171 Human Anatomy and Physiology (4)  
 ECO 131 Economic Perspectives on Inequality in America (3) or  
 ECO 201 Principles of Microeconomics (3) (MPF IIC) or  
 ECO 202 Principles of Macroeconomics (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) or  
 SOC 153 Sociology in a Global Context (3)  
 STA 261 Statistics (4) (MPF V) or  
 PSY 293 Research Design and Analyses in Psychology I (4) or  
 ISA 205 Business Statistics (4)

#### Choose ONE of the following:

PSY 221 Social Psychology (3)  
 PSY 241 Personality (3)  
 PSY 242 Abnormal Psychology (3)  
 PSY 324 Advanced Social Psychology (3)  
 PSY 325 Psychology of Prejudice and Minority Experience (3)  
 PSY 326 Psychology of Women (3)  
 PSY 345 Childhood Psychopathology and Developmental Disabilities (3)

#### Choose ONE of the following:

FSW 485 Social Work in a Diverse World (3)  
 SJS 323 Social Justice and Change (3)  
 SJS 487 Globalization, Social Justice and Human Rights (3)  
 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 Field 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 18. Courses focus on growth and development, parent-child relationships, and techniques for working with children and adolescents. This program is of special interest to those majoring in education, social sciences, speech pathology, or social work. No courses may be taken credit\credit No. Students planning to take this minor should consult with the chief departmental advisor. This minor open to all students, except Family Studies major, includes Thematic Sequence FSW 4 Children in Families.

#### Program Requirements

*All of these:*

EDP 256 Psychology of the Exceptional Learner (3)  
 FSW 261 Diverse Family Systems Across the Life Cycle (3) or  
 FSW/SOC 363 Sociology of Families (3)  
 FSW 281 Child Development in Diverse Families (4)  
 FSW 381 Parent-Child Relations in Diverse Families (3)  
 FSW 481 Adolescent Development in Diverse Families (3)  
 FSW 494 Internship with Families and Children (3)

## 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 2.00 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) or  
 FSW/SOC 363 Sociology of Families (3)  
 FSW/WGS 361 Couple Relationships: Diversity and Change (3)  
 FSW 365 Family Life Sexuality Education Across Cultures (3)  
 FSW 494 Internship with Families and Children (3)

*Take two from the following:*

FSW 281 Child Development in Diverse Families (4)  
 FSW 381 Perspectives in Parenting (3)  
 FSW/GTY 466 Later Life Families (3)  
 FSW 475 Family Theories (3)  
 FSW 481 Adolescent Development in Diverse Families (3) MPT

## Department of Kinesiology and Health

For information, 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, nutrition, kinesiology, health promotion and sport leadership and management. The department also offers three undergraduate program minors: coaching, nutrition, and sport management.

## 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 Education program 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 teams and athletes. All pre-professional athletic training students are required to complete an application to the program during their spring 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 GPA 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.

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 major/concentration at multiple course levels 100 level, 200 level 300 level and 400 level.

### Athletic Training Major Requirements (64-69 hrs)

BIO 161 Principles of Human Physiology (4) (MPF IVA, LAB)  
 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 Physical Activity 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/FSW 295 Research and Evaluation Methods (4)  
 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) (optional)  
 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)  
 STA 261 Statistics (4)

## Health Promotion Bachelor of Science in Kinesiology and Health

Health promotion encourages individuals and groups of people to improve and/or maintain their health status. Health promotion focuses on health, not disease – although each are discussed in light of the other in order to generate critical thinking, reasoning, and other basic principles of liberal education and lifelong learning. Using key frameworks like the Ecological Model and the PRECEDE-PROCEED Model, our students understand their role in social systems and communities, both local and global, and generate an appreciation for the role that environments and health behaviors play in the quality of life of human beings across the lifespan. Program Requirements

### Exploring KNH Matrix: (9 hours)

Take a minimum of nine (9) KNH credit hours OUTSIDE of student's major/concentration at multiple course levels 100 level, 200 level, 300 level and 400 level.

### Requirements for all majors: Take All (22 semester hours)

KNH 205 Understanding Drugs for the Health Promotion Professional (3) **or**  
 KNH 206 AIDS: Etiology, Prevalence and Prevention (3)  
 KNH 242 Personal Health (3)  
 KNH/FSW 295 Research and Evaluation Methods (4)  
 KNH 362 Health Promotion Foundations (3)  
 KNH 462 Health Promotion Program Planning and Evaluation (3)  
 MBI 131 Community Health Perspectives (2)  
 STA 261 Statistics (4)

### Select FOUR courses from the following: (10-19 semester hours)

BIO 161 Principles of Human Physiology (4)  
 FSW 261 Diverse Family Systems Across the Life Cycle (3)  
 KNH 243 Women's Health Care: Problems and Practices (3)  
 KNH 329 Psychological Perspectives on Health (3)  
 KNH 385 Contemporary Issues in Men's Health (3)  
 KNH 415 Health Education for Children and Youth (3)  
 KNH 420 Field Experience (3-8)  
 KNH 432 Nutrition Across the Life Span (3)  
 KNH 453 Seminar in Kinesiology and Health (1-4)  
 KNH 473 Children and Youth in Sport (3)  
 NSG 441 Health and Aging: Current Perspectives and Issues (3)  
 PSY 231 Developmental Psychology (3)  
 PSY 332 Child Development (3) **or**  
 FSW 281 Child Development in Diverse Families (4)  
 PSY 333 Adolescent Development (3) **or**  
 FSW 481 Adolescent Development in Diverse Families (3)  
 PSY 334 Adulthood and Aging (3)

## Kinesiology Bachelor of Science in Kinesiology and Health

The Kinesiology major is for students interested in the scientific aspects of human movement. Kinesiology focuses on the acquisition of knowledge and understanding of interactions of physiological, anatomical, neuropsychological, and biomechanical factors that affect human health and performance. Skills learned in the classroom, laboratory and internships include assessing and developing effective strategies for enhancing health, improving performance, preventing diseases related to sedentary behavior and promoting the recovery of health in rehabilitation settings. State-of-the-art laboratories complement the classroom and foster critical thinking, reasoning, and other basic principles of liberal education, instrumental in careers in and outside of Kinesiology.

## Program Requirements

### Exploring KNH Matrix: (9 hours)

Take a minimum of nine (9) KNH credit hours OUTSIDE of student's major/concentration at multiple course levels 100 level, 200 level, 300 level and 400 level.



**Requirements outside the KNH Dept. (26-27)****All of these:**

BIO 161 Principles of Human Physiology (4)  
 CHM 141 College Chemistry (3) **or**  
 CHM 141R College Chemistry (4)  
 CHM 144 College Chemistry Lab (2)  
 CHM 142 College Chemistry (3)  
 CHM 145 College Chemistry Lab (2)  
 PHY 171 College Physics (3)  
 PHY 173 Physics Laboratory (1)  
 PSY 111 Introduction to Psychology (4)  
 STA 261 Statistics (4)

**Requirements in KNH (24)****All of these:**

KNH 184 Motor Skill Learning and Performance (3)  
 KNH 184L Motor Skill Learning and Performance Lab (1)  
 KNH 188 Physical Activity and Health (3)  
 KNH 244 Functional Anatomy (3)  
 KNH 244L Functional Anatomy Lab (1)  
 KNH 381 Biodynamics of Human Performance (3)  
 KNH 381L Biodynamics of Human Performance Lab (1)  
 KNH 382 Fitness Assessment and Exercise Prescription (4)  
 KNH 468 Physiology and Biophysics of Human Activity (3)  
 KNH 468L Physiology and Biophysics of Human Activity Lab (1)

Engagement (1 hour): This requirement can be met by taking a minimum of 1 credit hour of KNH 177, 277, 377, 477, 420, 453 or Summer Scholars KNH 340U.

Related Courses in Kinesiology Area (6 hours): Select from KNH 102, 274, 276, \*288, \*289, 329, 375, 378, 409, 482, \*484 that are not used in the Exploring KNH Matrix.  
 (\*Athletic Training courses that require instructor permission.)

## Nutrition Bachelor of Science in Kinesiology and Health

The Nutrition major leads to a Bachelor of Science in Kinesiology and Health degree. Nutrition, an area of health science, studies human metabolism as it relates to nutrition. An interdisciplinary curriculum with courses in nutrition, food science, food systems management, lifestyle and health, with supporting courses in chemistry, social science and management is provided by this major. Students in this major must complete one of two concentrations, Community Nutrition or Dietetics, which fulfills the Accreditation Council for Education in Nutrition and Dietetics (ACEND) the accrediting body for our Didactic Dietetics Program requirements.

The Nutrition major, with a Community Nutrition concentration, allows the student to complement a foundation of nutrition, chemistry, behavior, physiology, microbiology, and statistics with course selections based on career interest. A graduate, completing this major, may choose from career opportunities in business, industry, education, or research, including medical and pharmaceutical sales, product development and marketing, and food-related businesses. This major may also be appropriate for students planning to pursue careers in health care, corporate wellness, food systems management, government food/nutrition program administration, public policy, and other allied health professions.

The Nutrition major, with a Dietetics concentration, is accredited by ACEND of the Academy of Nutrition and Dietetics (AND). This fulfills the didactic portion of the requirements to become a registered dietitian and a professional member of AND. To become a registered dietitian one must complete an ACEND approved clinical internship following graduation\* and pass the registration exam. Dietitians are professionally prepared to perform nutritional assessment, counseling, and education as components of preventive, curative, or restorative health.

\*Acceptance rate of clinical experiences dependent upon student academic performance and other experiences.

**Program Requirements****Exploring KNH Matrix (9)**

Take a minimum of nine (9) KNH credit hours OUTSIDE of student's major/concentration at multiple course levels 100 level, 200 level, 300 level and 400 level.

**Nutrition Major Requirements: (54-75)**

The Nutrition Major must complete all requirements in the Nutrition Foundation PLUS choose a concentration in either Community Nutrition or Dietetics. The Dietetics Concentration is for students interested in becoming a Registered Dietitian and a professional member of the Academy of Nutrition and Dietetics (AND).

**Nutrition Foundation: Take all (43-44)**

BIO 161 Principles of Human Physiology (4)  
 CHM 141 College Chemistry (3)  
 CHM 144 College Chemistry Lab (2)  
 CHM 142 College Chemistry (3)  
 CHM 145 College Chemistry Laboratory (2)  
 CHM 231 Fundamentals of Organic Chemistry (4)  
 CHM 332 Outlines of Biochemistry (4)  
 KNH 102 Fundamentals of Nutrition (3)  
 KNH 103 Introduction to the Profession of Dietetics (2)  
 KNH 213 Global and Community Nutrition (3)  
 KNH 304 Advanced Nutrition (3)  
 MBI 111 Microorganisms and Human Disease (3)  
 PSY 111 Introduction to Psychology (4) **or**  
 EDP 101 Psychology of the Learner (3)  
 STA 261 Statistics (4)

**Community Nutrition Concentration: (11-13 hours)**

In addition to the Nutrition Foundation requirements, students interested in business, industry, education, research, health care, and corporate wellness, must select a minimum of 11 total hours from the options below. See your advisor for recommendations dependent upon your interests.

**Select TWO of the following: (6)**

ATH 448 Developing Solutions in Global Health (3)  
 FSW 261 Diverse Family Systems Across the Life Cycle (3)  
 KNH 203 Nutrition in Disease Prevention Management (3)  
 KNH 242 Personal Health (3)  
 KNH 362 Health Promotion Foundations (3)  
 KNH 409 Nutrition for Sports and Fitness (3)  
 KNH 432 Nutrition Across the Life Span (3)  
 KNH 462 Health Promotion Program Planning and Evaluation (3)  
 PSY 231 Developmental Psychology (3)

**Select TWO of the following: (5-7)**

COM 136 Introduction to Interpersonal Communication (3)  
 COM 231 Small Group Communication (3)  
 ECO 201 Principles of Microeconomics (3)  
 ECO 202 Principles of Macroeconomics (3)  
 ECO 332 Health Economics (3) (prereqs. 201 & 202)  
 ESP 201 Introduction to Entrepreneurship (3)  
 KNH 468L Physiology & Biophysics of Human Activity (3/1)  
 KNH 482 Exercise Management of Chronic Disease (3)  
 MBI 131 Community Health Perspectives (2)  
 MGT 111 Introduction to Business (3)  
 MGT 291 Introduction to Management & Leadership (3)  
 MGT 303 Human Resource Management (3)

**Dietetics Concentration: (31 hours)**

In addition to the Nutrition Foundation requirements, student's planning on becoming a Registered Dietitian must also complete the following coursework. Acceptance rate of a clinical experience is dependent upon student academic performance and other experiences.

**Take ALL of the following: (28)**

KNH 104 Introduction to Food Science and Meal Management (4)  
 KNH 203 Nutrition in Disease Prevention Management (3)  
 KNH 303 Food Systems Management (3)  
 KNH 403 Professional Practices in Dietetics (3)  
 KNH 404 Advanced Food Science (4)  
 KNH 411 Medical Nutrition Therapy I (3)  
 KNH 413 Medical Nutrition Therapy II (3)  
 KNH 420G Field Experience: Dietetics (minimum 2)  
 KNH 432 Nutrition Across the Life Span (3)

**Select ONE of the following: (3)**

MGT 111 Introduction to Business (3)  
 MGT 291 Introduction to Management & Leadership (3)  
 MGT 303 Human Resource Management (3)

## Sport Leadership and Management Bachelor of Science in Kinesiology and Health

The Sport Leadership and Management (SLAM) major prepares students to succeed in leadership positions in the sport industry (recreational to professional, youth to adult) by providing them with knowledge and skills to critically analyze and innovatively engage in the business and culture of sport.

### Program Requirements

#### A. Exploring KNH Matrix (9 hours)

KNH Department requirement of a minimum of 9 credits (or 3 courses) in KNH outside the SLAM major or specific area of concentration; multiple course levels required.

#### B. Sport Leadership and Management Practicum: (3 hours)

KNH 495 Practicum in Sport Leadership and Management (3)

#### C. Statistics Course (4 hours):

STA 261 Statistics (4)

#### D. Sport Leadership Core Courses: (18 hours)

##### Psychosocial Sport Leadership (6 hours)

KNH 272 Contemporary Perspectives on Leadership in Sport Contexts (3)

KNH 375 Psychological Perspectives in Sport and Exercise (3)

##### Sport Leadership and Culture (6 hours)

KNH 276 The Meaning of Leisure (3)

KNH 378 Sport, Power and Inequality (3)

##### Contexts of Sport Leadership (6 hours)

KNH 472 Sport in Schools and Colleges (3)

KNH 473 Children and Youth in Sport (3) or

KNH 471 Sport, Leisure, and Aging (3)

In ADDITION TO the requirements listed in A-D above, students must complete ONE of four specialized SLAM concentrations listed below:

#### 1. Sport Management (30 hours)

##### A. Sport Management Courses (12 hours)

KNH 212 Sport Management (3)

KNH 313 Sport Economics and Finance (3)

KNH 414 Facilities and Event Management in Sport (3)

KNH 416 Sport Marketing (3)

##### ONE of these:

KNH 453O Legal Issues for KNH Professionals (3)

KNH 4536 Sport Administration (3)

KNH 453M Ethics in Sports (3)

KNH 448 International Perspectives in Sport (3)

##### B. Communication Course (3 hours)

##### ONE of these:

COM 134 Intro to Speech Communication (3)

COM 136 Introduction to Interpersonal Communication (3)

COM 231 Small Group Communication (3)

COM 259 Introduction to Strategic Communication and Public Relations (3)

JRN 101 Introduction to Journalism (3)

MAC 143 Introduction to Media (3)

##### C. Business Writing or Media Course (3 hours)

##### ONE of these:

ENG 313 Technical Writing (3)

ENG 315 Business Writing (3)

ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)

IMS 201 Information Studies in the Digital Age (3)

IMS 222 Web and Interaction Design (3)

IMS 355 Principles and Practices of Managing Interactive Projects (3)

IMS 390 Special Topics in Interactive Media Studies (3)

JRN 201 Reporting and News Writing I (3)

##### D. Business Courses (9 hours)

##### ONE of these options:

##### Option 1 (Management)

MGT 111 Introduction to Business (3)

MGT 291 Introduction to Management & Leadership (3)

MGT 304 Cross Cultural Management (3) or

MGT 414 Motivation and Work (3) or

MGT 415 Leadership and Learning (3) or

MGT 416 Organizational Change Management (3)

##### Option 2 (Marketing)

MGT 111 Introduction to Business (3)

ECO 201 Principles of Microeconomics (3)

MKT 291 Principles of Marketing (3)

##### Option 3 (Entrepreneurship)

MGT 111 Introduction to Business (3)

ESP 201 Introduction to Entrepreneurship (3)

ESP 251 Entrepreneurial Value Creation and Capture (3) or

ESP 366 Imagination and Entrepreneurship (3) or

ESP 464 Social Entrepreneurship (3)

##### Option 4 (Summer Business Institute)

**Note:** Summer Business Institute NOT open to students with majors or minors in business.

BUS 301 Macro Concepts in Contemporary Business (3)

BUS 302 Micro Concepts in Contemporary Business (3)

BUS 303 Business Process Integration (3)

#### 2. Coaching (29 hours)

##### A. Coaching Courses (23 hours)

KNH 184 Motor Skill Learning and Performance (3) and

KNH 184L Motor Skill Learning and Performance Laboratory (1)

KNH 244 Functional Anatomy (3) and

KNH 244L Functional Anatomy Laboratory (1)

KNH 337 Foundations and Fitness Training for Coaches (3)

KNH 338 Psychosocial Aspects of Coaching (3) or

KNH 438 Principles of Effective Coaching (3)

KNH 447 Sport Pedagogy (3)

KNH 473 Children and Youth in Sport (3) or

KNH 471 Sport, Leisure, and Aging (3)

##### ONE of these:

EDL 290 The Nature of Group Leadership (2)

KNH 212 Sport Management (3)

KNH 453M Legal Issues for KNH Professionals (3)

KNH 453O Ethics in Sports (3)

##### B. Contexts of Coaching (3 hours)

##### ONE of these:

KNH 274 Critical Perspectives on the Body (3)

KNH 279 African Americans in Sport (3)

KNH 448 International Perspectives in Sport (3)

KNH 475 Women, Gender Relations, and Sport (3)

##### C. Communication/Management Courses (3 hours)

##### ONE of these:

COM 134 Intro to Speech Communication (3)

COM 135 Introduction to Public Expression and Critical Inquiry (3)

COM 136 Introduction to Interpersonal Communication (3)

COM 231 Small Group Communication (3)

COM 259 Introduction to Strategic Communication and Public Relations (3)

MGT 291 Introduction to Management & Leadership (3)

#### 3. Sport Journalism (43 hours)

Students in the Sport Journalism concentration complete two Bachelor's degrees with a Bachelor of Science in Kinesiology and Health (major in SLAM) and a Bachelor of Arts in Journalism (major in Journalism). Students should contact the Department of Media, Journalism and Film for information on their specific requirements in Journalism. (Please note with a major in Journalism students must complete ALL additional College of Arts and Science Global Miami Plan requirements).

##### A. Sport Leadership and Management Courses (9 hours)

##### THREE of these:

KNH 274 Critical Perspectives on the Body (3)

KNH 279 African Americans in Sport (3)

KNH 313 Sport Economics and Finance (3)

KNH 338 Psychosocial Aspects of Coaching (3) or

KNH 438 Principles of Effective Coaching (3)

KNH 448 International Perspectives in Sport (3)

KNH 453M Ethics in Sports (3)

KNH 475 Women, Gender Relations, and Sport (3)

##### B. Bachelor of Arts with a major in Journalism (dual degree required)

#### 4. Sport Media (48 hours)

Students in the Sport Media concentration complete two Bachelor's degrees with a Bachelor of Science in Kinesiology and Health (major in SLAM) and a Bachelor of Arts in Media and Culture (major in Media and Culture). Students should contact the Department of Media, Journalism and Film for information on their specific requirements in Media and Culture. (Please note with a major in Media and Culture students must complete ALL additional College of Arts and Science Global Miami Plan requirements).

##### A. Sport Leadership and Management Courses (9 hours)

##### THREE of these:

KNH 274 Critical Perspectives on the Body (3)

KNH 279 African Americans in Sport (3)

KNH 313 Sport Economics and Finance (3)

KNH 338 Psychosocial Aspects of Coaching (3) **or**  
 KNH 438 Principles of Effective Coaching (3)  
 KNH 448 International Perspectives in Sport (3)  
 KNH 453M Ethics in Sports (3)  
 KNH 475 Women, Gender Relations, and Sport (3)

**B. Bachelor of Arts with major in Media and Culture (dual degree required)**

## 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 section. Required semester hours are in parentheses beside the minor.

### Coaching Minor

(20 semester hours)

The minor in coaching allows students to obtain the knowledge and skills needed to coach at the youth, interscholastic, and intercollegiate levels of sport. Completion of the minor requirements results in certification by the Ohio High School Athletic Association and the National Federation of State High School Associations (required for interscholastic coaches). Students majoring in Sport Leadership and Management are NOT eligible for this minor.

#### Program Requirements

##### **All of these:**

KNH 184 Motor Skill Learning and Performance (3)  
 KNH 184L Motor Skill Learning and Performance Lab (1)  
 KNH 244 Functional Anatomy (3)  
 KNH 244L Functional Anatomy Lab (1)  
 KNH 337 Foundations and Fitness Training for Coaches (3)  
 KNH 338 Psychosocial Aspects of Coaching (3) **or**  
 KNH 438 Principles of Effective Coaching (3)  
 KNH 447 Sport Pedagogy for Coaches and Practitioners (3)

##### **ONE of these:**

KNH/BWS/SOC 279 African Americans in Sport (3)  
 KNH 378 Sport, Power and Inequality (3)  
 KNH 448 International Perspectives in Sport (3)  
 KNH 453M Ethics in Sports (3)  
 KNH 471 Sport, Leisure, and Aging (3)  
 KNH 473 Children and Youth in Sport (3)  
 KNH 475 Women, Gender Relations, and Sport (3)

### Nutrition Minor

(18 semester hours)

This minor provides a basic understanding of nutrition and includes specialized courses in nutrition. It complements majors in

health-related professional and pre-professional programs. It does not provide a basis for counseling in nutrition.

Courses must be taken for a grade. No courses may be taken for credit/no credit. A minimum of 2.0 GPA is required for all courses in the minor. Students planning to take this minor should consult with the chief departmental advisor. This minor is open to all university students except Nutrition majors who are excluded from this minor.

#### Program Requirements

##### **Required courses:**

CHM 141 and 144 College Chemistry/College Chemistry Lab (3, 2)  
 KNH 102 Fundamentals of Nutrition (3)  
 KNH 104 Introduction to Food Science and Meal Management (4)  
 KNH 304 Advanced Nutrition (3)

##### **Required electives: (3 credit hours)**

KNH 203 Nutrition in Disease Prevention Management (3)  
 KNH 213 Global and Community Nutrition (3)  
 KNH 409 Nutrition for Sport and Fitness (3)  
 KNH 432 Nutrition Across the Life Span (3)

### Sport Management Minor

(18 semester hours)

This minor focuses on the knowledge and skills needed for administrative or managerial positions in sport at various levels (from youth to elite sport) and in various context (from community recreational to professional sport). This minor is open to all university students except Sport Leadership and Management majors who are excluded from this minor.

#### Program Requirements

##### **All of these:**

KNH 212 Sport Management (3)  
 KNH 313 Sport Economics and Finance (3)  
 KNH 414 Facilities and Event Management in Sport (3)  
 KNH 416 Sport Marketing (3)

##### **ONE of these:**

KNH 453M Ethics in Sports (3)  
 KNH 453O Legal Issues for KNH Professionals (3)  
 KNH 4536 Sport Administration (3)  
 KNH 472 Sport in Schools and Colleges (3)

##### **ONE of these:**

KNH/BWS/SOC 279 African Americans in Sport (3)  
 KNH 378 Sport, Power, and Inequality (3)  
 KNH 448 International Perspectives in Sport (3)  
 KNH 471 Sport, Leisure and Aging (3)  
 KNH 473 Children and Youth in Sport (3)  
 KNH 475 Women, Gender Relations, and Sport (3)

# College of Engineering and Computing

## Advising Office

106 Benton Hall

Phone: 513-529-0700

www.cec.MiamiOH.edu

## Degrees and Majors Offered:

**Bachelor of Science in Computer Science**

**Bachelor of Science in Software Engineering**

**Bachelor of Science in Engineering in:**

Bioengineering  
Chemical Engineering  
Computer Engineering  
Electrical Engineering  
Engineering Management  
General Engineering  
Manufacturing Engineering  
Mechanical Engineering

### Minors in:

Bioinformatics  
Bioengineering  
Chemical Engineering  
Computational Science and Engineering  
Computer Engineering  
Computer Science  
Electrical Engineering  
Manufacturing Engineering  
Mechanical Engineering  
Paper Engineering

## General Information

The College of Engineering and Computing's mission is to serve society by providing high quality undergraduate and graduate education in the fields of computing, and engineering. We are committed to creating an environment for teaching, learning, and scholarship that is intellectually stimulating, interactive, and innovative; 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 College of Engineering and Computing 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 College of Engineering and Computing offers the following Bachelor's degrees:

Majors:

**Bachelor of Science in Computer Science**

**Bachelor of Science in Software Engineering**

**Bachelor of Science in Engineering with major in:**

Bioengineering  
Chemical Engineering  
Computer Engineering  
Electrical Engineering  
Engineering Management  
General Engineering  
Manufacturing Engineering  
Mechanical Engineering

**Minors:**

Bioinformatics  
Bioengineering  
Chemical Engineering  
Computational Science and Engineering  
Computer Engineering  
Computer Science  
Electrical Engineering  
Manufacturing Engineering  
Mechanical Engineering  
Paper Engineering

**Certificate Program:**

Leadership  
Paper Science and Engineering

## First-Year Course Selection for Undeclared Students

The College of Engineering and Computing has developed the following first-year course pattern for students who have not declared a major and who want to progress satisfactorily in engineering and computing majors while maintaining maximum flexibility in considering other science/math-based programs. Faculty advisors are available at summer orientation to help you select courses within this pattern. You will be assigned a faculty advisor to help you with course and career selection while you remain an undeclared major. Once you have selected a major, a faculty advisor in that area will be assigned to you.

If you have already chosen a major in engineering or computing, please refer to the program description for your chosen major later in this section for recommended first-year course selections.

If you are undecided about your major, but considering a major in the College of Engineering and Computing, select courses within the following pattern with the advice of a faculty advisor:

### Fall Semester (16-19 semester hours)

CEC 101 Computing, Engineering, and Society (1)  
ENG 111 Composition and Rhetoric (3) (MPF I) or equivalent  
MTH 151 Calculus I (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)  
Global Miami Plan elective (3) (IIA, IIB, or III) or  
CSE 174 Fundamentals of Programming and Problem Solving (3)

### Spring Semester (16-19 semester hours)

CPB 102 Introduction to Chemical and Bioengineering (3) or  
CSE/ECE 102 Introduction to Computing and Engineering (3) or  
MME 102 Introduction to Mechanical and Manufacturing Engineering (3)  
ENG 112 Composition and Literature (3) (MPF I)  
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  
Global Miami Plan electives (IIA, IIB, or III 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, 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 College have liberal education electives in the humanities, fine arts, social science and Thematic Sequence components of the Global Miami Plan for Liberal Education. You are encouraged to seek advice from a faculty advisor 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' cultural perspectives and understanding and to help understand the needs of clients in computing and engineering 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 will find their credits adaptable to one of the bachelor's degree programs in the College. Consult a faculty advisor 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 College of Engineering and Computing 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

The Engineering and Computing 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 College's programs continually improve and meet society's changing needs.

The College and our departments are also advised by student advisory councils to continually improve our programs.

## Intern and Co-op Opportunities

Internships and co-ops provide an opportunity for students in engineering and computing 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 intern and co-op 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 computing seniors. Placement rates for graduates of the College have consistently remained high. Placement services

are available to all Miami students through the Office of 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.

## Divisional Requirements

**DOUBLE MAJORS:** Students with two majors in the College of Engineering and Computing must take a minimum of 15 different/additional credit hours in their second major beyond the requirements of their first major.

If you have any questions about this requirement, please contact your faculty academic advisor.

## 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 the help of the Engineering and Computing Advisory Council representatives from business, industry and other areas, the College has articulated broad outcome characteristics desired of our graduates.

College of Engineering and Computing graduates should be able to:

- Define and solve problems
- Make ethical choices and act responsibly
- 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 GPA for required departmental courses in your major. Specific course requirements for each of the College's majors are listed in this chapter.

## Major Programs: College of Engineering and Computing

## Bioengineering Bachelor of Science in Engineering

For information, contact the Department of Chemical, Paper and Biomedical 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, and global perspectives.

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 Educational Objectives

The educational objectives of the program are:

- The graduates will have interdisciplinary training in bioengineering that will allow them to have successful careers in industry, research and development, plant design and manufacturing, and in regulatory/governmental, academic, and clinical work.
- The graduates will have the organizational, leadership, and communication skills to achieve success in their chosen careers.
- The graduates will have independent critical thinking and problem solving skills that can be applied to support interdisciplinary teams that may include physicians, cell and molecular biologists, physiologists, geneticists, and other engineers.
- Graduates will have life-long learning skills and awareness of ethical responsibilities that will allow successful adaptation to the rapidly changing field of bioengineering.
- Graduates will have sound training in mathematics, the biological sciences, liberal arts, engineering and sciences that will facilitate successful pursuit of advanced degrees in medicine, law, business, and engineering or related fields.

### Student Outcomes:

These student outcomes prepare our graduates to attain the program educational objectives listed above.

- Ability to apply knowledge of mathematics, science, and engineering.
- Ability to design and conduct experiments, as well as to analyze and interpret data.
- Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental social, political, ethical, health and safety, manufacturability, and sustainability.
- Ability to function on multidisciplinary teams.
- Ability to identify, formulate, and solve engineering problems.

- Understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- Recognition of the need for, and an ability to engage, in life-long learning.
- Knowledge of contemporary issues.
- Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

### Credit/No-credit Policy

All courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

### Grade Requirements

You must earn a grade of C or better in CHM 142 and MTH 251.

### Program requirements:

#### Core Requirements (70-73 hours):

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4) (MPF IVA)  
 BIO 203 Introduction to Cell Biology (3)  
 BIO 305 Human Physiology (4)  
 CHM 141,144 College Chemistry and Lab (5) (MPF IVB LAB)  
 CHM 142,145 College Chemistry and Lab (5)  
 ENG 313 Technical Writing (3)  
 MTH 151 Calculus I (5) (MPF V)  
 MTH 245 Differential Equations for Engineers (3)  
 MTH 251 Calculus II (4) **or**  
 MTH 249 Calculus II (5)  
 PHY 181, 183 The Physical World and Lab (5) (MPF IVB LAB)  
 PHY 182, 184 The Physical World and Lab (5) (MPF IVB LAB)  
 Miami Plan English Composition (6) (MPF I)  
 Miami Plan Fine Arts (3) (MPF IIA)  
 Miami Plan Humanities (3) (MPF IIB)  
 Miami Plan Social Sciences (3) (MPF IIC)  
 (Pre-medical concentration students - consult with advisor for appropriate courses)  
 Miami Plan Global Perspectives (6-9)

#### Bioengineering and Engineering Science (45-46 hours)

CPB 102 Introduction to Chemical and Bioengineering (3) or equivalent  
 CPB 204 Materials and Energy Balance (3)  
 CPB 219 Statics, Dynamics, and Mechanics of Materials (4)  
 CPB/MME 314 Engineering Thermodynamics (3)  
 CPB/MME 341 Engineering Economics (3)  
 CPB 417 Biomedical Engineering (3)  
 CPB 418 Biological Transport Phenomena (4)  
 CPB 419 Biomaterials (3)  
 CPB 421 Bioethics (1)  
 CPB 422 Biological Systems and Controls (3)  
 CPB 423 Biomechanics (3)  
 CPB 471 Engineering Design I (2) **and**  
 CPB 472 Engineering Design II (2) **or**  
 CSE 448 Senior Design Project (2) **or**  
 ECE/MME 448 Senior Design Project (2) **and**  
 CSE449 Senior Design Project (2) **or**  
 ECE/MME 449 Senior Design Project (1-2)  
 CEC 101 Computing Engineering and Society (1)  
 ECE 205 Electric Circuit Analysis I (4)  
 MME 213 Computational Methods in Engineering (3)

Concentration areas (20-29 hours)

#### Complete one concentration:

##### Bioinformatics and Computational Biology (28-29 hours)

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)  
 CSE 456 Bioinformatic Principles (3)  
 ECE 345 Applied Probability and Statistics for Engineers (3)  
 MTH 231 Elements of Discrete Mathematics (3)

#### Select one from the following two courses:

CSE 466 Bioinformatics Computing Skills (3) **or**  
 CSE 470B Computational Genomics (3)

**Select one from the following four courses:**

STA 363 Introduction to Statistical Modeling (3)  
 STA 402 Statistical Programming (3)  
 STA 463 Regression Analysis (4)  
 STA 466 Experimental Design Methods (4)

**Biomedical Engineering (20 hours)**

CHM 231 Fundamentals of Organic Chemistry (4)  
 ECE/MME 303 Computer-Aided Experimentation (3)  
 ECE 306 Signals and Systems (3)  
 ECE 426 Biomedical Signal Analysis (3)  
 ECE 345 Applied Probability and Statistics for Engineers (3) **or**  
 STA 301 Applied Statistics (3)

**Select one from below (to satisfy Thematic Sequence Requirement):**

CHM 332 Outlines of Biochemistry (4) **or**  
 CHM 432 Fundamentals of Biochemistry (4) **or**  
 PHY 421 Molecular and Cellular Biophysics (4) **or**  
 PHY 422 Physics for Medicine and Biology (4)

**Bioprocessing (20 hours)**

CHM 231 Fundamentals of Organic Chemistry (4)  
 CHM 332 Outlines of Biochemistry (4) **or**  
 CHM 432 Fundamentals of Biochemistry (4)  
 CHM 471 Biophysical Chemistry I (3)  
 CPB 415 Chemical Kinetics and Reactor Design (3)  
 CPB 416 Biochemical Engineering (3)  
 ECE 345 Random Signal Processing (3) **or**  
 STA 301 Applied Statistics (3)

**Pre-medical (23 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 Outlines of Biochemistry (4) **or**  
 CHM 432 Fundamentals of Biochemistry (4)  
 CPB 415 Chemical Kinetics and Reactor Design (3)  
 ECE 345 Applied Probability and Statistics for Engineers (3) **or**  
 STA 301 Applied Statistics (3)

Any one engineering junior/senior level technical elective (3) (approved by advisor)

## Chemical Engineering Bachelor of Science in Engineering

For information, contact the Department of Chemical, Paper and Biomedical Engineering, 64 Engineering Building (513-529-0760).

This program is accredited by the Engineering Accreditation Commission of ABET <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 21<sup>st</sup> 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, global perspectives, 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.

**Program 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 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 their 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.

**Student Outcomes**

These student outcomes prepare our graduates to attain the program educational objectives listed above.

- A. Ability to apply knowledge of mathematics, science, and engineering.
- B. Ability to design and conduct experiments, as well as to analyze and interpret data.
- C. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental social, political, ethical, health and safety, manufacturability, and sustainability.
- D. Ability to function on multidisciplinary teams.
- E. Ability to identify, formulate, and solve engineering problems.
- F. Understanding of professional and ethical responsibility.
- G. An ability to communicate effectively.
- H. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- I. Recognition of the need for, and an ability to engage in life-long learning.
- J. Knowledge of contemporary issues.
- K. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Credit/No-Credit Policy**

All courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

**Grade Requirements**

You must earn a grade of C or better in the following courses: CHM 142, CPB 204, and PHY 181.

## Transfer Credit Policy

To obtain transfer credit for any 300- or 400-level chemical, paper and biomedical 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 CPB 204, CPB 313, CPB 314, CPB 403, and CPB 414. Contact the department if transferring into this program.

## Program Requirements: Chemical Engineering (133 - 144 semester hours)

### Core Requirements (46 hours):

CHM 141,144 College Chemistry and Lab (5) (MPF IVB LAB)  
CHM 142,145 College Chemistry and Lab (5)  
CHM 241, 242 Organic Chemistry (3,3) **or**  
CHM 251, 252 Organic Chemistry for Chemistry Majors (3, 3)  
CHM 244 Organic Chemistry Laboratory (2)  
CHM 451 Physical Chemistry (3)  
ENG 313 Technical Writing (3)  
MTH 151 Calculus I (5) (MPF V)  
MTH 245 Differential Equations for Engineers (3)  
MTH 251 Calculus II (4) **or**  
MTH 249 Calculus II (5)  
MTH 252 Calculus III (4)  
PHY 181,182, 183, 184 The Physical World and Lab (10) (MPF IVB LAB)

**Note:** Required to take the Fundamentals of Engineering Exam and make a "good faith" effort to pass the exam.

## Chemical Engineering and Engineering Science Courses (60-64 hours)

### Engineering Science (13-14 hours)

CEC 101 Computing, Engineering & Society (1)  
CPB 102 Introduction to Chemical and Bioengineering (3) or equivalent  
CPB/MME 313 Fluid Mechanics (3)  
CPB/MME 314 Thermodynamics (3)

### Select ONE of the following:

CPB 219 Statics and Mechanics of Materials (4)  
MME 211 Static Modeling of Mechanical Systems (3)

### Chemical Engineering Courses (31 hours)

CPB 204 Mass and Energy Balances (3)  
CPB 311 Unit Operations Lab (2)  
CPB/MME 313 Fluid Mechanics (3)  
CPB/MME 403 Heat Transfer (3)  
CPB 412 Chemical Engineering Thermodynamics (3)  
CPB 414 Mass Transfer (3)  
CPB 415 Chemical Kinetics and Reactor Design (3)  
CPB 451 Unit Operations Laboratory II (2)  
CPB 471 Engineering Design I (2) (MPC)  
CPB 472 Engineering Design II (2) (MPC)  
CPB 473 Chemical Process Design (3)  
CPB 482 Process Control (3)  
CPB 490 Special Topics in Paper and Chemical Engineering (1-3)

### Technical electives (15-18 hours)

Complete one of the following concentrations:

#### Paper Science (16-18)

CPB 201 Principles of Paper Science and Engineering (3)  
CPB 202 Pulp and Paper Physics (3)  
CPB 301 Pulp and Paper Chemistry (3)  
CPB 404 Paper Making (3)  
CPB 490 Special Topics (1)

### Select from one of the following:

CHM 332 Outlines of Biochemistry (4) **or**  
CHM 432 Fundamentals of Biochemistry (4)  
CHM 363 Analytical Chemistry (3) **and**  
CHM 364 Analytical Chemistry Laboratory (2)  
MTH 222 Introduction to Linear Algebra (3)  
MTH 231 Elements of Discrete Mathematics (3)

## Biochemical Engineering (15-16)

### Select one of the following:

MME 223 Engineering Materials (3) **or**  
CPB 202 Pulp and Paper Physics (3)  
CPB 416 Biochemical Engineering (3)  
CPB 417 Biomedical Engineering (3)

### Select one of the following:

CHM 432 Fundamentals of Biochemistry (4) **and**  
CHM 472 Biophysical Chemistry I (3)  
CHM 432 Fundamentals of Biochemistry (4) **and**  
CPB 419 Biomaterials (3) **or**  
CPB 422 Biological Systems and Controls (3) **or**  
CPB 423 Biomechanics (3)

## Environmental Engineering (15-17)

### Select one of the following:

MME 223 Engineering Materials (3) **or**  
CPB 202 Pulp and Paper Physics (3)  
CPB 405 Industrial Environmental Control (3)  
CPB 441 Pollution Prevention (3)  
CPB 442 Air Pollution Control (3)

### Select one from the following:

CHM 332 Outlines of Biochemistry (4) **or**  
CHM 432 Fundamentals of Biochemistry (4)  
CHM 363 Analytical Chemistry (3) **and**  
CHM 364 Analytical Chemistry Laboratory (2)  
MTH 222 Introduction to Linear Algebra (3)  
MTH 231 Elements of Discrete Mathematics (3)

## General Chemical Engineering (15-17)

### Select one of the following:

MME 223 Engineering Materials (3) **or**  
CPB 202 Pulp and Paper Physics (3)  
Choose 3 courses in CPB of which at least 2 must be at 400 level

### Select one from the following:

CHM 332 Outlines of Biochemistry (4) **or**  
CHM 432 Fundamentals of Biochemistry (4)  
CHM 363 Analytical Chemistry (3) **and**  
CHM 364 Analytical Chemistry Laboratory (2)  
MTH 222 Introduction to Linear Algebra (3)  
MTH 231 Elements of Discrete Mathematics (3)

# Computer Engineering Bachelor of Science in Engineering

For information, contact the Department of Electrical and Computer Engineering, 260 Garland Hall (513-529-0740).

This program is accredited by the Engineering Accreditation Commission of ABET <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, global perspectives, 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.

### Program Educational Objectives

Educational objectives describe the career and professional accomplishments that the program is preparing graduates to achieve. The objectives of the computer engineering program are:

- Demonstrate the application of modern tools and methodologies to computer engineering problems and decision making.
- Develop solutions and make professional decisions with an understanding of the impact on societal, economic, global, and environmental issues.
- Demonstrate effective communication, leadership and teamwork skills that contribute to the success of their organizations.
- Exhibit a commitment to professional and ethical practices, continuous improvement, and lifelong learning.

### Student Outcomes

These student outcomes prepare our graduates to attain the program educational objectives listed above.

- 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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

### Program Requirements: Computer Engineering

(129 semester hours minimum)

#### Core Requirements (40 hours)

CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB, LAB)  
ECO 201 Principles of Microeconomics (3) (MPF IIC)  
ENG 313 Technical Writing (3)  
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)  
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)

#### 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 (4-8 hours)

CEC 101 Computing, Engineering, and Society (1)  
CSE/ECE 102 Introduction to Computing and Engineering (3) or equivalent  
ECE/MME 448 Senior Design Project I (2)  
ECE/MME 449 Senior Design Project II (2)

### Required Electrical and Computer Engineering (33 hours)

ECE 205 Electric Circuit Analysis I (4)  
ECE 287 Digital Systems Design (4)  
ECE 289 Computer Organization (3)  
ECE/MME 303 Computer-Aided Experimentation (3)  
ECE 304 Electronics (3)  
ECE 306 Signals and Systems (3)  
ECE 345 Applied Probability and Statistics for Engineers (3)  
ECE 387 Embedded System Design (4)  
ECE 425 Digital Signal Processing (3)  
ECE 461 Network Performance Analysis (3)

### Professional Computer Engineering Electives (9 hours)

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 465 Introduction to GPS (3)  
ECE 475 Software Receiver Technologies (3)  
ECE 491 Power Systems Engineering (3)  
ECE 493 Power Electronics (3)  
ECE 495 Electric Machinery and Drives (3)

### General Technical Electives (3 credits)

Choose 3 credits from the following list:

ECE 291 Energy Systems Engineering (3)  
Any additional course from the Professional Computer Engineering Electives list  
CSE 201, 241, 273, 283, 385, 386, 443, 464, 467, 471, 486  
MTH 331, 432, 438, 441, 451, 453  
PHY 281, 282/293, 286, 341, 421, 423, 441  
MME 211 or CPB 219 (not both), MME/CPB 314

General Technical Electives are subject to the following rules:

Courses cannot double-count as both Professional Computer Engineering 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.MiamiOH.edu>.

This program is accredited by the Computing Accreditation Commission of ABET <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, smart phone apps, 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 24% from 2008 to 2018, much faster than average for all occupations. This employment growth is due to the demand for increasing efficiency in network technology, computing speeds, software performance, and embedded systems. The median annual earnings for computer specialists ranges from \$74,000 to \$105,000. According to the National Association of Colleges and Employers, starting offers for graduates with a bachelor's degree in computer science averaged \$61,407.

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.

### Program 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 a sufficient 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

**Breadth.** Computer Science graduates will have a broad liberal education enabling them to:

- Demonstrate adaptability or leadership by, for example, being promoted, moving up to a better job, or by taking a leadership role in a team.
- Demonstrate an understanding of the context and broader impacts of technology in their organization by, for example, engaging stakeholders outside their immediate team, or by identifying ethical, economic, cultural, legal or environmental issues related to work projects.

**Professionalism.** Computer Science graduates will be prepared for modern work environments, where they will:

- Apply their skills in clear communication, responsible teamwork, and time management by, for example, managing a team or project, working on multidisciplinary project teams, or communicating with external stakeholders.
- Demonstrate professional attitudes and ethics by, for example, assisting colleagues in professional development (e.g. mentoring), engaging in continuing education or training, participating in professional societies, engaging in service to the community, or contributing to an employer's efforts to comply with software licensing, protect privacy, or assure quality and safety.

To help to achieve the educational objectives, all computing and engineering programs offered by the College of Engineering and Computing (CEC) have outcomes, are designed to prepare graduates to attain the program educational objectives and to connect with the student outcomes defined by the Computing Accreditation Committee of ABET, <http://www.abet.org>.

For more information, visit our website at <http://cse.MiamiOH.edu>.

### Student Outcomes

CS.1: Explain and apply the key facts, concepts, principles, and theories of computer science;

CS.2: Analyze problems, and select and apply appropriate techniques from computer science and mathematics to solve them;

CS.3: Effectively use current techniques, skills, and tools necessary for computing practice;

CS.4: Design, implement, and test software systems that meet the needs of a client;

CS.5: Think critically in evaluating information and solving problems;

CS.6: Work effectively as a member or leader in a team;

CS.7: Recognize the need for and an ability to engage in continuing professional development;

CS.8: Communicate technical information effectively, both orally and in writing;

CS.9: Recognize the social, professional, cultural, and ethical issues involved in the use of computer technology and give them due consideration in decision making;

CS.10: Learn independently through the use of research papers, technical documents and tutorials.

### 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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, 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.MiamiOH.edu>.

### Program Requirements: Computer Science (128 semester hours minimum)

#### Core Requirements (18-24 hours)

COM 135 Public Expression and Critical Inquiry (3) **or**  
COM 231 Small Group Communication (3)  
ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**  
ECO 202 Principles of Macroeconomics (3) (MPF IIC)  
ENG 313 Technical Writing (3)

#### The following mathematics courses:

MTH 151 Calculus I (5) (MPF V)  
MTH 231 Elements of Discrete Mathematics (3)  
MTH 251 Calculus II (4) **or**  
MTH 249 Calculus II (5)

#### One of the following statistics options:

STA 301 Applied Statistics **or**  
STA 401 Probability (3, 3)

#### Choose one of the following science sequences:

PHYSICS: PHY 181, 182, 183, 184 plus a 3-hour Global Miami Plan\* Biological Science  
CHEMISTRY: CHM 141, 142, 144, 145, plus 4 hours of Global Miami Plan\* Natural Science (including a 3-hour Global Miami Plan\* Biological Science)

BIOLOGY: BIO/MBI 115, 116, plus 4 hours of Natural Science (including a 3-hour Global Miami Plan\* Physical Science)

**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 Core (44hours)

CSE 102 Introduction to Computing and Engineering (3)  
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 465 Comparative Programming Languages (3)  
 CSE 486 Introduction to Artificial Intelligence (3)  
 ECE 101 Computing, Engineering & 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.

#### **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 443 High Performance Computing (3)  
 CSE 451 Web Services and Service Oriented Architectures (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)  
 ECE 287 Digital Systems Design (4)  
 ECE 387 Embedded Systems Design (4)  
 ECE 461 Network Performance Analysis (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

\*Students in the Honors Program should consult with an advisor regarding possible alternatives to these courses.

**NOTE:** Students must earn a minimum of 128 credit hours to graduate. Additional free elective hours may need to be taken.

## **Electrical Engineering Bachelor of Science in Engineering**

For information, contact the Department of Electrical and Computer Engineering, 260 Garland Hall (513-529-0741).

This program is accredited by the Engineering Accreditation Commission of ABET <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.

### **Program Educational Objectives**

Educational objectives describe the career and professional accomplishments that the program is preparing graduates to achieve. The objectives of the electrical engineering program are:

- Demonstrate the application of modern tools and methodologies to electrical engineering problems and decision making.
- Develop solutions and make professional decisions with an understanding of the impact on societal, economic, global, and environmental issues.
- Demonstrate effective communication, leadership and teamwork skills that contribute to the success of their organizations.
- Exhibit a commitment to professional and ethical practices, continuous improvement, and lifelong learning.

### **Student Outcomes**

These student outcomes prepare our graduates to attain the program educational objectives listed above.

- 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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

### **Program Requirements: Electrical Engineering (129 semester hours minimum)**

#### **Core Requirements (43 hours)**

CHM 141,144 College Chemistry and Lab (3, 2) (MPF IVB LAB)  
 CSE 262 Technology, Ethics, and Global Society (3) (MPF IIB, IIC)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC)  
 ENG 313 Technical Writing (3)  
 MTH 151 Calculus I (5) (MPF V)  
 MTH 251 Calculus II (4) or  
 MTH 249 Calculus II (5)  
 MTH 222 Linear Algebra (3)  
 MTH 252 Calculus III (4)  
 MTH 347 Differential Equations (3)  
 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)

#### **Computer Science (3 hours)**

CSE 174 Fundamentals of Programming and Problem Solving (3)

#### **General Engineering (8 hours)**

CEC 101 Computing, Engineering, and Society (1)  
 CSE/ECE 102 Introduction to Computing and Engineering (3) or equivalent  
 ECE 448 Senior Design Project I (2)  
 ECE 449 Senior Design Project II (2)

#### **Required Electrical and Computer Engineering (36 hours)**

ECE 205 Electric Circuit Analysis I (4)

ECE 287 Digital Systems Design (4)  
 ECE/MME 303 Computer-Aided Experimentation (3)  
 ECE 304 Electronics (3)  
 ECE 306 Signals and Systems (3)  
 ECE 325 Applied Electromagnetics (3)  
 ECE 345 Applied Probability and Statistics for Engineers (3)  
 ECE 387 Embedded System Design (4)  
 ECE 425 Digital Signal Processing (3)  
 ECE/MME 436 Control of Dynamic Systems (3)  
 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 465 Introduction to GPS (3)  
 ECE 475 Software Receiver Technologies (3)  
 ECE 491 Power Systems Engineering (3)  
 ECE 493 Power Electronics (3)  
 ECE 495 Electric Machinery and Drives (3)

#### **General Technical Electives (9 credits)**

Choose 9 credits from the following list:

Additional courses from the Professional EE Elective list

ECE 289, ECE 291  
 MTH 331, 432, 438, 441, 451, 453  
 PHY 281 282/293, 286, 341, 421, 423, 441  
 CSE 271, 274, 283  
 MME 211 or CPB 219 (not both), CPB/MME 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, CEC Engineering Management Committee, 64 Garland Hall (513-529-0767).

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 concentration (manufacturing engineering, environmental engineering, or paper science and engineering) 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 Electronics and Computing Concentrations. These are achieved and measured several years after the students graduate.

#### **Engineering Management with Manufacturing Engineering Concentration**

The concentration 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 Concentration**

The educational objectives of the concentration 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 Concentration**

The educational objectives of the concentration 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 Electronics and Computing Concentration**

The concentration develops students who:

- Solve electrical, computer, and related problems in a business or engineering environment by applying computing, business, math, science, and engineering fundamentals.
- Design and create electrical and computer systems to meet client needs in business and engineering applications.
- Apply business management skills in a technical environment.
- Communicate effectively orally and in writing.
- Serve as an effective team member.
- Serve as an effective team leader.
- Serve on multidisciplinary teams.
- Integrate and utilize fundamental knowledge of engineering, business, and liberal arts in their job.
- Know and practice ethical and social responsibility.
- Engage in continuous learning and intellectual growth.

## Credit/No Credit Policy

All courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

## Program Requirements: Engineering Management

The number of hours needed to graduate depends on your choice of concentration, 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.

### Core Requirements (16 hours)

CHM 141,144 College Chemistry/Lab (5) (MPF IVB)  
ECO 201 Principles of Microeconomics (3) (MPF IIC)  
ENG 313 Technical Writing (3)  
MTH 151 Calculus I (5) (MPF V)  
MTH 251 Calculus II (4) **or**  
MTH 249 Calculus II (5)  
MTH 245 Differential Equations for Engineers (3) **or**  
MTH 347 Differential Equations (3)  
PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB)  
PHY 182, 184 The Physical World/Lab (4, 1) (MPF IVB)

### General Engineering (10 hours)

CEC 101 Computing, Engineering & Society (1)  
CPB 102 Introduction to Chemical and Bioengineering (3) **or**  
CSE/ECE 102 Introduction to Computing and Engineering (3) **or**  
MME 102 Introduction to Mechanical and Manufacturing Engineering (3)  
EGM/MGT 411 Leading and Managing Projects (3)  
MME/CPB 341 Engineering Economics (3)

### Remaining Business Core Courses (21 hours)

ACC 221 Introduction to Financial Accounting (3)  
ECO 202 Principles of Macroeconomics (3)  
MGT 291 Organizational Behavior and Theory (3)  
MGT 302 Operations Management (3)  
MKT 291 Principles of Marketing (3)

Management Track - complete one (6 hrs):

#### Entrepreneurship

ESP 467 Entrepreneurship: New Ventures (3)  
ESP 481 Technology, Products, and Ventures (3)

#### Human Resources

Choose two of the following:

MGT 303 Human Resources Management (3)  
MGT 402 Employment Law (3)  
MGT 405 Labor Relations and Conflict Management (3)

#### Materials Management

Choose two of the following:

ISA 303 Enterprise Systems (3)  
MGT 432 Global Strategic Sourcing (3)  
MKT 431 Logistics Management (3)

#### Operations Management

MGT 451 Operations Planning and Scheduling (3)  
MGT 453 Productivity Improvement (3)

### Manufacturing Engineering Concentration (43-44 hrs)

CSE 372 Analysis of Stochastic Systems (3)  
ECE 205 Electric Circuit Analysis (4)  
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/CPB 314 Engineering Thermodynamics (3)  
MME 334 Quality Planning and Control (3)  
MME 335 Design of Experiments for Quality Control (1)  
MME 434 Manufacturing Design (3)  
MME 437 Manufacturing Automation (3)  
MME/ECE 448/449 Senior Design Project I, II (2, 2)  
STA 301 Applied Statistics (3)

### Paper Science and Engineering Concentration (50 hrs):

CHM 142, 145 College Chemistry and Lab (3, 2)  
CHM 231 Fundamentals of Organic Chemistry (4)  
CPB 201 Principles of Paper Science and Engineering (3)  
CPB 202 Pulp and Paper Physics (3)  
CPB 204 Materials and Energy Balance (3)  
CPB 219 Statics and Mechanics of Materials (4) **or**  
MME 211 Static Modeling of Mechanical Systems (3)  
CPB 301 Pulp and Paper Chemistry (3)

CPB 311 Unit Operations Laboratory I (2)  
CPB/MME 313 Fluid Mechanics (3)  
CPB/MME 314 Engineering Thermodynamics (3)  
CPB 404 Papermaking (3)  
CPB 471 Engineering Design I (2) (MPC)  
CPB 472 Engineering Design II (2) (MPC)  
CPB 482 Process Control (3)  
CPB 490 Special Topics (1)  
STA 301 Applied Statistics (3)

Choose one of the following (3 hrs):

CPB 405 Industrial Environmental Control (3)  
CPB 490 Special Topics (3)

### Environmental Engineering Concentration (46 hrs):

CHM 142, 145 College Chemistry and Lab (3, 2)  
CHM 231 Fundamentals of Organic Chemistry (4)  
CPB 204 Materials and Energy Balance (3)  
CPB 219 Statics and Mechanics of Materials (4) **or**  
MME 211 Static Modeling of Mechanical Systems (3)  
CPB 244 Introduction to Environmental Engineering (3)  
CPB 311 Unit Operations Laboratory I (2)  
CPB/MME 313 Fluid Mechanics (3)  
CPB/MME 314 Engineering Thermodynamics (3)  
CPB 405 Industrial Environmental Control (3)  
CPB 415 Chemical Kinetics and Reactor Design (3)  
CPB 441 Pollution Prevention in Environmental Management (3)  
CPB 442 Air Pollution Control (3)  
CPB 471 Engineering Design I (2)  
CPB 472 Engineering Design II (2)  
STA 301 Applied Statistics (3)

### Electronics and Computing Concentration (42-43 hrs):

CSE 174 Fundamentals of Programming and Problem Solving (3) **or**  
CSE 153 Introduction to C/C++ Programming (3)  
ECE 205 Electric Circuit Analysis I (4)  
ECE 287 Digital Systems Design (4)  
ECE/MME 303 Computer-Aided Experimentation (3)  
ECE 304 Electronics (3)  
ECE 306 Signals and Systems (3)  
ECE 345 Applied Probability and Statistics for Engineers (3) **or**  
STA 301 Applied Statistics (3)  
ECE 387 Embedded Systems Design (4)  
ECE/MME 448/449 Senior Design Project (2, 2) (MPC)  
MTH 222 Introduction to Linear Algebra (3) **or**  
MTH 231 Elements of Discrete Mathematics (3)

### Select minimum 9 hours of electives from the list below:

Any 200-level or higher ECE course  
CSE 271 Object-Oriented Programming (3)  
CSE 274 Data Abstraction and Data Structures (3)  
MTH 252 Calculus III (4)

## 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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, 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 Sequence. 128-138 semester hours)

#### Core Requirements

MTH 151 Calculus I (5)  
MTH 251 Calculus II (4) **or**

MTH 249 Calculus II (5)

At least two additional MTH or STA courses depending on your Engineering Concentration area (6-8).

#### Natural and Physical Sciences (18-19 hours)

PHY 181, 183 The Physical World and Lab (4, 1) (MPF IVB)  
CHM 141, 144 College Chemistry and Lab (3, 2) (MPF IVB)

#### Completion of one of the following science sequences:

CHM 141, 142, 144, 145 College Chemistry and Lab (3, 2) (MPF IVB)  
PHY 181, 182, 183, 184 The Physical World and Lab (4, 1) (MPF IVB, LAB)

BIO/MBI 115, 116 (MPF IVA)

If you complete the PHY or CHM sequence, you will also need to complete a Miami Plan Biological Science (MPF IVA)\*

#### English Composition (9 hours)

Miami Plan English Composition (6) MPF I\*  
ENG 313 Technical Writing (3)

#### Fine Arts, Humanities & Social Science (9 hours)

Miami Plan Fine Arts (3) MPF IIA\*  
Miami Plan Humanities (3) MPF IIB\*  
ECO 201 Principles of Microeconomics (3) **or**  
ECO 202 Principles of Macroeconomics (3) (MPF IIC)\*

#### Global Perspectives (6-9 hours)\*

Study Abroad (6 hours to fulfill requirement) **or**  
G-courses (9) **or**  
G-cluster (9)

#### Foreign Language (4-8 hours)

Pass a language course at the 102-level or higher (excludes any course taught in English).

#### Social and Ethical Perspectives on Technology (3 hours)

#### Choose one of the following courses:

BIO 255 Introduction to Biotechnology (3)  
CEC 266 Metal on Metal: Engineering and Globalization in Heavy Metal Music (3) MPF III, V  
CSE 262 Technology, Ethics, and Global Society (3) MPF IIB  
IES 275 Principles of Environmental Science (3)  
IES 431 Principles and Applications of Environmental Science (3)  
IES 450 Environmental Law (3)  
IMS 201 Information Studies in the Digital Age (3)  
MUS/IMS 221 Music Technologies (3) MPF IIA, V

#### Engineering Core (16 hours)

CEC 101 Computing, Engineering, and Society (1)  
CPB 102 Introduction to Chemical and Bioengineering (3) **or**  
CSE/ECE 102 Introduction to Computing and Engineering (3) **or**  
MME 102 Introduction to Mechanical and Manufacturing Engineering (3)

#### An introductory programming course:

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:

CPB 204 Material and Energy Balances (3)  
CSE 273 Optimization Modeling (3)  
ECE 205 Electric Circuit Analysis I (4)  
MME 211 Static Modeling of Mechanical Systems (3)

#### Engineering Concentration (18 hours minimum)

The concentration in engineering must consist of at least six courses (minimum of 18 credit hours) within SEAS which are related thematically or departmentally. At least two of these courses must be at the advanced level (300 or above). Students are required to develop their Engineering Concentration with the help of their faculty advisor.

#### Capstone Experience (3-4 hours)

**Select one of the following two-semester capstone experiences; these courses are in addition to the hours required for the Engineering Concentration area:**

CPB 471,472 Engineering Design I, II (2, 2) MPC  
CSE 448, 449 Senior Design Project (2, 2) MPC  
ECE 448, 449 Senior Design Project (2, 2) MPC  
MME 448,449 Senior Design Project (2, 2) MPC

#### Non-Engineering Focus Area and Thematic Sequence (18 hours)

The focus area requirement can be filled by (1) completing a minor outside CEC, (2) completing the pre-professional requirements for advanced study in a health care field or law, (3) completing another major or co-major outside CEC, or (4) proposing and receiving approval for a cohesive group of courses outside CEC that includes 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 Garland Hall (513-529-0710).

This program is accredited by the Engineering Accreditation Commission of ABET <http://www.abet.org>.

The primary mission of the department is to prepare high quality graduates to meet the emerging needs of society and industry. Manufacturing engineering deals with product and process design. It requires the 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 are also 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.

### Program Educational Objectives

The following are the educational objectives for the Manufacturing Engineering Program. Within five years of graduating alumni of the Miami University Mechanical and Manufacturing Engineering Department programs will demonstrate achievement in the areas of:

- Continuous Growth (lifelong learning, professionalism, ethics, liberal arts), as measured by career progression, graduate studies, training, workshops, conferences, webinars, etc.
- Solving problems in appropriate context (complexity/complex problems, societal needs, global issues, liberal arts, engineering research/design/analysis), as measured by solving technical or managerial problems, using tools for problem solving, completing projects, work or grad school assignments.
- Working collaboratively (teamwork, collaborative environment, communication skills), as measured by team experiences/projects, presentations, written reports.
- Exhibiting Leadership (personal, organizational, technical, ethical), as measured by positions, technical or administrative project leader, initiatives, mentoring, service, etc.

### Student Outcomes:

These student outcomes prepare our graduates to attain the program educational objectives listed above.

- Ability to apply knowledge of mathematics, science, and engineering.
- Ability to design and conduct experiments, as well as to analyze and interpret data.
- Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental social, political, ethical, health and safety, manufacturability, and sustainability.
- Ability to function on multidisciplinary teams.
- Ability to identify, formulate, and solve engineering problems.
- Understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- Recognition of the need for, and an ability to engage in life-long learning.
- Knowledge of contemporary issues.
- Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- An ability to design manufacturing processes.
- An ability to design products and the corresponding processing machinery.
- An ability to create competitive advantage by manufacturing planning, strategy, and control.
- An ability to analyze, synthesize, and control manufacturing operations using statistical methods.
- An ability to make technical inferences about a manufacturing process by measuring process variables.

### 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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

### Program Requirements

(128 semester hours minimum)

#### Core Requirements (36 hrs)

CHM 141,144 College Chemistry/Lab (3, 2) (MPF IVB LAB)  
ECO 201 Principles of Microeconomics (3) (MPF IIC)

ENG 313 Technical Writing (3)

MTH 151 Calculus I (5) (MPF V)

MTH 245 Differential Equations for Engineers (3)

MTH 251 Calculus II (4) or

MTH 249 Calculus II (5)

PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB LAB)

PHY 182, 184 The Physical World/Lab (4, 1)

STA 301 Applied Statistics (3)

#### Engineering Science (22 hours)

ECE 205 Electric Circuit Analysis I (4)

MME 211 Static Modeling of Mechanical Systems (3)

MME 223 Engineering Materials (3)

MME 311 Dynamic Modeling of Mechanical Systems (3)

MME 312 Mechanics of Materials (3)

MME 313 Fluid Mechanics (3)

MME/CPB 314 Engineering Thermodynamics (3)

#### Manufacturing Engineering Core (36 hours)

CEC 101 Computing, Engineering, and Society (1)

MME 102 Introduction to Mechanical and Manufacturing Engineering (3) or equivalent

MME 213 Computational Methods in Engineering (3)

MME 231 Manufacturing Processes (3)

MME/ECE 303 Computer-Aided Experimentation (3)

MME 334 Quality Planning and Control (3)

MME 335 Design of Experiments for Quality Control (1)

MME/CPB 341 Engineering Economics (3)

MME 411 Machine and Tool Design (4)

MME 434 Manufacturing Design (3)

MME 435 Manufacturing Competitiveness (3)

MME/ECE 436 Control of Dynamic Systems (3)

MME 437 Manufacturing Automation (3)

#### Senior Capstone Engineering Design (4 hours)

MME 448 Senior Design Project (MPC) (2)

MME 449 Senior Design Project (MPC) (2)

#### Technical Electives (6 hours)

##### Select two courses from the following list:

CPB 204 Material and Energy Balances (3)

CPB 244 Introduction to Environmental Engineering (3)

CPB 482 Process Control (3)

CSE 153 Introduction to C/C++ Programming (3) or

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)

ECE 287 Digital Systems Design (4)

ECE 291 Energy Systems Engineering (3)

ECE 302 MATLAB® and its engineering applications (3)

ECE 304 Electronics (3)

ECE 306 Signals and Systems (3)

MME 315 Mechanical Vibrations (3)

MME 360 Special Topics (1-3)

MME/CPB 403 Heat Transfer (3)

MME 412 Advanced Mechanics (3)

MME 414 Engineering Thermodynamics II (3)

MME 495 Introduction to Applied Nonlinear Dynamics (3)

PHY 286 Introduction to Computational Physics (3)

## Mechanical Engineering Bachelor of Science in Engineering

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Garland Hall (513-529-0710).

This program is accredited by the Engineering Accreditation Commission of ABET <http://www.abet.org>.

Mechanical Engineering encompasses the design and analysis of products and mechanical components of machines and systems.

It requires the ability to understand and apply mathematics, science, and engineering science, research concepts and apply modeling methods, simulate and test working conditions and their impact on the designed systems, and 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. The engineering program provides the student with a broad mechanical engineering education augmented by courses in manufacturing engineering, electrical engineering, computer science and engineering, economics, humanities, social science, global perspectives, and fine 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, in the analysis and design of varied products, and in non-technical sectors of the economy as well. Graduates are also 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.

### Program Educational Objectives

The following are the educational objectives for the Mechanical Engineering Program. Within five years of graduating, alumni of the Miami University Mechanical and Manufacturing Engineering Department programs will demonstrate achievement in the areas of:

- Continuous Growth (lifelong learning, professionalism, ethics, liberal arts), as measured by career progression, graduate studies, training, workshops, conferences, webinars, etc.
- Solving problems in appropriate context (complexity/complex problems, societal needs, global issues, liberal arts, engineering research/design/analysis), as measured by solving technical or managerial problems, using tools for problem solving, completing projects, work or grad school assignments.
- Working collaboratively (teamwork, collaborative environment, communication skills), as measured by team experiences/projects, presentations, written reports.
- Exhibiting Leadership (personal, organizational, technical, ethical), as measured by positions, technical or administrative project leader, initiatives, mentoring, service, etc.

### Student Outcomes

These student outcomes prepare our graduates to attain the program educational objectives listed above.

- a. Ability to apply knowledge of mathematics, science, and engineering.
- b. Ability to design and conduct experiments, as well as to analyze and interpret data.
- c. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental social, political, ethical, health and safety, manufacturability, and sustainability.
- d. Ability to function on multidisciplinary teams.
- e. Ability to identify, formulate, and solve engineering problems.
- f. Understanding of professional and ethical responsibility.
- g. An ability to communicate effectively.

- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. Recognition of the need for, and an ability to engage in life-long learning.
- j. Knowledge of contemporary issues.
- k. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- l. An ability to apply principles of engineering, basic science and mathematics (including multivariate calculus and differential equations) to solve engineering problems.
- m. An ability to model, analyze, design and realize physical systems, components or processes.
- n. The preparation to work professionally in both the thermal and mechanical systems areas.

### 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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, 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 advisor for course selection.

#### Core Requirements (39-40 hours)

CHM 141,144 College Chemistry/Lab (3, 2) (MPF IVB LAB)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC)  
 ENG 313 Technical Writing (3)  
 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) or  
 MTH 249 Calculus II (5)  
 PHY 181, 183 The Physical World/Lab (4, 1) (MPF IVB LAB)  
 PHY 182, 184 The Physical World/Lab (4, 1)  
 STA 301 Applied Statistics (3)

#### Engineering Science (22 hours)

ECE 205 Electric Circuit Analysis I (4)  
 MME 211 Static Modeling of Mechanical Systems (3)  
 MME 223 Engineering Materials (3)  
 MME 311 Dynamic Modeling of Mechanical Systems (3)  
 MME 312 Mechanics of Materials (3)  
 MME/CPB 313 Fluid Mechanics (3)  
 MME/CPB 314 Engineering Thermodynamics (3)

#### Mechanical Engineering Core (35 hours)

CEC 101 Computing, Engineering, and Society (1)  
 MME 102 Introduction to Mechanical and Manufacturing Engineering (3) or equivalent  
 MME 213 Computational Methods in Engineering (3)  
 MME 231 Manufacturing Processes (3)  
 MME/ECE 303 Computer-Aided Experimentation (3)  
 MME 315 Mechanical Vibrations (3)  
 MME/CPB 341 Engineering Economics (3)  
 MME/CPB 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)

#### Senior Capstone Engineering Design (4 hours)

MME 448 Senior Design Project (2) (MPC)  
 MME 449 Senior Design Project (2) (MPC)

#### Technical electives (6 hours)

**Select two courses from the following list:**

CPB 204 Material and Energy Balances (3)  
 CPB 244 Introduction to Environmental Engineering (3)  
 CPB 482 Process Control (3)



CSE 153 Introduction to C/C++ Programming (3) **or**  
 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)  
 ECE 287 Digital Systems Design (4)  
 ECE 291 Energy Systems Engineering (3)  
 ECE 302 MATLAB® and its engineering applications (3)  
 ECE 304 Electronics (3)  
 ECE 306 Signals and Systems (3)  
 MME 334 Quality Planning and Control (3)  
 MME 360 Special Topics (1-3)  
 MME 434 Manufacturing Design (3)  
 MME 435 Manufacturing Competitiveness (3)  
 MME 437 Manufacturing Automation (3)  
 MME 495 Introduction to Applied Nonlinear Dynamics (3)  
 PHY 286 Introduction to Computational Physics (3)

## 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.MiamiOH.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.

The U.S. Bureau of Labor job outlook for software engineers is excellent. Jobs are expected to grow 32% from 2008 to 2018, much faster than average for all occupations. This US bureau reports that "expanding Internet technologies have spurred demand for computer software engineers who can develop Internet, intranet, and World Wide Web applications." (<http://www.bls.gov/oco/ocos303.htm>)

### Student 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.MiamiOH.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 courses in chemistry, physics, biology, mathematics, statistics and those in the College of Engineering and Computing (CPB, CSE, ECE, MME, CEC) that are used to fulfill requirements of the major, must be taken for a grade.

### Program Requirements: Software Engineering (128 semester hours minimum)

#### Core Requirements (23-27 hours)

COM 135 Introduction to Public Expression and Critical Inquiry (3) **or**  
 COM 231 Small Group Communication (3)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**  
 ECO 202 Principles of Macroeconomics (3) (MPF IIC)  
 ENG 313 Technical Writing (3)

#### The following mathematics courses:

MTH 151 Calculus I (5) (MPF V)  
 MTH 231 Elements of Discrete Mathematics (3)  
 MTH 251 Calculus II (4) **or**  
 MTH 249 Calculus II (5)

#### One of the following statistics options:

STA 301 Applied Statistics (3) **or**  
 STA 401 Probability (3)

#### One of the following science sequences:

PHYSICS: PHY 181, 182, 183, 184, plus a 3-hour Global Miami Plan Biological Science  
 CHEMISTRY: CHM 141, 142, 143, 144 plus 4 hours of Global Miami Plan Natural Science (including a 3-hour Global Miami Plan\* Biological Science)  
 BIOLOGY: BIO/MBI 115, 116 plus 4 hours of natural science (including a 3-hour Global Miami Plan Physical Science)

Note: Software engineering majors are required to take at least 30 hours of mathematics (at or beyond MTH 151), statistics, and natural science courses

#### Engineering: Take all three (7 hours)

CEC 101 Computing, Engineering and Society (1)  
 CSE/ECE 102 Introduction to Computing and Engineering (3) or equivalent  
 ISA 406 IT Project Management (3)

#### Computer Science 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) **or**  
 ECE 289 Computer Organization (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)

\*CSE 481 Computing Approaches to Disease and Disability or 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.

#### Select one: (3 hours)

CSE 283 Data Communications and Networks (3)  
 CSE 381 Operating Systems (3)

#### Specialization Area: (12 hours)

See the department for a list of specialization areas or consult with your faculty advisor to define a custom specialization area.

## Minors

A minor is a specific program to be taken along with a major to complement your skills and to increase your career opportunities. Completing 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.

CPB 423 Biomechanics (3)  
ECE 205 Electric Circuit Analysis I (4)

## Bioinformatics

(19 semester hours)

For information, contact the Department of Computer Science and Software Engineering, 205 Benton Hall (513-529-0340).

Bioinformatics, or the application of computational techniques to molecular biology problems, is a fast-growing field of significant importance in both academia and industry. Students completing a bioinformatics minor will gain the basic knowledge of biology and programming needed to work in this area, as well as an understanding of how computational techniques can be used to advance our knowledge of biology and the life sciences.

### Program Requirements:

#### Required Courses:

BIO/MBI 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
BIO/CSE/MBI 256 Introduction to Programming for the Life Sciences (3) **or**  
CSE 271 Object-Oriented Programming (3)  
BIO/CSE/MBI 466 Bioinformatics Computing Skills (3) **or**  
CSE 470 Special Topics In CSE (3)  
STA 363 Introduction to Statistical Modeling (3) **or**  
STA 402 Statistical Programming (3) **or**  
STA 463 Regression Analysis (4) **or**  
STA 466 Experimental Design Methods (4)  
BIO/MBI or CHM at the 200-level or above (BIO 342 or MBI 365 strongly recommended)  
BIO/MBI 485/CSE 456 Bioinformatic Principles (3)

## Bioengineering

(19 semester hours)

For information, contact the Department of Chemical, Paper and Biomedical Engineering, 64 Engineering Building (513-529-0760).

The minor provides an understanding of the basic bioengineering principles, concepts and methodologies and how they are applied to the design of biomedical devices and/or systems.

A minimum cumulative GPA of 2.00 is required for all courses in the minor. None of these courses may be taken on a credit/no-credit basis.

### Program Requirements:

#### Prerequisites:

CHM 141, 144 College Chemistry/College Chemistry Laboratory (3, 2)  
CHM 142, 145 College Chemistry/College Chemistry Laboratory (3, 2)  
CPB 102 Introduction to Chemical and Bioengineering (3)  
MTH 245 Differential Equations for Engineers (3)  
PHY 181, 183 The Physical World/Physics Laboratory (4, 1)

#### Option 1 - for the non-chemical engineering major

##### Required courses:

CPB 204 Material and Energy Balances (3)  
CPB 219 Statics and Mechanics of Materials (4) **or**  
MME 211 Static Modeling of Mechanical Systems (3)  
CPB/MME 314 Engineering Thermodynamics (3)  
CPB 417 Biomedical Engineering (3)  
CPB 418 Biological Transport Phenomena (4)

##### One of the following:

CPB 419 Biomaterials (3)  
CPB 422 Biological Systems and Controls (3)  
CPB 423 Biomechanics (3)  
CSE 470B Computational Genomics (3)  
ECE 426 Biomedical Signal Analysis (3)  
MME 360A Fundamentals of Design of Medical Device (3)

#### Option 2 - for the chemical engineering major

CPB 416 Biochemical Engineering (3)  
CPB 417 Biomedical Engineering (3)  
CPB 419 Biomaterials (3)  
CPB 422 Biological Systems and Controls (3)

## Chemical Engineering

(20 semester hours)

For information, contact the Department of Chemical, Paper and Biomedical 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 GPA 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 CPB 1: Chemical Engineering Principles.

### Program Requirements

#### Prerequisites (a grade of C or better in the following):

CHM 142, 145 College Chemistry/Laboratory (3, 2) (MPT)  
MTH 245 Differential Equations for Engineers (3)  
CPB 219 Statics and Mechanics of Materials (4) **or**  
MME 211 Static Modeling of Mechanical Systems (3)  
PHY 181 The Physical World (4) (MPT)

#### All of these:

CHM 363 Analytical Chemistry (3)  
CHM 364 Analytical Chemistry Laboratory (2)  
CPB 204 Material and Energy Balances (3)  
CPB/MME 313 Fluid Mechanics (3)  
CPB/MME 314 Engineering Thermodynamics (3)  
CPB/MME 403 Heat Transfer (3)  
CPB 414 Mass Transfer (3)

## Computational Science and Engineering

(27 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 GPA in these courses.

### Program Requirements

#### Required Courses (18 hours):

CSE 241 Computational Modeling and Simulation (3)  
CSE 273 Optimization Modeling (3)  
MTH 151 Calculus I (5)  
MTH 251 Calculus II (4) **or**  
MTH 249 Calculus II/Honors Calculus II (5)  
MTH 453 Numerical Analysis (3)

#### Programming and Algorithms (3 hours - select one):

CSE 153 Introduction to C/C++ Programming (3)  
CSE 174 Fundamentals of Programming and Problem Solving (3)

#### Discipline-oriented computational science courses (3 hours):

BIO/CSE/MBI 466 Bioinformatics Computing Skills (3)  
CPB 473 Chemical Process Design (3)  
ECE 325 Applied Electromagnetics (3)

ECE 425 Digital Signal Processing (3)  
 ECE 461 Network Performance Analysis (3)  
 MME 213 Computational Methods in Engineering (3)  
 MME 495 Introduction to Applied Nonlinear Dynamics (3)  
 PHY 286 Introduction to Computational Physics (3)

**Electives (3 hours - select one):**

CSE 443 High Performance Computing (3)  
 MTH 245 Differential Equations for Engineers (3)  
 MTH 347 Differential Equations (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. See <http://cse.miami.edu>.

## Computer Engineering

(20-22 semester hours)

For information, contact the Department of Electrical and Computer Engineering, 260 Garland Hall (513-529-0740).

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 GPA 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  
 MTH 347 Differential Equations (3)  
 PHY 181,182 The Physical World (4, 4) (MPF IVB)  
 PHY 183,184 Physics Laboratory (1, 1) (MPF IVB, LAB)

**All of these (15 hours)**

ECE 205 Electric Circuit Analysis I (4)  
 ECE 287 Digital Systems Design (4)  
 ECE 289 Computer Organization (3) or  
 CSE 278 Computer Architecture (3)  
 ECE 387 Embedded Systems Design (4)

**Elective Courses (6 hours)**

Any two of these:

CSE 381 Operating Systems (3)  
 ECE/MME 303 Computer-Aided Experimentation (3)  
 ECE 304 Electronics (3)  
 ECE 306 Signals and Systems (3)  
 ECE 345 Applied Probability and Statistics for Engineers (3)  
 ECE 414 Introduction to VLSI and System Design (3)  
 ECE 425 Digital Signal Processing (3)  
 ECE 426 Biomedical Signal Analysis (3)  
 ECE/MME 436 Control of Dynamic Systems (3)  
 ECE 453 Communication Systems (3)  
 ECE 461 Network Modeling and Performance Analysis (3)

## 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 interest.

According to University guidelines, all minor courses must be taken for a letter grade and you must earn an overall 2.00 GPA 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) (MPT)  
 CSE 278 Computer Architecture (3) or  
 ECE 289 Computer Organization (3)

**Electives (minimum 9 hours):**

Select nine additional hours of coursework from the following list of CSE courses. At most three of these nine hours may be from courses which do not have computer programming as a prerequisite (those marked with \*).

CSE 201 Introduction to Software Engineering (3)  
 CSE 211 Software Construction (3)  
 CSE 212 Software Engineering for Human Computer Interaction (3)  
 CSE 241 Computational Modeling and Simulation (3)\*  
 CSE 251 Introduction to Game Programming (3)\*  
 CSE 252 Web Application Programming (3)  
 CSE 262 Technology, Ethics, and Global Society (3)\*  
 CSE 273 Optimization Modeling (3)\*  
 CSE 274 Data Abstraction and Data Structures (3)  
 CSE 278 Computer Architecture (3) or  
 ECE 289 Computer Organization (3)  
 CSE 283 Data Communications and Networks (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 381 Operating Systems (3)  
 CSE 383 Client Server Systems (3)  
 CSE 385 Database Systems (3)  
 CSE 386 Introduction to Computer Graphics (3)  
 CSE 443 High Performance Computing & Parallel Programming (3)  
 CSE 451 Web Services and Service Oriented Architectures (3)  
 CSE 464 Algorithms (3)  
 CSE 465 Comparative Programming Languages (3)  
 CSE 466 Bioinformatics Computing Skills (3)  
 CSE 467 Computer and Network Security (3)  
 CSE 471 Simulation (3)  
 CSE 473 Automata, Formal Languages, and Computability (3)  
 CSE 474 Compiler Design (3)  
 CSE 477 Independent Studies (0-5)  
 CSE 483 Analysis of Forecasting Systems (3)  
 CSE 485 Advanced Database Systems (3)  
 CSE 486 Introduction to Artificial Intelligence (3)  
 CSE 487 Game Design and Implementation (3)  
 CSE 491 Undergraduate Research (1-4)

## Electrical Engineering

(20-21 semester hours)

For information, contact the Department of Electrical and Computer Engineering, 260 Garland Hall (513-529-0740).

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 GPA 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 hrs)**

MTH 245 Differential Equations for Engineers (3) or  
 MTH 347 Differential Equations (3)  
 PHY 181,182 The Physical World (4, 4) (MPF IVB)  
 PHY 183,184 Physics Laboratory (1, 1) (MPF IVB LAB)

### Required courses (11 hrs)

ECE 205 Electric Circuit Analysis I (4)  
ECE 287 Digital Systems Design (4)  
ECE/MME 303 Computer-Aided Experimentation (3)

### Elective courses (9-10 hrs)

Select three from:

ECE 289 Computer Organization (3)  
ECE 291 Energy Systems Engineering (3)  
ECE 304 Electronics (3)  
ECE 306 Signals and Systems (3)  
ECE 345 Applied Probability and Statistics for Engineers (3)  
ECE 387 Embedded Systems Design (4)  
ECE 414 Introduction to VLSI Design (3)  
ECE 425 Digital Signal Processing (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 461 Network Modeling and Performance Analysis (3)  
ECE 493 Power Electronics (3)  
ECE 495 Electric Machinery and Drives (3)

## Manufacturing Engineering

(19 semester hours)

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Garland Hall (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.

A minimum cumulative GPA 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)  
CEC 101 Computing, Engineering, and Society (1)  
MME 102 Introduction to Mechanical and Manufacturing Engineering (3), or equivalent  
MTH 151 Calculus I (5)  
MTH 251 Calculus II (4)  
PHY 181 The Physical World (4)  
STA 301 Applied Statistics (3) or equivalent.

#### All of these (19 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)  
MME 335 Design of Experiments for Quality Control (1)

## Mechanical Engineering

(18 semester hours)

For information, contact the Department of Mechanical and Manufacturing Engineering, 56 Garland Hall (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 GPA 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:

CEC 101 Computing, Engineering, and Society (1)  
MME 102 Introduction to Mechanical and Manufacturing Engineering (3) or equivalent  
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/CPB 313 Fluid Mechanics (3)  
MME/CPB 314 Engineering Thermodynamics (3)

## Paper Engineering

(21 semester hours)

For information, contact the Department of Chemical, Paper and Biomedical 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 GPA 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 (18 hours):

CEC 101 Computing, Engineering, and Society (1)  
CPB 102 Introduction to Chemical and Bioengineering (3) or equivalent  
ECO 201 Principles of Microeconomics (3) (MPF IIC)  
MTH 251 Calculus II (4)  
PHY 181 The Physical World (4) (MPF IVB)  
STA 301 Applied Statistics (3)

#### Required Courses (21 hours):

CPB 201 Principles of Paper Science and Engineering (3)  
CPB 202 Pulp and Paper Physics (3)  
CPB 219 Statics and Mechanics of Materials (4) **or**  
MME 211 Static Modeling of Mechanical Systems (3)  
CPB/MME 313 Fluid Mechanics (3)  
CPB/MME 341 Engineering Economics (3)  
CPB 404 Papermaking (3)  
CPB 471, 472 Engineering Design I & II (2, 2)

#### Strongly Recommended:

CPB 320 Professional Practice (0)

## Certificates

### Leadership Certificate

(minimum 12 semester hours)

For more information, contact the Lockheed Martin Leadership Institute: mosskp@MiamiOH.edu or (513-529-0342). Website: <http://MiamiOH.edu/lockheed-martin>.

The Leadership Certificate is a rigorous and cumulative three-year leadership development program for selected cohort students with a major in the College of Engineering and Computing. Students focus on personal leadership, people leadership, and strategic leadership. During this program,

students are exposed to seasoned leaders from business and industry and create their own personal development plans. The program is an intensely personal and rich experience that prepares students to compete, succeed, and lead within their professions, their communities, and the world. Admission to the program is selective based on student applications and limited to students with a major in the College of Engineering and Computing. This certificate can only be earned in addition to a bachelor's degree at Miami University in the College of Engineering and Computing.

**Program requirements:**

CEC 291 Personal Leadership I (2)  
 CEC 292 Personal Leadership II (2)  
 CEC 391 People Leadership I (2)  
 CEC 392 People Leadership II (2)  
 CEC 491 Strategic Leadership I (2)  
 CEC 492 Strategic Leadership II (2)

**Additional Requirement:**

Students must be actively pursuing a bachelor's degree at Miami University in the College of Engineering and Computing to enroll in this certificate program.

Special Note: A student that cannot participate with their cohort in one of the courses above (other than CEC 291) for reasons such as a coop experience or study abroad, should consult with the Executive Director of the Lockheed Martin Leadership Institute for an acceptable substitution, which will require the approval of the Associate Dean of the College of Engineering and Computing.

## Paper Science and Engineering

(13 semester hours)

For more information, contact the Department of Chemical, Paper and Biomedical Engineering, 64 Engineering Building (513-529-0760).

The certificate program provides an understanding of the basic as well as applied principles, concepts and methodologies of direct consequence to operations in the paper industry. This certificate program is designed to be an addition to a bachelor's degree. Therefore, students can only enroll in this certificate program if they are pursuing a bachelor's degree at Miami University. The program includes additional requirements that connect to the paper science profession via a work experience and a portfolio of related experiences.

**Program Requirements:**

**Required:**

CPB 201 Principles of Paper Science and Engineering (3)  
 CPB 202 Pulp and Paper Physics (3)  
 CPB 301 Pulp and Paper Chemistry (3)  
 CPB 404 Papermaking (3)  
 CPB 320 Professional Practice (0)  
 CPB 490 Special Topics in Paper and Chemical Engineering (1)

**Additional Requirements:**

1. Students are required to maintain a portfolio documenting their involvement in professional societies (TAPPI, for example), workshops, seminars, and internships/coop activities. The portfolio must also contain a reflective essay summarizing their educational and professional development.
2. All required prerequisite courses must also be taken.
3. Students must be actively pursuing a bachelor's degree at Miami University to enroll in this certificate program.
4. No courses may be taken on a credit/no credit basis.

# Farmer School of Business

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## Student Services Office

1022 Farmer School of Business

Phone: 513-529-1712

[www.fsb.MiamiOH.edu](http://www.fsb.MiamiOH.edu)

## Degrees and Majors Offered

### Bachelor of Science in Business in:

- Accountancy
- Business-Economics
- Finance
- Information Systems
- Interdisciplinary Business Management
- Management and Leadership
- Marketing
- Supply Chain and Operations Management

### Co-major in:

- Analytics

### Minors in:

- Arts Management
- Business Analytics
- Business Legal Studies
- Economics
- Entrepreneurship
- Finance
- General Business
- Information Systems
- International Business
- Management
- Management and Leadership
- Management of Information Technologies
- Marketing
- Risk Management and Insurance
- Supply Chain Management

### Certificate Programs in:

- China Business Certificate

## 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 bachelor's and master's degree programs. An undergraduate certificate program is also available. Master's degree programs are described in the Graduate Programs of Study section. Certificate and associate's degree programs are described in the Hamilton and Middletown section.

Bachelor's degree majors are offered in eight areas: accountancy, business-economics, finance, interdisciplinary business management, management and leadership, information

systems, marketing, and supply chain and operations management, along with a co-major in analytics. 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, economics, entrepreneurship, finance, general business, information systems, international business, management, management and leadership, 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 sixty leading business executives, many of whom are alumni of the School. The council meets with the dean, faculty, and students twice a year to provide counsel 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: Farmer Board of Visitors, Center for Business Excellence Advisory Board, I. S. Advisory Council, Finance Advisory Board, Page Center Advisory Council, and the Department of Accountancy Advisory Group.

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 participating in the University Honors Program will have opportunity to apply to the Farmer School of Business (divisional) honors program in the spring of the first year (with entry decisions occurring that same semester).

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.MiamiOH.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; Association for Information Systems (AIS); Buck Rodgers Business Leadership Program; Business Student Advisory Council (BSAC); China-American Business Organization (CABO); Economics Club; Global Business Brigades; Information Systems Audit and Control Association (ISACA); Farmer School Ambassador Program; International Student Advisory Council; Miami Business Consulting; 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 Association; Net Impact; Phi Chi Theta; Pi Sigma Epsilon, a professional fraternity in marketing, sales management, and selling; Society for Human Resources Management; Supply Chain Management Association, Toastmasters, and Women in Business.

## Advisors

Upperclass advisors for all business majors are assigned by the department of major, and the assignment is posted. Each program also has a chief advisor who coordinates the advising procedures within a department and represents the department on the committee that hears student petitions, the Divisional Committee of Advisors. Divisional advisors are also available to help business students with special problems. Advising assignments and information is available at the following website: <http://www.fsb.MiamiOH.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

### Admission to the Farmer School of Business

Admission to the Farmer School of Business generally takes place upon entry as a first year student. The academic credentials required will vary during each admission cycle and are determined by the Office of Admission. The review process is holistic and comprehensive and considers many variables to establish the context of a student's achievements and demonstrated potential to be successful in the rigorous curriculum. Additional details are available on the Farmer School website: <http://www.fsb.MiamiOH.edu/offices/academic-advising/high school>.

## Transfer Admission

A limited number of seats are available each semester for students who were not previously offered direct admission or who may be transferring from other institutions. Entry in any semester is restricted to the number of seats available and will be allocated according to the following processes:

**Current Miami University students:** To be admitted into the Farmer School of Business, a student must have earned at least 30 graded credit hours at Miami University and hold a GPA of 3.30 or higher in a set of Miami Plan Foundation and business courses taken at Miami University; this set must include MTH 151 and ECO 201 (via AP, post-secondary or university courses). For more information, please contact the Student Services Office at (513)529-1712.

**Transfer students from another college or university:** To be admitted into the Farmer School of Business, a student must have earned at least 30 graded credit hours. Students must also have an overall GPA of 3.30 or higher in graded credit hours earned, which must include MTH 151 and ECO 201 (via AP, post-secondary, or university courses). Questions can be directed to the FSB Student Services Office at (513)529-1712.

**Relocating students:** Students who initially enroll on Miami's Hamilton or Middletown campuses may gain entry into the Farmer School of Business under the same processes described above for intra-university transfer.

## 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 3.50 grade point average for the preceding semester or is a senior who earned a 3.00 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, management and leadership, marketing, operations and supply chain management, 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 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 advisor or the advising office in 1022 FSB or at the following website: <http://www.fsb.MiamiOH.edu/offices/academic-advising/forms>.

## Grade Point Average

A minimum 2.00 cumulative grade point average in business courses is required for graduation.

## Mathematics Requirement

All business students must complete MTH 151 Calculus I or equivalent. 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 (ISA 205, 291, 321, 331, 333, 365 or STA 200-499) toward meeting this requirement. This means that business majors 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 ISA 205, ECO 201 and 202, but do not include COM 135 or MTH 151.

## Statistics Requirement

You are expected to take ISA 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 Information Systems and Analytics department before enrolling in ISA 205.

## Technology Requirement

Students are expected to take ISA 235 Information Technology, and the Intelligent Enterprise. The prerequisites for ISA 235 are CSE 148 and BUS 101. Students who plan to complete courses in computer science and software engineering should consult with the Information Systems and Analytics department before enrolling in ISA 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 ISA 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 required junior or senior level accountancy courses at Miami University with at least a 2.00 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 3.20 or higher GPA on the combination of Miami Plan and business core course work is eligible to apply for a second major in business. Some majors may require a higher GPA due to enrollment limits. In all cases, 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 GPA in all business courses attempted
- Complete at least 64 semester hours of course work in non-business departments

## Common Core of Business Courses (51-52 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 (3)  
 ISA 205 Business Statistics (4)  
 ISA 235 Information Technology and the Intelligent Enterprise (3)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC)  
 ECO 202 Principles of Macroeconomics (3) (MPF IIC)  
 FIN 301 Introduction to Business Finance (3)  
 MGT 291 Introduction to Management and Leadership (3)  
 MGT 302 Introduction to Operations and Supply Chain Management (3)  
 MKT 291 Principles of Marketing (3)  
 MTH 151 Calculus I (5) (MPF V), or MTH 249 (5) (MPF V) or 251 Calculus II (4-5)  
 FSB Senior Capstone Experience (3)  
 Diversity requirement (3)



**Suggested Course Pattern:**

Typically, coursework at the 100 and 200 level will be scheduled during the first and second years, 300 level courses will be taken in the second and third years and 400 level courses will be taken in the senior year. You will work with your advisors to schedule your coursework appropriate with your preparation and academic goals.

**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 professional 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.

**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 prepare students to excel as high-integrity business leaders and accounting professionals and to enable faculty members to be outstanding instructors whose scholarship informs their teaching and who positively impact the professional and Miami community. 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.

**Combined Degree Option**

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 bachelor's degree. This requires additional education beyond the requirements for a bachelor's degree from Miami.

High achieving students have the option of pursuing a combined degree program in which you can earn both your bachelor's and master's degrees in accountancy within four years. 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.

To be eligible to apply for the combined degree program, students must have completed at least 64 credit hours with a minimum GPA of 3.40 and have earned a B or better in ACC 221, ACC 222, and ACC 321 (ACC 321 must have been taken at Miami).

Please contact the department's Academic Program Coordinator to learn more about this option.

**Special Curriculum Requirements**

Students must earn at least a cumulative 2.00 GPA 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 256 Accountancy Career Exploration and Planning (1)  
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)  
ACC 422 Financial Accounting Research (3)\*  
ACC 453 Financial Statement Auditing (3)\*

**Professional electives:**

At least six semester hours, all above the 100-level, including at least one course from a business department other than accountancy.

\* Prerequisite for Master of Accountancy program.

**Analytics Co Major**

For information, contact the Department of Statistics, 311 UPH (513-529-7828) or the Department of Information Systems and Analytic, 3095 FSB (513-529-4826).

Analytics describes the extensive use of data to guide evidence-based decision-making. This field has emerged during a time when massively large data sets are being collected throughout society. Analytics lives at the junction between numerous traditional disciplines including information systems and statistics. This program will provide a framework for thinking about the collection and use of so-called "big data" and students will develop skills for handling structured and unstructured data sets and for developing models to predict behavior in data-rich environments.

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:**

**Complete a major in one of the divisions of the university.**

**CORE coursework to be satisfied by all co-majors (18-19 hours):**

**Data Description and Summarization (choose one course):**

ISA 205 Business Statistics (4) or  
STA 261 Statistics (4) or  
STA 301 Applied Statistics (3) or  
STA 368 Introduction to Statistics (4)

**Data Management - Structured (choose one sequence):**

CSE 148 Fundamentals of Programming and Problem Solving (3) and  
ISA 235 Information Technology and the Intelligent Enterprise (3) and  
ISA 245 Database Systems and Data Warehousing (3)

**OR**

CSE 174 Fundamentals of Programming and Problem Solving (3) and  
CSE 271 Object-Oriented Programming (3) and  
CSE 274 Data Abstraction and Data Structures (3) and  
CSE 385 Database Systems (3)

**Regression Models (choose one course):**

ISA 291 Applied Regression Analysis in Business (3) or  
STA 363 Introduction to Statistical Modeling (3) or  
STA 463 Regression Analysis (4)

**Visualizing Data and Digital Dashboards (required):**

STA/IMS/JRN 404 Advanced Data Visualization (3)

In addition to the common core, each co-major is required to complete a particular track of study. These tracks reflect a focus on a particular area of application of analytics or advanced methods.

### Track 1: Business Analytics

Note: For IS majors, at least 18 hours beyond the business core must be courses not counted toward the IS major.

**Required (6 hours) - Note that ISA 291 must be taken as the core option for this track.**

ISA 414 Managing Big Data (3)  
ISA 491 Introduction to Data Mining in Business (3)

**Take two of these (6 hours):**

ISA 404 Business Intelligence and Knowledge Management (3)  
ISA 444 Business Forecasting (3)  
STA 402 Statistical Programming (3)

**Take one of these (3 hours):**

ISA 321 Quantitative Analysis of Business Problems (3)  
ISA/STA 333 Nonparametric Statistics (3)  
ISA/STA 365 Statistical Quality Control (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
ISA/STA 432 Survey Sampling in Business (3)  
ISA 444 Business Forecasting (3)  
ISA 480 Topics in Decision Sciences (1-3; maximum 3)  
STA 402 Statistical Programming (3)  
STA 427 Introduction to Bayesian Statistics (3)

### Track 2: Predictive Analytics

**Required (15 hours):**

ISA 321 Quantitative Analysis of Business Problems (3) or  
MTH 432 Optimization (3) or  
CSE 372 Stochastic Modeling (3)  
STA 402 Statistical Programming (3)  
STA 427 Introduction to Bayesian Statistics (3)  
STA 467 Statistical Learning (3)  
ISA 414 Managing Big Data (3)

Note: Other tracks are expected such as bioinformatics, health care, and geographical analytics.

## 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

For details on honors in economics please see the departmental website.

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.

### GPA requirement:

You must achieve at least a 2.00 GPA 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 251 and all Capstone courses cannot be used as electives. You must achieve at least a 2.00 GPA 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  
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 251 and all Capstone Experience courses).

## Information Systems Bachelor of Science in Business

For information, contact the Department of Information Systems and Analytics, 3095 FSB (513-529-4826).

The information systems 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 IS 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:

ISA 235 Information Technology and the Intelligent Enterprise (3)  
ISA 245 Database Systems and Data Warehousing (3)  
ISA 281 Building Web-Based Business Applications I (3)  
ISA 301 Data Communications in Business (3)  
ISA 387 Designing Business Systems (3)  
ISA 403 Building Web-Based Business Applications II (3)  
ISA 406 IT Project Management (3)

#### Choose ONE of the following:

ISA 404 Business Intelligence and Knowledge Management (3)  
ISA 414 Managing Big Data (3)  
ISA 495 Managing the Intelligent Enterprise (3)

Choose ONE of the following: **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)  
ISA 303 Enterprise Systems (3)  
ISA 305 Information Risk Management, Security, and Audit (3)  
ISA 385 Applications of Electronic Commerce Technology (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
ISA 414 Managing Big Data (3)  
ISA 481 Topics in Information Systems (3-4)  
ISA 495 Managing the Intelligent Enterprise (3)

## Interdisciplinary Business Management Bachelor of Science in Business

For information on this major, contact the Student Services Office 1022 FSB (513-529-1712).

Students interested in Interdisciplinary Business Management major will meet with an advisor to discuss the program and officially declare the major.

### Program Requirements

#### All of these:

BLS 442 Commercial Law (3)  
MGT 303 Human Resource Management (3)  
MKT 325 Consumer Behavior (3)

#### 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 Studies (3)  
ECO 325 Economic Analysis of Law (3)  
ECO 385 Government and Business (3)  
MGT 402 Employment Law (3)  
POL/WGS 347 Women and the Law (3) **or**  
POL 352 Constitutional Law and Politics (4) **or**  
POL 353 Constitutional Rights and Liberties (4) **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 251 Entrepreneurial Value Creation and Capture (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 Studies (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 in Focus (3) (only offered abroad)  
ECO 344 International Economic Relations (3)

#### Minimum 8 Hours from:

BLS 464 International Business Law (3)  
BUS 420 International Studies Programs (1-3; maximum 6)  
FIN 417 International Business Finance (3)  
MGT 304 Cross-Cultural Management (3)  
MKT 425 Global Marketing (3)

## 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 415 Leadership and Learning (3)  
MGT 474 Human Capital Metrics (3)  
MGT 495 Strategic Management (3)

#### Required electives. Select three of these:

MGT 402 Employment Law (3)  
MGT 404 Compensation Management (3)  
MGT 405 Labor Relations and Conflict Management (3)  
MGT 414 Motivation and Work (3)  
MGT 416 Organizational Change Management (3)  
MGT 463 Employee Benefits (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 (3)  
MKT 325 Consumer Behavior (3)  
MKT 335 Marketing Research (3)  
MKT 405 Creating Customer Value Through Marketing (3)

#### Choose ONE of the following:

MKT 412 Sustainable Marketing Management (3)  
MKT 415 Marketing to Organizations (3)  
MKT/IMS 419 Digital Branding (3)  
MKT 425 Global Marketing (3)  
MKT 431 Logistics Management (3)  
MKT 435 Branding and Integrated Marketing Communications (3)

#### 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:

ISA 303 Enterprise Systems (3)  
MGT 432 Global Strategic Sourcing (3)  
MGT 451 Operations Planning and Scheduling (3)  
MGT 453 Productivity Improvement (3)  
MKT 415 Marketing to Organizations (3) **or**  
MKT 412 Sustainable Marketing Management (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 domain specific program designed to complement your major, expand your skill set and potentially increase your career opportunities. More information about minors is in the Other Requirements chapter.

Admission to most Farmer School of Business minors is limited and the respective departments are responsible for managing their enrollments. **Students may enroll in a maximum of two Farmer School of Business minors.** Some minors are available to students on a first-come, first-served basis while others have 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. Completion of a FSB minor may require taking coursework during summer and winter terms and/or online.

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, general business, management, and risk management and insurance.

Several minors are available to both business majors and non-business majors: arts management, business analytics, business legal studies, economics, entrepreneurship, information systems, international business, management and leadership, management of information technologies, marketing, and supply chain management.

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.

## 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 advisor in the appropriate department. Fine arts majors must plan courses with the assistance of their business advisor.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Core Requirements: Business and Creative Arts Majors (10 hours)

#### All of these:

CCA 182 Experiencing the Arts (1, repeatable)  
CCA 201 Introduction to Arts Management (3)  
CCA 340 Arts Management Internship (3)  
CCA 410 Advanced Topics in Arts Management (3)

### Program Requirements: Business Majors (9 hours)

#### Select six (6) credit hours from the following:

ARC 188 Ideas in Architecture (3) \*  
ARC 426 Architecture and Society (3) \*\*  
ART 181 Concepts in Art (3) \*  
ART 185 India and Southeast Asia (3) \*  
ART 187 History of Western Art: Prehistoric to Gothic (3) \*  
ART 188 History of Western Art: Renaissance to Modern (3) \*  
ART 286 History of Asian Art, China, Korea, and Japan (3) \*  
ART 455 20th Century Design and Culture (3)  
MUS 135 Understanding Jazz, Its History and Context (3) \*  
MUS 185 The 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 (1) \*  
THE 191 Theatre Appreciation (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 (3)  
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)  
MUS 100A Collegiate Chorale (0 or 1)  
MUS 100B Men's Glee Club (0 or 1)

MUS 100C Symphony Orchestra (0 or 1)  
 MUS 100D Chorals (0 or 1)  
 MUS 100E Marching Band (0 or 1)  
 MUS 100F Symphonic Band (0 or 1)  
 MUS 100G Wind Ensemble (0 or 1)  
 MUS 100H Chamber Music Brass (0 or 1)  
 MUS 100I Chamber Music Strings (0 or 1)  
 MUS 100K Jazz Ensemble (0 or 1)  
 MUS 100M Percussion Ensemble (0 or 1)  
 MUS 100N Steel Band (0 or 1)  
 MUS 100P Chamber Orchestra (0 or 1)  
 MUS 100Q Chamber Singers (0 or 1)  
 MUS 100R Chamber Music Winds (0 or 1)  
 MUS 100S Cello Choir (0 or 1)  
 MUS 100T Trumpet Ensemble (0 or 1)  
 MUS 100U Basketball/Hockey Band (0 or 1)  
 MUS 100X Marching Band Percussion Ensemble (0 or 1)  
 MUS 320 Opera Production (2)  
 THE 123 Acting for the Non-Major: Text and Performance (3) \*  
 THE 200 Production and Performance Practicum (1-8)

### Program Requirements: Fine Arts Majors (9 hours)

#### Complete one of the following series of courses:

##### Option 1:

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 (3) \*  
 MKT 291 Principles of Marketing (3)

##### Option 2:

*SBI1 Business Institute:*

BUS 301 Macro Concepts in Contemporary Business (3)  
 BUS 302 Micro Concepts in Contemporary Business (3)  
 BUS 303 Business Process Integration (3)

##### Options 3:

*ESP1 Entrepreneurship in Different Contexts \*\*\**

ESP 311 Entrepreneurial Marketing (3)  
 ESP 366 Imagination and Entrepreneurship (3)  
 ESP 469 Entrepreneurship in Complex Organizations (3)

\* Global Miami Plan Foundation course

\*\* Global Miami Plan Capstone course

\*\*\*Arts management minors who wish to complete the ESP 1 thematic sequence coursework are asked to declare the thematic sequence through the Page Center for Entrepreneurship.

## Business Analytics

(22 semester hours)

For information, contact the Department of Information Systems and Analytics, 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 and business intelligence techniques.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Course Requirements for the Business Analytics Minor

#### Analytics Core Courses required for all tracks:

ISA 205 Business Statistics (4)  
 ISA 235 Information Technology and the Intelligent Enterprise (3)  
 ISA 245 Database Systems and Data Warehousing (3)  
 ISA 291 Applied Regression Analysis in Business (3)

#### Complete the requirements for one of the following tracks

NOTE: All tracks require at least one of the following advanced core classes:

ISA 321 Quantitative Analysis of Business Problems (3)  
 ISA 404 Business Intelligence and Knowledge Management (3)  
 ISA 491 Introduction to Data Mining in Business (3)

#### Data Mining Track:

##### Required:

ISA 321 Quantitative Analysis of Business Problems (3)  
 ISA 491 Introduction to Data Mining in Business (3)

##### In addition, choose ONE:

ISA 404 Business Intelligence and Knowledge Management (3)  
 ISA 414 Managing Big Data (3)  
 STA 402 Statistical Programming (3)

#### Multidisciplinary Track:

##### Required:

ISA 404 Business Intelligence and Knowledge Management (3)

##### In addition, choose ONE:

*(the course chosen from this list must be different from those taken to fulfill any of the requirements above)*

ISA 321 Quantitative Analysis of Business Problems (3)  
 ISA 365 Statistical Quality Control (3)  
 ISA 414 Managing Big Data (3)  
 ISA 444 Business Forecasting (3)  
 ISA 480 Topics in Decision Sciences (3)  
 ISA 491 Introduction to Data Mining in Business (3)  
 STA 402 Statistical Programming (3)

##### In addition, choose ONE:

ISA 321 Quantitative Analysis of Business Problems (3)  
 ISA 365 Statistical Quality Control (3)  
 ISA 414 Managing Big Data (3)  
 ISA 444 Business Forecasting (3)  
 ISA 480 Topics in Decision Sciences (3)  
 ISA 491 Introduction to Data Mining in Business (3)  
 STA 402 Statistical Programming (3)

#### Quantitative Methods Track:

##### Required:

ISA 321 Quantitative Analysis of Business Problems (3)

##### In addition, choose TWO:

ISA 333 Nonparametric Statistics (3)  
 ISA 365 Statistical Quality Control (3)  
 ISA 432 Survey Sampling in Business (3)  
 ISA 444 Business Forecasting (3)  
 ISA 480 Topics in Decision Sciences (3)  
 ISA 491 Introduction to Data Mining in Business (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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### 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)

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)\*\*  
 ECO 325 Economic Analysis of the Law (3)  
 ECO 385 Government and Business (3)  
 MGT 402 Legal Environment of Personnel and Labor Relations (3)\*

\*\* Miami Plan Capstone Experience course.

#### Remaining hours from these:

ECO 331 Public Sector Economics (3)  
 ECO 406 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 (3)  
 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)

## 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 GPA. Either ECO 315 or ECO 317 must be taken at Miami.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

#### Program Requirements

##### All of these (9 semester hours):

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 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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

#### Program Requirements:

##### All of these:

ESP 251 Entrepreneurial Value Creation and Capture (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 101 Entrepreneurship Foundations (1)  
 ESP 102 Startup Bootcamp: Inception to Prototype (1)  
 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 Studies (up to 3 hours)  
 ESP 481 Technology, Products, and Ventures (3)  
 ESP 490 Special Topics in Entrepreneurship (up to 3 hours)

\* 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 GPA is required for all courses in the minor.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

#### 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: ISA 205.

## General Business

(21 semester hours)

For information contact the undergraduate advising office, 1022 FSB (513-529-1712).

The minor in General Business, which is open to nonbusiness majors only, 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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program requirements:

#### Take all of the following:

ACC 221 Introduction to Financial Accounting (3)  
ECO 201 Principles of Microeconomics (3)  
MGT 111 Introduction to Business (3) **or**  
BUS 101 Foundations of Business Decision Making (3)  
STA 261 Statistics (4) **or**  
ISA 205 Business Statistics (4)

#### Take all of the following:

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 (2)  
BUS 354 Business in Context: The Role and Importance of Financial Capital (2)

## Information Systems

(18 semester hours)

For information, contact the Department of Management Information Systems and Analytics, 3095 FSB (513-529-4826).

The information systems 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 IS 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 GPA 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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program Requirements

#### Required courses: (6 hours)

ISA 235 Information Technology and the Intelligent Enterprise (3)  
ISA 245 Database Systems and Data Warehousing (3)

#### One of the following: (3 hours)

ISA 303 Enterprise Systems (3)  
ISA 404 Business Intelligence and Knowledge Management (3)

#### Two additional ISA courses from the following:

(The courses chosen from this list must be different from those taken to fulfill the requirements above.) (6 hours)

ISA 281 Building Web-Based Business Applications I (3)  
ISA 301 Data Communications in Business (3)  
ISA 303 Enterprise Systems (3)  
ISA 305 Information Technology, Risk Management, Security and Audit (3)  
ISA 385 Applications of Electronic Commerce Technology (3)  
ISA 387 Designing Business Systems (3)  
ISA 403 Building Web-Based Business Applications II (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
ISA 406 IT Project Management (3)  
ISA 414 Managing Big Data (3)  
ISA 481 Topics in Information Systems (3)  
ISA 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)  
ENG 313 Technical Writing (3)  
GEO 441 Geographic Information Systems (3)  
IMS 440 Interactive Media Studies Practicum (4)  
ISA 281 Building Web-Based Business Applications I (3)  
ISA 301 Data Communications in Business (3)  
ISA 303 Enterprise Systems (3)  
ISA 305 Information Technology, Risk Management, Security and Audit (3)  
ISA 385 Applications of Electronic Commerce Technology (3)  
ISA 387 Designing Business Systems (3)  
ISA 403 Building Web-Based Business Applications II (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
ISA 406 IT Project Management (3)  
ISA 414 Managing Big Data (3)  
ISA 481 Topics in Information Systems (3-4)  
ISA 495 Managing the Intelligent Enterprise (3)  
MGT 416 Organizational Change Management (3)  
MGT 474 Human Capital Metrics (3)  
MKT/IMS 419 Digital Branding (3)

## International Business

(21 semester hours)

For information, contact the Student Services Office, 1022 FSB (513-529-1712).

This minor offers a concentration of courses providing a foundation for a career in the global business environment. 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 for business majors. However, courses that have been identified in the list of "Approved General Electives" for the international business minor may either fully or partially satisfy a thematic sequence for business students. The minor would fulfill the thematic sequence requirement for non-business majors. A minimum of 21 hours, with at least a 2.00 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. Non-business courses offered on the Luxembourg campus (MUDEC) and in approved study abroad programs may be used as electives with the approval of the FSB International Business Minor advisor.

### Language Preparation

This minor requires foreign language skills through the 202 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. American Sign Language courses offered through the College of Arts and Science may not be used to

fulfill this requirement. American Sign Language courses offered through the College of Arts and Science may not be used to fulfill this requirement.

### 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 programs for two-, three-, or six-week terms, and semester-long exchanges with selected FSB partner institutions. 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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program Requirements

#### Required:

BUS 371 International Business (3) **or**  
 BUS 373 International Business in Focus (3)  
 Foreign language through 202 level (3)  
 Approved general electives (6)

#### Choose THREE of the following:

BLS 464 International Business Law (3)  
 ECO 344 International Economic Relations (3)  
 ECO 441 International Trade (3)  
 ECO 442 International Monetary Relations (3)  
 FIN 417 International Business Finance (3)  
 MGT 304 Cross Cultural Management (3)  
 MKT 425 Global Marketing (3)  
 IMS/ENG 416 Writing for Global Audiences (3)  
 And/or any business courses taken abroad and approved in advance by the FSB International Business Minor Advisor.

## Management

(18 or 19 semester hours)

For information, contact the Department of Management, 3056 FSB (513-529-4215).

This minor is available to any non-business 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 College of Education, Health, and Society, and the College of Engineering and Computing. 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 are required to take MGT 291 and MGT 302 in the summer or winter terms.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program requirements:

#### All of these:

ISA 205 Business Statistics (4) **or**  
 PSY 293 Research Design and Analyses in Psychology I (4) **or**  
 STA 261 Statistics (4) **or**  
 STA 301 Applied Statistics (3) **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)

#### Choose TWO of the following:

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 Global Strategic Sourcing (3)  
 MGT 451 Operations Planning and Scheduling (3)  
 MGT 453 Quality Management Systems (3)  
 MGT 463 Employee Benefits (3)

## Management and Leadership

(18 semester hours)

For information, contact the Department of Management, 3056 FSB (513-529-4215).

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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program Requirements

#### All of these:

MGT 111 Introduction to Business (3) **or**  
 BUS 101 Foundations of Business Decision Making (3)  
 MGT 291 Introduction to Management and Leadership (3)  
 MGT 303 Human Resources Management (3)

#### Choose THREE of the following:

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 416 Organizational Change Management (3)  
 MGT 463 Employment Benefits (3)  
 MGT 474 Human Capital Metrics (3)

## Management of Information Technologies

(18 semester hours)

For information, contact the Department of Information Systems and Analytics, 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 College of Engineering and Computing) 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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program Requirements:

#### Non-Business Majors (18 Semester Hours)

*All of these:*

ACC 222 Introduction to Managerial Accounting (3)  
ISA 235 Information Technology and the Intelligent Enterprise (3)  
MGT 302 Introduction to Operations and Supply Chain Management (3)

#### Management elective. One of these:

ISA 303 Enterprise Systems (23)  
ISA 404 Business Intelligence and Knowledge Management (for CSE majors only) (3)  
MGT 416 Organizational Change Management (3)  
MKT 431 Logistics Management (3)

#### Programming elective. One of these:

CSE 271 Object-Oriented Programming (3)  
ISA 281 Building Web-Based Business Applications I (3)

#### Project Management elective. One of these:

EGM/MGT 311 Project Management (3)  
ISA 406 IT Project Management (for CSE majors only) (3)

### Students not in the College of Engineering and Computing

#### 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 416 Organizational Change Management (3)  
MKT 431 Logistics Management (3)

#### Other business electives. One of these:

BLS 465 Ethics, Law, and Business (3)  
ESP 481 Technology, Products, and Ventures (3)  
ISA 365 Statistical Quality Control (3)  
ISA 495 Managing the Intelligent Enterprise (3)  
MGT 414 Motivation and Work (3)  
MGT 415 Leadership, Power, and Decision Making (3)  
MGT 453 Productivity Improvement (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:

ISA 303 Enterprise Systems (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
MGT 416 Organizational Change 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)  
EGM/MGT 311 Project Management (3)  
ESP 481 Technology, Products, and Ventures (3)  
ISA 365 Statistical Quality Control (3)  
ISA 495 Managing the Intelligent Enterprise (3)  
MGT 414 Motivation and Work (3)  
MGT 415 Leadership, Power, and Decision Making (3)  
MGT 453 Productivity Improvement (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 (4)  
ECE 287 Digital System Design (4)  
ECE 304 Electronics (3)

#### Management elective. One of these:

ISA 303 Enterprise Systems (3)  
ISA 404 Business Intelligence and Knowledge Management (3)  
MGT 416 Organizational Change 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)  
EGM/MGT 311 Project Management (3)  
ESP 481 Technology, Products, and Ventures (3)  
ISA 365 Statistical Quality Control (3)  
ISA 495 Managing the Intelligent Enterprise (3)  
MGT 414 Motivation and Work (3)  
MGT 415 Leadership, Power, and Decision Making (3)  
MGT 453 Productivity Improvement (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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program Requirements

#### Prerequisites

ISA 205 Business Statistics (4) **or**  
STA 261 (MPF V) or STA 368 (4)  
ECO 201 Principles of Microeconomics (3) (MPF IIC)  
MGT 111 Introduction to Business (3) (MPF IIC) (non-business majors only)

#### All of these:

MKT 291 Principles of Marketing (3)  
MKT 325 Consumer Behavior (3)  
MKT 405 Creating Consumer Value Through Marketing (3)

#### Choose ONE of the following:

MKT 412 Sustainable Marketing Management (3)  
MKT 415 Marketing to Organizations (3)  
MKT 425 Global Marketing (3)  
MKT 435 Branding and Integrated Marketing Communications (3)

## Risk Management and Insurance

### (18 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.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### 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 IS, leading to successful operation of the entire SCM process. You will be exposed to career opportunities in this field.

For details regarding admission to FSB minors and availability of coursework, please refer to the information at the beginning of this section (under Farmer School of Business "Minors").

### Program Requirements

#### Business foundation courses. All of these:

ISA 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 Global Strategic Sourcing (3)  
 MGT/MKT 498 Supply Chain Management (3)  
 MKT 291 Principles of Marketing (3)  
 MKT 431 Logistics Management (3)

#### Focus elective. One of these:

ISA 303 Enterprise Systems (3)  
 MGT 451 Operations Planning and Scheduling (3)  
 MGT 453 Productivity Improvement (3)  
 MKT 412 Sustainable Marketing Management (3)  
 MKT 415 Marketing to Organizations (3)

## Certificate

## 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 Asia. The program is designed for students who wish to pursue a career in business and who have a strong interest in China and Asia.

Students must contact the China Business Program Director 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

**All requirements must be approved in advance by the Director of the China Business Program.**

#### 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:***

CHI 1 Thematic Sequence  
 SDT 1 Self Designed Thematic Sequence  
 Asian/Asian American Studies Minor  
 Chinese Minor  
 East Asian Studies Minor  
 International Business Minor with approved electives related to China

#### Overseas Experience:

***Completion of any of the following:***

Semester of study abroad in China **or**  
 Internship in China (minimum 10 weeks) **or**

***Any two of the following:***

- FSB International Faculty-Led Program  
 - Tianjin Summer Intensive Chinese Language Program  
 - Completion of pre-approved\* business related internship in China or related to China (BUS 330 Professional Practice, 5 weeks minimum).

#### Business Coursework:

***Completion of a B.S. in Business and completion of two China Business Seminars:***

BUS 241 China Business Seminar I (2) (fall, second year)  
 BUS 341 China Business Seminar II (2) (spring, third or fourth year)

# College of Professional Studies and Applied Sciences

## Hamilton Campus

1601 University Blvd., OH 45011

Phone: 513-785-3000

TTY accessible: 513-785-3211

[www.regionals.MiamiOH.edu](http://www.regionals.MiamiOH.edu)

## Middletown Campus

4200 N. University Blvd., OH 45042

Phones: 513-727-3200, 1-866-426-4643

TTY accessible: 513-727-3308

[www.regionals.MiamiOH.edu](http://www.regionals.MiamiOH.edu)

## Voice of America Learning Center

7847 VOA Park Dr.

West Chester, OH 45069

Phone: 513-895-8862

[www.regionals.MiamiOH.edu/voalc](http://www.regionals.MiamiOH.edu/voalc)

## Greentree Health Science Academy

5858 Innovation Dr.

Middletown, OH 45005

Phone: 513-933-3960

[www.greentreehealthacademy.org](http://www.greentreehealthacademy.org)

## Degrees and Majors Offered

### Bachelor of Integrative Studies

#### Bachelor of Science in Applied Science in Engineering Technology with concentrations available in:

Electrical & Computer Engineering Technology

Electro-Mechanical

Mechanical Engineering Technology

#### Bachelor of Science in Civic and Regional Development

#### Bachelor of Science in Criminal Justice

#### Bachelor of Science in Forensic Science and Investigation:

Forensic Investigation

Forensic Science

#### Bachelor of Science in Information Technology in:

Health Information Technology

#### Bachelor of Science in Nursing

BSN 4-Year and RN-BSN completion

#### Minor in:

Criminal Justice

Forensic Investigation

#### Associate in Applied Science in:

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 Management Technology

Business Software Technology

Marketing Management Technology

Real Estate Technology

#### Associate of Technical Study

## General Information

Miami Regional locations in Hamilton, Middletown and West Chester are commuter campuses offering a Bachelor of Integrative Studies, a Bachelor of Science in Applied Science in Engineering Technology, a Bachelor of Science in Nursing, a Bachelor of Information Science in Health Information Technology, Bachelor of Science in Criminal Justice, Bachelor of Science in Civic and Regional Development, Bachelor of Science in Forensic Science and Investigation, associate's degrees, Geographic Information Science certificate, courses to begin a bachelor's degrees, selected graduate courses (for part-time master's degree programs in business, social work and education), and continuing education courses. Classes are offered during the day, evening, and on Saturday to accommodate part-time and full-time students.

The Hamilton and Middletown campuses offer student facilities and services. Hamilton enrolls about 4,000 students and Middletown enrolls about 2,000 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.

Opened in 2011, the Greentree Health Science Academy is located on the campus of the Atrium Medical Center near Interstate 75 in Middletown. Miami University has a nursing lab at this site and also offers general education courses there.

Students may take course work at Miami Hamilton, Miami Middletown, the Voice of America Learning Center and Greentree Health Science Academy to begin a bachelor's degree in most majors. Bachelor degrees can be completed in Nursing, Engineering Technology, Health Information Technology, Integrative Studies, Criminal Justice, Bachelor of Science in Civic and Regional Development or Bachelor of Science in Forensic Science and Investigation 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 a 2.00 cumulative grade point average, an acceptable conduct record, and after earning at least 16 hours of Miami University college-level course work (not including developmental 00\_classes, CLEP, AP, Dual enrollment and PSEOP credit). Regional campus students must complete the relocation form and contact the regional campus advising office. These requirements will be verified as of the start of the approved relocation term by the Regional Campuses Registrar and Director of Advising Office. Students wishing to relocate to Oxford with exceptions to these requirements must contact the Oxford campus divisional office in consultation with the student's regional campus advising office.

At the graduate level, area educators have the advantage of the courses and programs offered through Miami's College 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 Calendar of Events and Advising & Registration Sessions (SOAR) schedule for specific information.

## For More Information

Office of Admission and Financial Aid  
Miami University Hamilton  
1601 University Blvd.  
Hamilton, OH 45011  
513-785-3111 (Admission)  
513-785-3123 (Financial Aid)  
TTY accessible: 513-785-3211  
[www.regionals.MiamiOH.edu](http://www.regionals.MiamiOH.edu)

Office of Admission & Financial Aid  
Miami University Middletown  
4200 N. 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.regionals.MiamiOH.edu](http://www.regionals.MiamiOH.edu)

## Fees and Expenses: Regional Locations

**Note:** All fees and charges are subject to change. For current information on tuition and fees, visit the Bursar's website at [www.MiamiOH.edu/bursar](http://www.MiamiOH.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 your last course is the date that you formally withdraw at the Regional Records and

Registration Offices or at the University Registrar's Office 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 term**, 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 University Registrar's Office 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 (Oxford) or the Financial Aid Office on your campus 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 32 credit hours prior to enrolling in BIS 201.
- Students must complete the entire Miami Plan for Liberal Education or Ohio Transfer Module.
- Students must complete 32 credit hours at the regional campuses.
- Students must complete at least 56 hours at the 200-level and above, including at least 21 hours at the 300-level and above.

**Program requirements:**

**Note:** Students must attain a cumulative GPA of 2.00 in courses in the major. Courses in the major include: The BIS core seminars (BIS 201, BIS 301, BIS 401: 9 credits in total). Courses in the student's chosen concentrations (minimum 15 credits for Concentration I & 9 credits for Concentration II).

**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****Take two of the following:**

ART 256 Design, Perception & Audience (3)  
 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 Workplace Writing (3) or  
 ENG 313 Technical Writing (3)  
 ENG 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)  
 GEO 241 Map Interpretation (3)  
 IMS 201 Information Studies in the Digital Age (3)  
 STA 261 Statistics (4) or  
 ISA 205 Business Statistics (4) or  
 STA 301 Applied Statistics (3)

**Intercultural perspectives**

**Two courses totaling at least six (6) credit hours from the list below or from the list of Miami Plan Global Courses; or**

**Any MPF World Cultures (IIIB) courses that has not already been used to satisfy a Miami Plan Foundation requirement; or**

**Courses or placement in a foreign language through the 202 level; or**

**Courses or placement in a foreign language through the 201 level plus one additional course as detailed above; or**

**Courses or placement in a foreign language through the 102 level plus one additional course as detailed above.**

ART 286 History of Asian Art, China, Korea, and Japan (3)  
 ATH 206/LAS 208 Latin American Civilizations (3)  
 ATH 301 Intercultural Relations (3)  
 ATH 303 Native American Culture (4)  
 ATH 307 The Middle East: Anthropological Perspectives (3)  
 ATH 325 Identity, Race, Gender, Class (3)  
 ATH 329 Religions of Africa (3)  
 ATH/BWS 366 African Oral Traditions (3)  
 ATH 388 Culture, Art, and Artifacts (3)  
 ATH 415/LAS 418 Caribbean Archaeology Field & Lab Methods (6)  
 BWS/GEO 209 Civilizations of Africa (3)  
 BWS/PSY 210 Psychology Across Cultures (3)  
 BWS 225 The Making of Modern Africa (3)  
 BWS/FST 267 National Cinemas: African Film (3)  
 BWS/SOC 348 Race and Ethnic Relations (3)  
 BWS/HST 386 Race in U.S. History (3)  
 BWS/SOC 448 The African-American Experience (3)  
 BWS/GEO 455/555 Race, Urban Change, and Conflict in America (3)  
 CIT 448 Global and Strategic Issues in Information Technology (3)  
 CLS 102 Roman Civilization (3)  
 COM 436 Intercultural Communication (3)  
 EDP 209 Development, Learning & Diversity (3)  
 ENG/WGS 233 British Women Writers (3)  
 ENG 247 Appalachian Literature (3)  
 ENG 248 Asian American Literature (3)  
 ENG/BWS 336 African American Writing, 1746-1877 (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 246 Survey of Medieval History (3)  
 HST 270 Topics in European History (1-4)  
 HST 354 Modern Chinese History (3)  
 HST 383 Women in Chinese History (3)  
 HST 371 Native American History to 1800 (3)  
 LAS 315 Latin American Diaspora (3)  
 POL 271 World Politics (4)  
 POL 326 Comparative Ethnic Politics (3)  
 POL/WGS 346 Global Gender Politics (3)  
 POL 439 North American Politics: Unity and Diversity (3)  
 PSY 325 Psychology of Prejudice and Minority Experience (3)  
 REL 332 The Development of Christianity: 100-451 (3)  
 SOC/WGS 203 Sociology of Gender (3)

**Select and complete 15 hours in one of the following concentrations and 9 hours in another:**

**Applied Kinesiology****Take one of the following:**

BIO 161 Principles of Human Physiology (4)  
 KNH 184 Motor Skill Learning and Performance (3)  
 KNH 184L Motor Skill Learning and Performance Laboratory (1)

**Take one of the following:**

KNH 293 Fitness and Conditioning (3)  
 KNH 294 Games and Sport (3)

**Take one of the following:**

COM 336 Advanced Interpersonal Communication (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)

**Applied Sociology****One of these:**

SOC 151 Social Relations (4)  
 SOC 153 Sociology in a Global Context (3)

**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 (3-4)  
 SOC 462 Applied Sociological Research (3)

**Child Development****Take this course:**

FSW/KNH 208 Serving and Supporting Children, Youth, and Families II (5)

**Take one (1) of the following:**

EDT 246E Foundations of Language and Literacy (3)  
 FSW 261 Diverse Family Systems Across the Life Cycle (3)  
 FSW 281 Child Development in Diverse Families (4)  
 NSG 232 Health Issues of Children and Youth (2)

**Take two (2) of the following:**

EDT 315E Teaching with Children's Literature Across the ECE Curriculum (3)  
 BWS/FSW SOC 362 Family Poverty (3)  
 AAA/FSW/SOC 363 Sociology of Families (3)  
 FSW 381 Parent-Child Relations in Diverse Families (3)  
 KNH 473 Children and Youth in Sport (3)  
 PSY 331 Infant Development (3)  
 PSY 332 Child Development (3)

**Take this course:**

EDT 422 Studies in Educational Issues (3)

**Contemporary American Experience****One of these:**

AMS 205 Introduction to American Cultures (3)  
 AMS 207 America - A Global Perspective (3)  
 ENG 143 American Literature 1945-Present (3)  
 POL 142 American Politics and Diversity (4)

**Three of these:**

ART 283 Modern America (3)  
 ATH 303 Native American Culture (4)  
 ATH 304 Native North America: Anthropological Perspectives (3)  
 BWS/SOC 348 Race and Ethnic Relations (3)  
 ENG/WGS 232 American Women Writers (3)  
 ENG/AMS 246 Native American Literature (3)  
 ENG/AMS 247 Appalachian Literature (3)  
 ENG/LAS 254 Latino/a Literature and the Americas (3)  
 ENG/BWS 338 African American Writing, 1946-Present (3)  
 HST/AMS 367 The United States in the 1960s (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)

### TWO of these:

ATH 305 Latin America: Anthropological Perspectives (3)  
ATH 307 The Middle East: Anthropological Perspectives (3)  
BWS/GEO 209 Civilization of Africa (3)  
GEO 207 Civilization of the Middle East (3)  
HST 354 Modern Chinese History (3)  
ATH 206/LAS 208 Introduction to Latin America (3)

### TWO of these:

BTE 402 Cross Cultural Leadership Skills (3)  
COM 436 Intercultural Communication (3)  
ECO 305 The Economics of Organization in a Global Economy (3)

## Environmental Studies

### One of these:

BIO 121 Environmental Biology (3)  
BIO 131 Plants, Humanity, and Environment (3)  
BIO 171 Ecology of North America (3)  
GLG 111 The Dynamic Earth (3)  
GLG 121 Environmental Geology (3)

### One of these:

BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4)  
BIO 206 Evolutionary Biology (3)  
BIO 209 Fundamentals of Ecology (3)

### One of these:

GEO 271 Human Dimensions of Natural Resource Conservation (3)  
IES 274 Environment and Sustainability (3)  
IES 275 Principles of Environmental Science (3)  
GLG 307 Water and Society (3)

### Two of these:

ATH 471 Ecological Anthropology (3)  
BIO 351 Environmental Education: Focus on Natural History (4)  
BIO 467 Conservation Biology (3)  
IES 431 Principles and Applications of Environmental Science (3)

## Families, Gender, and Society

### Three of these:

ENG 262 Children's Literature (3)  
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)  
WGS 201 Introduction to Women's Studies (3)

### One of these:

SOC 361/FSW 363 Sociology of Families (3)  
PHL 312 Contemporary Moral Problems (4)  
WGS 301 Women and Difference: Intersections of Race, Class, and Sexuality (3)

### One of these:

EDT 422 Studies in Educational Issues (3)  
FSW 481 Adolescent Development in Diverse Families (3)  
FSW/SOC/WGS 451 Family Violence (3)  
KNH 473 Children and Youth in Sport (3)  
SOC/GTY/WGS 463 Gender and Aging (3)

## Geographic Information Science

### One of these:

CIT 214 Database Design and Development (3)  
ISA 245 Database Systems and Data Warehousing (3)

### All of these:

GEO 441 Geographic Information Systems (3)  
GEO 442 Advanced Geographic Information Systems (3)  
GEO 443 PYTHON Programming for ArcGIS (3)  
GEO 448 Techniques and Applications of Remote Sensing (3)

## In order to complete the GISci certificate program, students must also take

### ONE of the following:

GEO 340 Internship (1-20)  
GEO 444 GIS Techniques in Landscape Ecology (3)  
GEO 447 Aerial Photo Interpretation (4)

## Health Care Administration

### Two of these:

ACC 222 Introduction to Managerial Accounting (3)

BTE 301 Personal Organization Skills (3)  
BTE 302 Financial Information for Managers (3)  
ECO 201 Principles of Microeconomics (3)  
ISA 235 Information Technology and the Intelligent Enterprise (3)

### Two of these:

MBI 361 Epidemiology (3)  
NSG 321 U. S. Health Care System and Culture (3)  
PHL 375 Medical Ethics (4)

### One of these:

BTE 401 Leadership Decision Skills (3)  
NSG 435 Challenges in Health Care Delivery (3)  
CIT 448 Global and Strategic Issues in Information Technology (3)

## Information Technology Strategy for Organizations

### Two of these:

CIT 214 Database Design and Development (3)  
CIT 276 Systems Analysis and Design (3)  
CIT 348 Information Management and Retrieval (3)  
CIT 458 Collaborative System Development and Integration (3)

### One of these:

ENG 413 Grant and Proposal Writing (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: Note: ACC 222 can be substituted for BTE 302.

BTE 301 Personal Organization Skills (3)  
BTE 302 Financial Information for Managers (3)  
BTE 401 Leadership Decision Skills (3)

## Personal Community Health Perspectives

### Take one of the following:

BIO 181 Medicinal and Therapeutic Plants (3)  
DST/ENG 169 Disability Identity (3)  
KNH 102 Fundamentals of Nutrition (3)  
KNH 188 Physical Activity and Health (3)  
MBI 111 Microorganisms and Human Disease (3)  
MBI 131 Community Health Perspectives (2) **and**  
MBI 123 Experimenting with Microbes (1)

### Take three of the following:

COM 231 Small Group Communication (3)  
FSW 381 Parent-Child Relations in Diverse Families (3)  
KNH 242 Personal Health (3)  
MBI 361 Epidemiology (3)  
NSG 317 Teaching Strategies in Health Care (3)  
NSG 321 U. S. Health Care System and Culture (3)  
NSG 380S Grief & Mourning: Global Perspectives (3)  
PHL 231 Happiness (4)  
PHL 375 Medical Ethics (4)  
PSY/AAA/BWS 210 Psychology Across Cultures (3)

### Take one of the following:

COM 436 Intercultural Communication (3)  
NSG 435 Challenges in Health Care Delivery (3)  
NSG 441 Health and Aging: Current Perspectives and Issues (3)

## Understanding Media and Visual Culture

### ONE of these:

ART 183 Images of America (3)  
ART 256 Design, Perception & Audience (3)  
MAC 143 Introduction to Media (3)

### Two of these:

BWS 267 National Cinemas: African Film (3)  
ENG/FST 220 Literature and Film (3; maximum 6)  
ENG/IMS 224 Digital Writing and Rhetoric: Composing with Words, Images and Sounds (3)  
FST 201 Introduction to Film Criticism and History (3)  
MAC 212 Media, Representation, and Society (3)

### One of these:

ART 389 The History of Photography (3)  
FST/ENG 350 Topics in Film (3)  
HST 379 U.S. Consumerism, 1890-Present (3)

**One of these:**

COM 437 Advocacy in Contemporary America (3)  
 COM 438 Political Communication (3)  
 MAC 447 Mass Media Criticism (3)

## Bachelor of Science in Criminal Justice

For more information about criminal justice, email [criminaljustice@MiamiOH.edu](mailto:criminaljustice@MiamiOH.edu) or contact any member of the Justice and Community Studies faculty.

The Bachelor of Science in criminal justice at Miami University's regional campuses offers students a comprehensive and dynamic understanding of crime, justice, punishment and corrections, policing, and the legal system within the context of a liberal arts education. Advancing analytical and critical thinking, problem solving, oral and written communication, technology, quantitative literacy, ethics, application of learning in the field, civic learning, and an appreciation of diversity and of the increasingly global world are core objectives of the program. The ideal is to graduate students who possess the knowledge, experiences, and skills needed to lead a meaningful, reflective life, who will be productive and contributing citizens, who will be successful in their criminal justice careers, and who will be life-long learners.

### Program Requirements: (128 semester hours)

**Core Requirements**

CJS 101 Introduction to Criminal Justice Studies (3)  
 CJS 125 Law and the Courts (3)  
 CJS 211 Law Enforcement (4)  
 CJS 220 Criminal Justice Field Experience (3)  
 CJS 231 Law and Individual Rights (4) **or**  
     CJS 232 Criminal Defense and Adjudication (4)  
 CJS 271 Criminal Behavior (3)  
 CJS 281 Corrections (3)  
 CJS 451 Comparative Justice Systems (3)  
 CJS 461 Applied Research Methods in Criminal Justice (3)  
 CJS 485 Capstone: Seminar in Criminal Justice (3)

**Criminal Justice Cognate Areas (complete one cognate)****Law Enforcement (complete five courses \* = required)**

CJS 231 Law and Individual Rights (4) \*  
 CJS 232 Criminal Defense and Adjudication (4) \*  
 CJS 256 Police Organization, Administration, and Management (4)  
 CJS 272 Forensic Evidence (3)  
 CJS 276 Homeland Security and Critical Incident Management (3)  
 CJS 277 Independent Studies (0-5)  
 CJS 470 Special Topics in Criminal Justice (1-6) (with approval)  
 POL 376 U.S. National Security Policy (3)

**Criminal Justice Administration (complete five courses \* = required)**

BTE 401 Leadership Decision Skills (3) \* **or**  
     BTE 301 Personal Organization Skills (3)  
 BTE 302 Financial Information for Managers (3) \* **or**  
     POL 467 Public Budgeting (3)  
 CJS 321 Criminal Justice Administration (3) \*  
 CJS 256 Police Organization, Administration, and Management (4)  
 CJS 277 Independent Studies (0-5)  
 CJS 470 Special Topics in Criminal Justice (1-6) (with approval)  
 GEO 451 Urban and Regional Planning (3)  
 POL 261 Public Administration (4)  
 POL 362 Public Management, Leadership, and Administrative Politics (3)  
 POL 363 Administrative Law (3)  
 POL 364 Federalism and Intergovernmental Relations (3)  
 POL 468 Public Personnel Administration (3)

**Corrections (complete five courses \* = required)**

CJS 311 Punishment and Social Control (3) \*  
 CJS 312 Community Corrections (3) \*  
 CJS 313 Alternatives to Corrections (3)  
 CJS 331 Juvenile Law (3)  
 CJS 271 Criminal Behavior (3)  
 CJS 470 Special Topics in Criminal Justice (1-6) (with approval)

Students must complete **one of the following**:

PSY 221 Social Psychology (3)  
 PSY 242 Abnormal Psychology (3)  
 WGS 325 Identity, Race, Gender, Class (3)

**The Administration of Law and Justice (complete five courses \* = required)**

CJS 231 Law and Individual Rights (4) \*  
 CJS 232 Criminal Defense and Adjudication (4) \*  
 CJS 277 Independent Studies (0-5)  
 CJS 331 Juvenile Law (3)  
 CJS 470 Special Topics in Criminal Justice (1-6) (with approval)  
 FSW 462 Family Policy and Law (3)  
 IES 450 Environmental Law (3)  
 POL 352 Constitutional Law and Politics (4)  
 POL 353 Constitutional Rights and Liberties (4)  
 POL 362 Public Management, Leadership, and Administrative Politics (3)  
 POL 363 Administrative Law (3)  
 POL 364 Federalism and Intergovernmental Relations (3)  
 POL 382 International Law (3)  
 POL 347 Women and the Law (3)  
 SOC 409 Systems of Justice (3)  
 SOC 412 Sociology of Law (3)

## 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.

## Engineering Technology Electrical and Computer Concentration

The Engineering Technology baccalaureate degree (Electrical and Computer concentration) is a completion program for graduates of associate degree programs in electrical/electronics, electrical and computer, or similar engineering technology programs and for computer information technology or similar programs. The objective of this program is to allow students who possess an associate degree in these areas to complete the bachelor's degree in approximately the equivalent of two years of full-time work (67 semester hours).

Graduates are engineering technologists prepared to fill industrial positions in areas directly related to product design, process control, testing, manufacturing, sales, and service. Typical Electrical and Computer Engineering Technologist's jobs include Communications Engineering, Electronics Engineering, Biomedical Engineering, Sales Engineering, Service Engineering, Controls Engineering, Software Engineering, System Design Engineering, Applications Engineering and R&D Technologist.

### Program requirements:

(131 semester hours)

#### Core Requirements (62 hrs)

ENG 111 Composition and Rhetoric (3)  
 ENG 112 Composition and Literature (3)  
 Biological Science elective (3)  
 Fine Arts elective (3)  
 COM 135 Introduction to Public Expression and Critical Inquiry (3)  
 ECO 201 Principles of Microeconomics (3) or  
 ECO 202 Principles of Macroeconomics (3)  
 Global Perspectives elective (cultures)  
 Global Perspectives elective (historical)  
 Global Perspectives elective (3)  
 ENG 215 Workplace Writing (3)  
 CHM 141 College Chemistry (3) (MPF IVB)  
 CHM 144 College Chemistry Lab (2) (MPF IVB)  
 MTH 125 Precalculus (5)  
 MTH 151 Calculus I (5)  
 MTH 251 Calculus II (4)  
 PHY 171, 172 College Physics (3, 3)  
 PHY 173, 174 Physics Laboratory (1, 1)  
 CHM 141 College Chemistry (3)  
 CHM 144 College Chemistry Lab (2)

#### Technical courses expected from associate degree (24 hrs)

ENG 215 Workplace Writing (3)  
 CSE 153 Introduction to C/C++ Programming (3)  
 ENT 192 Circuit Analysis I (3)  
 ENT 193 Circuit Analysis II (3)  
 ENT 196 Electronics (3)  
 ENT 293 Digital Systems (3)  
 ENT 294 Local Area Networks (3)  
 ENT 295 Microprocessor Technology I (3)

#### Engineering Technology Requirements (44 hrs minimum)

MTH 231 Elements of Discrete Mathematics (3)  
 STA 301 Applied Statistics (3) (MPT)  
 ECE 387 Embedded Systems Design (4)  
 ENT 271 Mechanics I: Statics (3)  
 ENT 298 Data Communications (3)  
 ENT 301 Dynamics (3)  
 ENT 303 Digital Signal Processing Technology (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 403 Wireless Communication and Networks (3)  
 ENT 418 Electro-Mechanical Control Systems (3)  
 ENT 497 Senior Design Project (2)  
 ENT 498 Senior Design Project (2)

### 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.

## Engineering Technology 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). This program is accredited by the Engineering Technology Accreditation Commission of ABET (111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700, <http://www.abet.org/>).

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

#### Core Requirements (44-50 hours)

CHM 141 College Chemistry (3) (MPF IVB) and  
 CHM 144 Lab (2) (LAB)  
 COM 135 Introduction to Public Expression and Critical Inquiry (3)  
 CSE 153 Introduction to C/C++ Programming (3)  
 ECO 201 Principles of Microeconomics (3) (IIC, MPF)  
 ENG 111 Composition and Rhetoric (3)  
 ENG 112 Composition and Literature (3) (MPF I)  
 ENG 215 Workplace Writing (3) or  
 ENG 313 Technical Writing (3)  
 MTH 125 Precalculus (5)  
 MTH 151 Calculus I (5) or  
 MTH 153 Calculus I (4)  
 MTH 251 Calculus II (4) or  
 MTH 249 Calculus II (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) or  
 PHY 173, 174 Physics Laboratory (1, 1)  
 STA 301 Applied Statistics (3)

**Technical course work expected from associate degree (32 hours):**

ENT 135 Computer-Aided Drafting (3)  
 ENT 151 Engineering Materials (3)  
 ENT 192 Circuit Analysis I (3)  
 ENT 193 Circuit Analysis II (3)  
 ENT 196 Electronics (3)  
 ENT 271 Mechanics I: Statics (3)  
 ENT 272 Strength of Materials (3)  
 ENT 293 Digital Systems (3)  
 Additional technical credit hours (8)

**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)

## Engineering Technology 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). This program is accredited by the Engineering Technology Accreditation Commission of ABET (111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700, <http://www.abet.org/>).

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, global perspectives, 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)

**Core Requirements (44-50 hours)**

CHM 141,144 College Chemistry/Lab (3, 2) (MPF IVB)  
 COM 135 Public Expression and Critical Inquiry (3)  
 CSE 163 Introduction to Computer Concepts and Programming (3)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC)  
 ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 112 Composition and Literature (3) (MPF I)  
 ENG 215 Workplace Writing (3)  
 MTH 125 Pre-Calculus (5)  
 MTH 151 Calculus I (5) (MPF V) or  
 MTH 153 Calculus I (4)  
 MTH 251 Calculus II (4) or  
 MTH 249 Calculus I (5)  
 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) or  
 PHY 173, 174 College Physics (1, 1)  
 STA 301 Applied Statistics (3)

**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)

## Bachelor of Science in Civic and Regional Development

For more information about Civic and Regional Development, email [communitystudies@MiamiOH.edu](mailto:communitystudies@MiamiOH.edu) or contact any member of the Justice and Community Studies faculty.

The Civic and Regional Development program offers professional administrative, analytical, communication, and leadership training to prepare students to work in nonprofit organizations, service agencies, philanthropic and development organizations, and local government. During their practicum placements with local organizations, students practice their skills and learn new ones in multiple learning environments.

**Program Requirements**

**Core courses (22 hrs)**

**Complete each of the following:**

CRD 201 Theories of Civic Leadership and Democracy (3)  
 CRD 202 Introduction to Nonprofits and NGOs (3)  
 CRD 301 Community-Based Practicum I (3)  
 CRD 302 Community-Based Practicum II (3)  
 CRD 401 Capstone in Civic and Regional Development (3)  
 ENG 413 Grant and Proposal Writing (3)  
 POL 368 State and Local Government and Politics (4)

**Organizational Leadership (6 hrs)**

BTE 105 Introduction to Marketing (3)  
 BTE 111 Introduction to Management I (3)  
 BTE 112 Introduction to Human Resources Management (3)  
 BTE 301 Personal Organization Skills (3)  
 BTE 302 Financial Information for Managers (3)  
 BTE 401 Leadership Decision Skills (3)

**Issues of Communities, Families, Societies, and Inequalities (6 hrs)**

**Complete two courses from at least two departments. (The second course cannot be taken in either of the departments from a cross-listed course.)**

ATH 301 Intercultural Relations (3)  
 ATH 325 Identity, Race, Gender, Class (3)  
 ATH 331 Social Anthropology (3)

ATH 411/511 Applied Anthropology (3)  
 CJS/BWS 401 Race and Criminal Justice (3)  
 ECO 131 Economic Perspectives on Inequality in America (3)  
 EDL 204 Sociocultural Studies in Education (3)  
 FSW/KNH 207 Serving and Supporting Children, Youth, and Families I (4)  
 GEO 201 Geography of Urban Diversity (3)  
 SOC/FSW 362 Family Poverty (3)  
 SOC/FSW 363 Sociology of Families (3)  
 SOC/BWS 348 Race and Ethnic Relations (3)  
 SOC 372 Social Stratification (3)  
 WGS 201 Introduction to Women's Studies (3)

#### Community and Community-Based Advocacy and Development (6 hrs)

**Take two of these from two departments, at least one of which must be a Communications course.**

CJS 312 Community Corrections (3)  
 CJS 313 Alternatives to Corrections (3)  
 COM 336 Advanced Interpersonal Communication (3)  
 COM 339 Introduction to Organizational Communication (3)  
 COM 359 Strategic Communication Planning (3)  
 GEO 441 Geographic Information Systems (3)  
 SOC 258 Self and Society (3)  
 POL 363 Administrative Law (3)

## Bachelor of Science in Forensic Science and Investigation

For more information about forensic science, email [forensicscience@MiamiOH.edu](mailto:forensicscience@MiamiOH.edu) and for information about forensic investigation email [forensicinvestigation@MiamiOH.edu](mailto:forensicinvestigation@MiamiOH.edu) or contact any member of the Justice and Community Studies faculty.

Forensics is the application of science in law. More specifically forensics is the methodical gathering and analysis of evidence to be used in legal proceedings. The Bachelor of Science in Forensic Science and Investigation has two majors, Forensic Science and Forensic Investigation. The Forensic Science major is interdisciplinary with courses drawn from the natural sciences, criminal justice, and other disciplines. The Forensic Science major is designed to prepare students to work as criminalists, crime scene technicians, and in crime, drug, and other laboratory settings. The Forensic Investigation major is also interdisciplinary with courses in criminal justice, computer information technology, global information systems, anthropology, and other disciplines. The Forensic Investigation major is intended to prepare students for policing and investigative occupations.

Advancing analytical and critical thinking, problem-solving, oral and written communication, technology, quantitative literacy, ethics, application of learning in the field, civic learning, and an appreciation of diversity and of the increasingly global world are core objectives of the degree. The goal is to graduate students who possess the knowledge, experiences, and skills needed to lead a meaningful, reflective life, who will be productive and contributing citizens, who will be successful in their forensic and criminal justice careers, and who will be life-long learners.

### Program Requirements

#### Forensic Science

In addition to the general education requirements, the Miami Plan for Liberal Education, students in the forensic science major will complete 46 hours of natural science courses, 18 hours of criminal justice courses, 18 hours of other required courses, and three additional courses of the student's choice. The courses required to reach the 128 hours minimum are electives of the student's choice.

##### Criminal Justice Core courses

CJS 101 Introduction to the Criminal Justice Studies (3)  
 CJS 231 Law and Individual Rights (4)  
 CJS 235 Forensic Science Survey (3)  
 CJS 272 Forensic Evidence (3)  
 CJS 411 Evidence Law and Expert Testimony (3)

##### Natural Science Core courses

BIO 116 Biological Concepts: Structure, Function, Cellular, and Molecular Biology (4)  
 BIO 342 Genetics (3)  
 BIO 364 Molecular Techniques (2)  
 CHM 141/144 College Chemistry/College Chemistry Laboratory (3, 2)  
 CHM 142/145 College Chemistry/College Chemistry Laboratory (3, 2)

CHM 241/244 Organic Chemistry/Organic Chemistry Laboratory (3, 2)  
 CHM 363/364 Analytical Chemistry/Analytical Chemistry Laboratory (3, 2)  
 MBI 201 General Microbiology (4)  
 PHY 171/173 College Physics/Physics Laboratory (3, 1)  
 PHY 172/174 College Physics/Physics Laboratory (3, 1)

##### Additional required courses

COM 135 Introduction to Public Expression and Critical Inquiry (3)  
 ENG 215 Workplace Writing (3) **or**  
 ENG 313 Technical Writing (3)  
 MTH 125 Precalculus (5)  
 STA 261 Statistics (4)

##### Specialized Electives:

ATH 212 Introduction to Archaeological Theory and Methods (4)  
 ATH 255 Foundations of Biological Anthropology (4)  
 ATH 415 Caribbean Archaeology Field & Lab Methods (6)  
 BIO 171 Human Anatomy and Physiology (4)  
 BIO 172 Human Anatomy and Physiology (4)  
 CHM 332 Outlines of Biochemistry (4)  
 CHM 454 Instrumental Analysis (3)  
 CHM 460 Topics in Physical Chemistry (1-3; maximum 12)  
 CHM 421 Forensic Trace Analysis (2)  
 CHM 421L Forensic Trace Analysis Laboratory (1)  
 CIT 286 Designing and Deploying Secure Enterprise Networks (3)  
 MBI 365 Molecular and Cell Biology (3)

### Forensic Investigation

In addition to the general education requirements, the Miami Plan for Liberal Education, students in the forensic investigation major will complete 63 hours in the major and two additional courses of the student's choice. The courses required to reach the 128 hours minimum are electives of the student's choice.

##### Criminal Justice Core Courses

CJS 101 Introduction to the Criminal Justice Studies (3)  
 CJS 125 Law and the Courts (3)  
 CJS 211 Law Enforcement (4)  
 CJS 231 Law and Individual Rights (4)  
 CJS 232 Criminal Defense and Adjudication (4)  
 CJS 235 Forensic Science Survey (3)  
 CJS 271 Criminal Behavior (3)  
 CJS 272 Forensic Evidence (3)  
 CJS 411 Evidence Law and Expert Testimony (3)  
 CJS 461 Applied Research Methods in Criminal Justice (3)

##### Additional Required courses

ATH 212 Introduction to Archaeological Theory and Methods (4)  
 CHM 121 Introduction to Forensic Chemistry (4)  
 CIT 154 Personal Computer Concepts and Applications (3)  
 CIT 262 Technology, Ethics, and Global Society (3)  
 CIT 358 Information Technology Assurance and Security (3)  
 GEO 441 Geographic Information Systems (3)  
 GEO 442 Advanced Geographic Information Systems (3)  
 GEO 445 Geographic Information Systems for Crime Analysis and Mapping (3)  
 STA 261 Statistics (4)

##### Forensic Investigation Electives (at least two from the following):

ART 389 The History of Photography (3)  
 ATH 351 Archaeological Field Methods (8)  
 ATH 415 Caribbean Archaeology Field & Lab Methods (6)  
 BIO 342 Genetics (3)  
 CJS 220 Criminal Justice Field Experience (3)  
 CJS 256 Police Organization, Administration, and Management (4)  
 CJS 276 Homeland Security and Critical Incident Management (3)  
 CJS 321 Criminal Justice Administration (3)  
 CJS 401 Race and Criminal Justice (3)  
 CJS 451 Comparative Justice Systems (3)  
 GEO 242 Mapping a Changing World (3)  
 GEO 443 Python Programming for ArcGIS (3)  
 GEO 447 Aerial Photo Interpretation (4)  
 GEO 448 Techniques and Applications of Remote Sensing (3)  
 POL 376 U.S. National Security Policy (3)  
 SOC 201 Social Problems (4)  
 SOC 202 Social Deviance (4)

## Health Information Technology Bachelor of Science in Information Technology

For information, contact the CIT Department Office on the Hamilton campus at 301 Mosler Hall (513-785-3132) or on the Middletown campus at 111 Levey Hall (513-727-3380).

The program in Health Information Technology (HIT) is a bachelor's completion degree that addresses the technology and processes used by health care providers and related organizations. The program includes instruction in the technology used to acquire and direct the flow of information between the clinical, administrative, and financial systems in the healthcare industry as well as general principles of information technology. Students who complete the program will obtain a strong background in technology including database, problem-solving, systems analysis, and project management skills as well as a foundation in the culture of the healthcare system. This program prepares students for jobs that integrate healthcare and technology in the evolving U.S. healthcare system.

**Admission to the major:** Students must complete the following requirements before requesting to declare their major as HIT: MTH 102 with a C or higher and credit for CIT 154 or CSE 148 and either set of (CIT 157 and 158) or (BIO 171 and 172). Credit earned for these courses will be applied to the major requirements. Student may enroll as Pre-HIT majors until these requirements are met.

### Program Requirements: (128 Semester hours)

#### Prerequisite and foundation requirements (65-69 hours):

BIO 171 Human Anatomy and Physiology (4) (MPF IVA, LAB)  
BIO 172 Human Anatomy and Physiology (4)  
BIO 325 Pathophysiology (4) **or**  
BIO 342 Genetics (3) **or**  
BIO 232 Human Heredity (3)  
BTE 224 Medical Terminology (3)  
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 214 Database Design and Development (3)  
CIT 268 Introduction to Human-Computer Interaction (3)  
CIT 276 Systems Analysis and Design (3)  
COM 135 Introduction to Public Expression and Critical Inquiry (3)  
CSE 163 Introduction to Computer Concepts and Programming (3)  
MTH 102 Intermediate Algebra (3)

#### Miami Plan English Composition (MPF I) (6)

(recommended: ENG 111 Composition and Rhetoric (3), ENG 112 Composition and literature (3))

#### Miami Plan Fine Arts and Humanities (MPF IIA and MPF IIB) (3-6)

#### Miami Plan Global Perspectives (MPF III) (9, or complete study abroad option)

#### Miami Plan Natural Sciences (MPF IV) (6)

Additional Miami Plan note: All students must take at least one Foundation course that presents a cultural perspective (C) and at least one Foundation course that presents an 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 areas requirement and the cultural and/or historical perspective requirement. Please see the Liberal Education section of the Miami Bulletin for the list of C and H courses.

#### HIT Common Core:

CIT/CSE 262 Technology, Ethics, and Global Society (3) (MPF IIB, IIC)  
CIT 348 Information Management and Retrieval (3)  
CIT 358 Information Technology Assurance and Security (3)  
CIT 431 Health Information Technology I (3)  
CIT 432 Health Information Technology II (3)  
CIT 448 Global and Strategic Issues in Information Technology (3) (MPF IIIB)  
ENG 215 Workplace Writing (3) **or**  
ENG 313 Technical Writing (3)  
ENT 316 Project Management (3)  
NSG 321 U. S. Health Care System and Culture (3)  
NSG 343 Health Care Informatics (3)  
STA 261 Statistics (4) **or**  
STA 301 Applied Statistics (3) **or**  
ISA 205 Business Statistics (4)

#### Miami Plan Thematic Sequence

Any Miami Plan Thematic Sequence (9)

#### Miami Plan Capstone

CIT 458 Collaborative System Development and Integration (3)

Additional coursework to meet bachelor's degree requirements of 128 earned credit hours.

[www.nsginfo@MiamiOH.edu](http://www.nsginfo@MiamiOH.edu)

[www.eas.MiamiOH.edu/departments/nsg/](http://www.eas.MiamiOH.edu/departments/nsg/).

or

This department offers two nursing programs: 4-year baccalaureate and RN-BSN completion. Both baccalaureate programs are accredited by 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 or SAT of 1060, a cumulative GPA of 3.00, and a 3.00 GPA in science courses (including college-prep chemistry with lab, and algebra I and II), **OR**
- have completed 12 semester hours (100 level or higher) at Miami with a cumulative GPA of 2.50 and a grade of C or better in two of the following courses: BIO 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 advisor.

### Program Requirements: (129-130 semester hours)

#### Core Requirements (35-37 hours)

BIO 171 Human Anatomy and Physiology (4) (MPF IVA)  
BIO 172 Human Anatomy and Physiology (4)  
BIO 232 Human Heredity (3) **or**  
BIO 325 Pathophysiology (4)  
CHM 131 Chemistry of Life Processes (4) (MPF IVB) **or**  
CHM 141 College Chemistry/College Chemistry (3) **and**  
CHM 144 College Chemistry/College Chemistry Lab (2)  
ENG 111 Composition and Rhetoric (3) (MPF I)  
ENG 112 Composition and Literature (3) (MPF I)  
MBI 161 Elementary Medical Microbiology (4) (MPF IVA) **or**  
MBI 121 The Microbial World (3) **and**  
MBI 123 Experimenting with Microbes (1) **or**  
MBI 111 Microorganisms and Human Disease (3) **and**  
MBI 123 Experimenting with Microbes (1)  
MBI 361 Epidemiology (3) (MPT)  
PSY 111 Introduction to Psychology (4)

Required psychosocial course, choose from: PSY 210, 231 or 242; SOC 202, 221, 348 or 363; EDP 201, 209, or 272; FSW 261; WGS 202

#### Required Major Courses (75 hours)

NSG 251 Therapeutic Communication in Nursing (3)  
NSG 252 Foundations of Professional Nursing (3)  
NSG 261 Health and Physical Assessment (3)  
NSG 262 Fundamentals of Professional Nursing Practice (4)  
NSG 343 Health Care Informatics (3)  
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)  
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)

## Nursing Bachelor of Science in Nursing

For information, contact the Department of Nursing, 152 University Hall, Hamilton campus (513-785-7772),

NSG 364 Nursing Care of Children Clinical (3)  
 NSG 365 Nursing Research (2)  
 NSG 402 Professional Nurse Leader (3)  
 NSG 432 Population Focused Nursing Care Practicum (2)  
 NSG 435 Challenges in Health Care Delivery (3) (MPC)  
 NSG 451 Nursing Care of Clients Experiencing Mental Health Disorders (3)  
 NSG 452 Nursing Care of Clients Experiencing Mental Health Disorders Clinical (3)  
 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)  
 NSG elective (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 GPA.

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 advisor.

### Program Requirements: (128 semester hours)

#### Prerequisites for Admission to the program:

ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 112 Composition and Literature (3) (MPF I)  
 MBI 161 Elementary Medical Microbiology (4) (MPF IVA) or  
 MBI 121 The Microbial World (3) and  
 MBI 123 Experimenting with Microbes (1) or  
 MBI 111 Microorganisms and Human Disease (3) and  
 MBI 123 Experimenting with Microbes (1)

Social science course: select from Global Miami Plan Foundation (MPF IIC) (3)

#### Associate degree nursing courses (28 hours)

#### Core Requirements (9-10 hrs)

BIO 232 Human Heredity (3) or  
 BIO 325 Pathophysiology (4)  
 MBI 361 Epidemiology (3)

#### Choose one of the following psychosocial courses:

EDP 201 Human Development and Learning in Social and Educational Contexts (3)  
 EDP 209 Development, Learning & Diversity (3)  
 EDP/DST 272 Introduction to Disability Studies (3)  
 FSW 261 Diverse Family Systems Across the Life Cycle (3)  
 PSY 210 Psychology Across Cultures (3)  
 PSY 231 Developmental Psychology (3) (MPT)  
 PSY 242 Abnormal Psychology (3)  
 PSY 251 Introduction to Biopsychology (3)  
 SOC 202 Social Deviance (4)  
 SOC 221 Human Sexuality (3)  
 SOC 363 Sociology of Families (3)  
 SOC 348 Race and Ethnic Relations (3)  
 WGS 202 Introduction to GLBT Studies (3)

### Required Major Courses (33 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 (2)  
 NSG 435 Challenges in Health Care Delivery (Capstone) (3) (MPC)  
 NSG elective

## Minors

### Criminal Justice

For more information, email [criminaljustice@MiamiOH.edu](mailto:criminaljustice@MiamiOH.edu) or contact any member of the Justice and Community Studies faculty.

The minor in criminal justice provides students with an introduction to the major systems and institutions that are involved in the investigation, prosecution, adjudication, and punishment of crimes and delinquency, as well as an introduction to the fundamental rights that apply in constitutional law. A minimum of 2.00 GPA must be earned in all the courses completed for the minor.

#### Program Requirements:

CJS 101 Introduction to Criminal Justice Studies (3)  
 CJS 125 Law and the Courts (3)  
 CJS 211 Law Enforcement (4)  
 CJS 231 Law and Individual Rights (4)  
 One elective criminal justice course

### Forensic Investigation

For more information, email [forensicinvestigation@MiamiOH.edu](mailto:forensicinvestigation@MiamiOH.edu) or contact any member of the Justice and Community Studies faculty.

The minor in forensic investigation provides students with an introduction to the field of forensics, including forensic chemistry, science, evidence, law and investigation. Students will focus on the integration and relationship between crime, forensic analysis, constitutional rights, and law enforcement investigation and expert testimony. A minimum of a 2.00 GPA must be earned in all the courses completed for the minor.

#### Program Requirements

CHM 121 Introduction to Forensic Chemistry (4) or  
 CJS 211 Law Enforcement (4)  
 CJS 101 Introduction to Criminal Justice Studies (3)  
 CJS 231 Law and Individual Rights (4)  
 CJS 235 Forensic Science Survey (3)  
 CJS 272 Forensic Evidence (3)  
 CJS 411 Evidence Law and Expert Testimony (3)

## Associate Degree 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.

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.

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 advisor.**

#### Degree Program Requirements

Each BTE degree consists of:

1. A set of core courses that is common to all BTE programs (total of 45 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 electives that is structured similarly for each program (a total of 9 credit hours, except for the real estate program which requires 13 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 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) **or**  
 COM 136 Introduction to Interpersonal Communication (3) MPF IIC  
 ENG 111 Composition and Rhetoric (3) MPF I  
 ENG 215 Workplace Writing (3)  
 MTH 101 Introduction to Elementary Algebra (3)  
 Global 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 263 Sales and Promotions (3)  
 BTE 266 Consumer Behavior (3)  
 BTE 281 Business Communication Software (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

Take any three BTE courses not required for your program, for a total of 9 BTE credits (13 credits are required for Real Estate).

Note: Students intending to pursue the Miami Bachelor of Integrative Studies (BIS) degree with a primary concentration in Organizational Leadership or Cross-Cultural Leadership should substitute BIS-related courses for these BTE electives. This will reduce the number courses to be taken for the BIS degree after completing the BTE associate degree. Students should choose from among Miami Plan Foundation (MPF) courses; Miami Plan Thematic Sequence (TS) courses; BTE 301, BTE 302. Other substitutions are possible. Consult your BTE faculty advisor to ensure correct selection and approval.

### 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 111 Levey Hall (513-727-3380).

Computer and Information Technology focuses on the development and support of computing and networked systems. Computing knowledge and skills are vital for professional success in any field and there will always be a need for technically skilled professionals. The Computer and Information Technology Associate Degree program provides two concentrations essential to contemporary computing, both leading to an Associate Degree in Applied Science with a major in Computer and Information Technology.

The Software Development and Support concentration prepares students to design and create software in a variety of current programming languages and to support application programs and systems. The Networking concentration prepares students to design, install, troubleshoot, and support secure computer networks. Both concentrations provide a foundation of critical analysis, problem solving, and technical and interpersonal communication skills, all of which are critical for success in any technical position.

#### Program Requirements (64)

**Students will take all of the Core requirements (51 hours), Technical electives (4 hours), and choose one of the Concentrations (9 hours) to satisfy the requirement of 64 hours.**

ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 112 Composition and Literature (3) (MPF I)

COM 135 Public Expression and Critical Rhetoric (3)  
 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) (MPF IIB or IIC)  
 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 Global Perspectives elective (MPF III) (3)  
 Miami Plan IIA or Miami Plan IV elective (3)

#### Complete ONE of the following concentrations:

**Please consult course descriptions to determine prerequisites for each course.**

##### Software Development and Support concentration (9 hours)

CSE 174 Fundamentals of Programming and Problem Solving (3)  
 CSE 271 Object-Oriented Programming (3)  
 CIT 263 Advanced Topics in Visual BASIC (3)

##### Networking concentration (9 hours)

CIT 281 Enterprise Network Infrastructure (3)  
 CIT 284 Enterprise Server Installation and Configuration (3)  
 CIT 286 Designing and Deploying Secure Enterprise Networks (3)

##### Technical Electives (4 hours)

**Students may only choose elective courses that are not required as part of their concentration. Please consult course descriptions to determine prerequisites for each course.**

<sup>1</sup>CIT 281 Enterprise Network Infrastructure (3)  
<sup>1</sup>CIT 284 Enterprise Server Installation and Configuration (3)  
<sup>1</sup>CIT 286 Designing and Deploying Secure Enterprise Networks (3)

<sup>2</sup>CSE 174 Fundamentals of Programming and Problem Solving (3)  
<sup>2</sup>CSE 271 Object-Oriented Programming (3)

<sup>3</sup>CSE 201 Introduction to Software Engineering (3)  
<sup>3</sup>CIT 263 Advanced Topics in Visual BASIC (3)

CIT 253 Contemporary Programming Languages (3)  
 CIT 270 Special Topics in Computer and Information Technology (1-3)  
 CSE 153 Introduction to C/C++ Programming (3)  
 CSE 283 Data Communication and Networks (3)

<sup>1</sup>Not available to student in the Networking concentration.

<sup>2</sup>Not available to student in the Software Development and Support concentration.

<sup>3</sup>Not available to student in the Software Development and Support concentration if used as a concentration requirement.

## 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 111 Levey Hall (513-727-3380).

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

CEC 101 Computing, Engineering and Society (1)  
 CSE 174 Fundamentals of Programming and Problem Solving (3)  
 CSE 271 Object-Oriented Programming (3)  
 COM 135 Public Expression and Critical Inquiry (3) **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 IIB or IIC)  
 MTH 151 Calculus I (5) (MPF V)  
 MTH 251 Calculus II (4)  
 Miami Plan electives (12)\*

#### Miami Plan Foundation I (6)

Recommended:

ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 112 Composition and Literature (3) (MPF I)

#### 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)

\* Global 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 Global 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 278 Computer Architecture (3) **or**  
 ECE 278 Computer Architecture (3) \*\*  
 CSE 283 Data Communications and Networks (3)

##### Software Engineering (12 hours)

CEC 102 Problem Solving and Design (3) or equivalent  
 CSE 274 Data Abstraction and Data Structures (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 278 Computer Architecture (3) **or**  
 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) \*\*  
 CEC 102 Problem Solving and Design (3) or equivalent  
 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)

CEC 102 Problem Solving and Design (3) or equivalent  
 CSE 278 Computer Architecture (3) **or**  
 ECE 278 Computer Architecture (3) \*\*

6 hours required for the Computer Engineering major (with advisor approval)

\*\* Courses may be 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

##### Non-Criminal Justice Courses:

COM 135 Public Expression and Critical Inquiry (3)  
 ENG 111 Composition and Rhetoric (3)

ENG 215 Workplace Writing (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 201 Social Problems (4) **or**  
 SOC 202 Social Deviance (4)  
 Student choice of Miami Global Plan Course (3/4)  
 Student choice of Miami Plan Science Course (3/4)

#### **Criminal Justice Courses:**

CJS 101 Intro to the Criminal Justice System (3)  
 CJS 125 Law and the Courts (3)  
 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 271 Criminal Behavior (3) **or**  
 CJS 272 Forensic Evidence (3) **or**  
 CJS 276 Homeland Security and Critical Inc. Management (3)  
 CJS 281 Corrections (3)  
 CJS 282 Seminar in Criminal Justice (3)

#### **Additionally students may choose one of the following:**

CSE 151 Computers, Computer Science, and Society (3)  
 ENG 112 Composition and Literature (3)  
 STA 261 Statistics (4)  
 Fine Arts (3)

## 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 College of Engineering and Computing 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 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).

## Electrical and Computer Engineering Technology: Associate in Applied Science

(66 semester hours)

This program 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. This program is accredited by the Engineering Technology Accreditation Commission of ABET (111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700, <http://www.abet.org/>).

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:**

COM 135 Public Expression and Critical Inquiry (3)  
 CSE 153 Introduction to C/C++ Programming (3)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC) **or**  
 ECO 202 Principles of Macroeconomics (3) (MPF IIC)  
 ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 215 Workplace Writing (3) **or**  
 ENG 112 Composition and Literature (3) (MPF I)  
 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)  
 ENT 291 Industrial Electronics (3)  
 ENT 293 Digital Systems (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 125 Precalculus (5)  
 MTH 151 Calculus I (5) (MPF V)  
 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)

## Mechanical Engineering Technology: Associate in Applied Science

(66 semester hours)

This program 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. This program is accredited by the Engineering Technology Accreditation Commission of ABET (111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700, <http://www.abet.org/>).

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:

COM 135 Public Expression and Critical Inquiry (3)  
 CSE 163 Introduction to Computer Concepts and Programming (3) (MPF V)  
 ECO 201 Principles of Microeconomics (3) (MPF IIC)  
 ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 215 Workplace Writing (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 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)  
 MTH 125 Precalculus (5)  
 MTH 151 Calculus I (5) (MPF V)  
 PHY 171, 172 College Physics (3, 3)  
 PHY 183, 184 College Physics Laboratory (1, 1) **or**  
 PHY 173, 174 Physics Laboratory (1)

## General Studies: Associate in Arts

(64 semester hours)

This program is available to students enrolled at any campus of Miami University who has not completed the requirements for a Bachelor's degree.

Students select a 12 semester hour concentration area, as described below, to complete within the required 64 semester hours of the degree.

### Program Requirements

1. Sixty-four semester hours

2. Miami Plan Foundation requirements
3. 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
4. Minimum 2.00 cumulative GPA
5. Thirty-two semester hours from Oxford, Middletown, or Hamilton campuses
6. Six of the final 10 semester hours from Miami
7. 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 academic 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 program admission requirements are met.

### Program Requirements

#### First year

EDL 204 Sociocultural Studies in Education (3) (MPF IIB) \*  
 EDP 201 Human Development and Learning in Social and Educational Contexts (3) (MPF IIC) \* †  
 EDP 279 Technology + Media Literacy and Learning (3) \* †  
 EDT 190 Introduction to Education (3) \* †  
 EDT 273 Prekindergarten Integrated Curriculum I (3)  
 EDT 274 Prekindergarten Integrated Curriculum II (3)  
 ENG 111 Composition and Rhetoric (3) (MPF I) \*  
 FSW 207 Serving and Supporting Children, Youth, and Families I (4)  
 FSW 261 Diverse Families Across the Life Span (3) (MPF IIC) \* †  
 MTH 115 Mathematics for Early Childhood Teachers (4) (MPF V) \*

#### Second year

EDP 256E Psychology of Learners with Exceptionalities (3) \* †  
 EDT 246E Foundations of Reading, Language, and Literacy (3) \*  
 EDT 272E Introductory Child Development: PreBirth through Age 8 (3) \* †  
 EDT 315E Teaching with Children's Literature Across the ECE Curriculum (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)  
 KNH 245 Health Issues for Children (3) \*

Science: (3 or 4) Physical or Biological Science (MPF IVA or IVB) \*

Elective: (1 or 2)

\* Course can apply (40-41 total credit hours) to Bachelor of Science Degree in Early Childhood Education

† TAG course required by the state of Ohio Department of Education.



## 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.

This technically-oriented program is offered through the combined disciplines of business technology, computer information technology, and engineering technology. Students work with a faculty advisor 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 (3) **or**  
 COM 136 Introduction to Interpersonal Communication (3) (MPF IIC) **or**  
 COM 231 Small Group Communication (3)  
 ENG 111 Composition and Rhetoric (3) (MPF I)  
 ENG 215 Workplace Writing (3)

#### Six semester hours from these:

ENG 112 Composition and Literature (3) (MPF I)  
 Miami Plan fine arts, humanities, or social science course (3) (MPF IIA, IIB, or IIC)  
 Miami Plan U.S. Cultures or World Cultures course (3) (MPF IIIA or IIIB)

#### 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 Regional Locations

Bachelor's degrees can be completed at Miami University's regional locations (Hamilton, Middletown, and West Chester) in criminal justice, engineering technology, forensic science and investigation, information technology, integrative studies and nursing. In addition, matriculated students may begin most majors at the regional locations and then transfer to another college or university or relocate to the Oxford campus to complete their degree. Students are eligible to register for classes on the Oxford campus after earning a minimum of 16 credits (not including 00\_ classes, CLEP, AP, Dual enrollment and PSEOP credits) and 2.00 cumulative grade point average. Regional campus students must complete the appropriate relocation process and paperwork prior to registering for Oxford classes. The University Registrar's Office will verify relocation requirements prior to the start of the intended term of relocation. Students who do not meet the minimum requirements for relocation may request an exception by contacting the regional campus advising offices. A decision will be made in consultation with the appropriate Oxford campus division. Some majors have selective admission requirements. It is important to check your major's requirements with an academic advisor.

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.)

#### Fall Semester

ENG 111 Composition and Rhetoric (3) (MPF I)  
 PSY 111 Introduction to Psychology (4) (MPF)  
 Humanities or fine arts (3) (MPF)  
 Natural science (preferably a biological science) (3) (MPF)  
 Foreign language (3-5) CAS-A

#### Spring Semester

ENG 112 Composition and Literature (3) (MPF)  
 STA 261 Statistics (4) (MP) CAS-E  
 Humanities or fine arts (3) (MPF)  
 Natural science (3-4) (MPF)  
 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 advisor.

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.MiamiOH.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.MiamiOH.edu/graduate-studies/>).

## Departments Offering Graduate Study

Below are the divisions and departments with the graduate degrees and certificate programs offered. The Institute for the Environment and Sustainability; Cell, Molecular and Structural Biology; and Ecology, Evolution and Environmental Biology are interdisciplinary programs.

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

**Biology:** Master of Arts; Master of Science; Master of Arts in Teaching (biological sciences); Doctor of Philosophy; certificate in ecology

**Cell, Molecular and Structural Biology:** Master of Science; Doctor of Philosophy

**Chemistry and Biochemistry:** Master of Science; Doctor of Philosophy

**Comparative Religion:** Master of Arts

**Ecology, Evolution and Environmental Biology:** Doctor of Philosophy

**Economics:** See Farmer School of Business.

**English:** Master of Arts, Master of Arts in Teaching; Doctor of Philosophy

**Environmental Sciences:** Master of Environmental Science

**French:** Master of Arts

**Geography:** Master of Arts

**Geology & Environmental Earth Science:** Master of Arts; Master of Science; Doctor of Philosophy

**History:** Master of Arts

**Mathematics:** Master of Arts; Master of Science; Master of Arts in Teaching (for licensed teachers)

**Microbiology:** Master of Science; Master of Arts in Teaching (biological sciences), Doctor of Philosophy; certificate in ecology

**Philosophy:** Master of Arts

**Physics:** Master of Science

**Political Science:** Master of Arts

**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 College of Education and Allied Professions.

**Sociology and Gerontology:** Master of Gerontological Studies; Master of Population and Social Gerontology; 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

**Statistics:** Master of Science; Certificate in Applied Statistics

**Women's, Gender, and Sexuality Studies Program:** Certificate

## The Farmer School of Business

**Accountancy:** Master of Accountancy

**Economics:** Master of Arts

**Business Administration:** Master of Business Administration

## College of Education, Health, and Society

**Educational Leadership:** Master of Education; Master of Science; Doctor of Philosophy

**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 & Social Work:** Master of Science; Master of Arts

**Kinesiology and Health:** Master of Science in Kinesiology and Health

**Music, education:** See College of Creative Arts.

**Teacher Education:** Master of Education; Master of Arts in Teaching

## College of Engineering and Computing

**Computer Science and Software Engineering:** Master of Computer Science; Master of Science Computational Science and Engineering

**Chemical, Paper and Biomedical Engineering:** Master of Science

**Electrical and Computer Engineering:** Master of Science Computational Science and Engineering

**Mechanical and Manufacturing Engineering:** Master of Science Computational Science and Engineering

## College of Creative 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.

Applied Statistics

Assessment and Evaluation

College Teaching

Ecology

Gerontology  
Interactive Media Studies  
Russian, Eastern European and Eurasian Studies  
String Instrumental Performance  
Women's, Gender, and Sexuality Studies

# Admission for Graduate Students

## Graduate School

102 Roudebush Hall

Phone: 513-529-3734

[www.MiamiOH.edu/graduate-studies/](http://www.MiamiOH.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:

[www.MiamiOH.edu/graduate-studies/](http://www.MiamiOH.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@MiamiOH.edu](mailto:gradschool@MiamiOH.edu)  
Web: [www.MiamiOH.edu/graduate](http://www.MiamiOH.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.
- One official transcripts from the college or university that awarded you the baccalaureate degree. Transcripts are not required from Miami University graduates.
- One 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 MBA Program  
Voice of America Learning Center, West Chester, Ohio 45069  
Phone: 513-895-8876

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](http://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.MiamiOH.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. 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.MiamiOH.edu/graduate-studies/international-application.html>

and from:

Graduate School  
102 Roubush Hall  
Miami University  
Oxford, OH 45056 USA  
Phone: 513-529-3734  
Fax: 513-529-3762  
E-mail: [intlapp@MiamiOH.edu](mailto:intlapp@MiamiOH.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](http://www.toefl.org) for the TOEFL or at [www.ielts.org](http://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.MiamiOH.edu/graduate-studies/admission/english-prof-new.html](http://www.MiamiOH.edu/graduate-studies/admission/english-prof-new.html).

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; however only twelve hours may be applied to a degree program.

To apply for admission, submit to the Graduate School:

- Completed admission application form;
- Nonrefundable application fee.

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 twelve 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 twelve 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.MiamiOH.edu/graduate-studies/](http://www.MiamiOH.edu/graduate-studies/)

## 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 term. 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 Niihka site on myMiami. **Your thesis must be electronically deposited at OhioLINK** 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 2012 must complete their programs by December 2017). 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 Bachelor's and Master's Degree Program

Departments and programs that offer the master's degree have the option of offering a combined bachelor's and master's

degree option. See the specific department/program of interest for program and admission details.

**Admission Requirements:** Students can be admitted on a provisional basis to the combined program anytime during their academic career at Miami, from the time they apply for undergraduate admission. Upon earning a minimum of 64 hours and having a GPA of 3.25 or greater, students may apply to a combined program by completing the Graduate School application and submitting materials as required by the program to which they are applying. Standard application and admission procedures shall be used. Both full- and part-time students may participate in the combined program at a department's discretion. Regular time-limits for completing the master's degree apply to students in a combined program.

**Double Counting Graduate Hours:** Departments or programs with a combined degree may allow students to double-count up to twelve hours of graduate course work toward their undergraduate degree. With permission of the appropriate advisor(s) and dean(s) or their designee(s), these students may count the graduate courses toward their major, minor, electives, and university requirements. A minimum of 150 hours is required for the combined program; 120 semester hour minimum for a bachelor's degree and 30 graduate semester hours minimum for a master's degree.

**Student Classification and Graduation:** Students in a combined program will remain undergraduates until they apply for graduation or submit a request to the Graduate School to have their classification changed from undergraduate to graduate. Students must have completed a minimum of 128 hours to be classified as a graduate student. Students may receive their bachelor's degree prior to completing their master's degree. Upon receiving the bachelor's degree, students will automatically be classified as graduate students. Students receiving the bachelor's degree prior to completing the master's degree can count up to twelve hours of graduate course work toward their bachelor's degree. Those hours can also count toward the completion of their master's degree as indicated above.

Students may withdraw from the combined program by completing a withdrawal form at the Graduate School. The student must note on the withdrawal form that he/she is withdrawing only from the combined program and wishes to retain their status in the undergraduate program. The student must also notify their department of their decision to withdraw from the combined 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 & Environmental Earth Science, 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 advisor 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 advisor. The advisor 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 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 term.

## 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 OhioLINK 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 uploaded to OhioLINK 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.MiamiOH.edu/graduate-studies/](http://www.MiamiOH.edu/graduate-studies/).

## Special Committee Doctoral Degree (Interdisciplinary Degree)

The Graduate School can authorize a special committee to supervise an interdisciplinary doctoral program for students whose needs cannot be met within an established program. Special Committee Degrees are "interdisciplinary degrees" that have unique requirements for each student. Special Committee Degrees are "one of a kind" degrees built around the unique needs of individual students that cannot be satisfied by approved, existing programs and may permit degrees in new and emerging fields or combinations of disciplines. A higher degree of independence is required on the part of the student, since easily-provided guidance from departments is more difficult to obtain, and there is not the usual collegial group of students in closely-related research and course work. The Special Committee Doctoral Degree is reserved for those departments granted the authority to offer the doctoral degree by Miami University and the Ohio Board of Regents.

Prospective students who may have an interest in a Special Committee Doctoral Degree should apply to the department of the degree program that is most central to their major area of interest. The student must meet the admission requirements of the department to which the application is submitted.

Students may be admitted directly to a Special Committee Degree program or enter the interdisciplinary program later. At least 12 credit hours must be remaining in the students' program when their special committee degree proposal is submitted. The prospective student's application must be endorsed by the home department and three potential committee members drawn from Level A faculty from within the home department or from across the University. Special Committee members can be drawn from non-doctoral departments. The Special Committee must consist of not less than five members, with no more than half (higher whole number) being drawn from any one department.

The chairperson (or in the case of co-chairs, one of the co-chairs) must be a member of the department to which the student had originally been admitted. The admitting department

should remain the keeper of the student's records, and should make all appropriate nominations for financial support.

The Special committee is responsible for helping the student develop a plan of study to be submitted to the home department for its approval. That plan of study may be at significant variance with normal departmental requirements so long as it is approved following the established procedures of the home department.

Students 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. The one-page proposal should include (in the following order):

1. Names of two faculty members, in addition to the students' major professor(s), who will supervise their course of study.
2. Explanation of why their needs cannot be met within existing programs and why the special committee degree program is needed.
3. Proposed course of study.
4. Their committee's recommendation for an examination procedure that assures adequate in-depth coverage.

Students should check with the Graduate School and the faculty with whom you are interested in working for guidance in requesting a special committee for your program of study. Special committee members can be from non-doctoral departments and must have Level A standing on the Graduate Faculty. Students' course of study may vary from normal departmental requirements, as long as it is approved within the established procedures of the department. After their three committee members and department endorse the proposal, it is submitted to the Graduate School.

The Special Committee is governed by the expectations and regulations of the Graduate School as prescribed in the **Miami Bulletin** and **A Handbook for Graduate Students and Faculty**.

## 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 terms 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, 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, MSC 1002  
3094 Farmer School of Business (513-529-3372)  
[www.fsb.MiamiOH.edu/macc](http://www.fsb.MiamiOH.edu/macc)

The department's mission is to prepare students to excel as high-integrity business leaders and accounting professionals and to enable faculty members to be outstanding instructors whose scholarship informs their teaching and who positively impact the professional and Miami community. The Department of Accountancy has been accredited by the Association to Advance Collegiate Schools of Business International since 1984.

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) (optional for Miami University undergraduates), letters of recommendation, personal statement, and professional, community, and extracurricular activities.

The GMAT and TOEFL score reports (if required) should be sent directly to Miami University. All candidates apply online, uploading an unofficial transcript, resume, and personal statement. Letters of recommendation may be completed electronically or manually; paper copies 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.

The Master of Accountancy Program is a lock-step program consisting of 30 semester hours of coursework in accountancy and other business disciplines.

### Current MAcc curriculum is as follows:

#### Fall

ACC 646 Taxes and Business Decisions (3)  
ACC 653 Assurance Services (3)  
ACC 655 Control of Accounting & Reporting Risk (3)  
BLS 665 Business & Its Legal Environment (3)  
FIN 655 Analysis of Business Finance and Investments (3)

#### Spring

ACC 622 Information for Business Valuation and Decisions (3)  
ACC 650 Fraud Examination (3)  
ACC 695 Integrative Accounting Capstone (3)  
ISA 625 Management of Information Technology (3)

#### Combined Degree Option

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 bachelor's degree. This requires additional education beyond the requirements for a bachelor's degree from Miami.

High-achieving students have the option of pursuing a combined-degree program, in which you can earn both your bachelor's and master's degrees in accountancy within four years. 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.

To be eligible to apply for the dual-degree program, students must have completed at least 64 credit hours with a minimum GPA of 3.40 and have earned a B or better in ACC 221, ACC 222, and ACC 321 (ACC 321 must have been taken at Miami). Please contact the department's academic program coordinator to learn more about this option.

## Applied Statistics Certificate

For more information, contact:

Director of Graduate Studies  
Department of Statistics  
311 Upham Hall (513-529-7828)  
<http://www.units.MiamiOH.edu/sta/>

Statistics is the language of experimentation and scientific inquiry. Statistics as a discipline provides insights into the best methods associated with the collection, analysis, and presentation of numerical data. Decisions related to the design of surveys and experiments, the collection, processing, and analysis of data; and the interpretation of the results are directly impacted by statistics. Further, these decisions cut across disciplines. This graduate certificate provides a broader exposure to statistics that includes basic background (introductory statistics), essential ideas in modeling (regression and experimental design), programming to generate customized analytic solutions and a collection of advanced methods courses.

#### Introductory Statistics

STA 671 Environmental Statistics (3)  
EHS 667 Behavior Statistics (3)  
GTU 708 Quantitative Methods and Statistics (4)  
PSY 601 Statistics and Methods I (3)  
STA 501 Probability (3) **and**  
STA 562 Inferential Statistics (3) **or**  
other comparable course(s) approved by the Coordinating Committee

#### Regression and Experimental Design

EHS 668 Behavior Statistics II (3)  
GTU 718 Statistical Modeling in Gerontology (3)  
PSY 602 Statistics and Methods II (3)  
STA 563 Regression Analysis (4) **or**  
other comparable course(s) approved by the Coordinating Committee  
STA 672 Statistical Modeling and Study Design (4)

#### Statistical Programming

STA 502 Statistical Programming (3)  
CSE 603 Computer Programming (3) **or**  
other comparable course(s) approved by the Coordinating Committee

#### Advanced Methods

STA 583 Analysis of Forecasting Systems (3)  
GTU 750 Special Topics in Advanced Quantitative Methodology in Aging Research (1-4) **or**  
other comparable course(s) approved by the Coordinating Committee

## 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.MiamiOH.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 supports laser cutting, 3D printing, and CNC/Rapid Prototyping equipment.

#### Visual Resources Center: Art Building

The Miami University College of Creative Arts maintains a divisional collection of visual resources located in the Art Building. The collection contains approximately 30,000 digital images. 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. Services include slide digitizing, scanning and a student work documentation studio.

#### Exhibit Galleries

The College of Creative Arts maintains several divisional art galleries. The exhibit gallery in Hiestand Hall supports faculty and student exhibits, traveling exhibitions, and other exhibit + performance events sponsored by the Departments of Art, Architecture and Interior Design, Theatre, and Music. The Cage Gallery, located in the lower level of Alumni Hall, provides ongoing exhibits of professional as well as student work within Architecture and Interior Design.

### Admission Requirements

#### Application Process

Applications are considered from any student with an accredited Bachelor's degree, regardless of their major. Applicants must be admitted to both Miami University's Graduate School and to the Master of Architecture Program.

#### Application Deadline: January 15

#### Submit the online application to the Graduate School.

This includes:

**Three letters of recommendation**, written by individuals who are able to assess your academic or professional potential. At least one letter should be from an academic source. You will specify your recommenders in the online application.

**A personal statement** that describes how Miami University's Master of Architecture degree will help you attain your educational goals, enable you to explore your interests, and also how you could contribute to the academic and creative community of the graduate program.

**A curriculum vitae or resume** that describes your academic and professional accomplishments, scholarship, research, and creative activity.

**A writing sample**, either academic or creative.

#### Submit required GRE scores.

Miami University's code is 1463 and Graduate Architecture Studies code is 4401.

Submit a portfolio of creative work to:

Graduate Admissions Committee  
c/o Architecture Graduate Studies  
100 Alumni Hall  
Miami University  
Oxford, OH 45056  
USA

For applicants to the M. Arch. I or M. Arch. II programs, the portfolio should include examples of undergraduate and/or professional architectural design projects, but can also include other work.

For applicants to the M. Arch. III program, the portfolio can include examples from architectural projects, if applicable. The portfolio should include work that demonstrates creative accomplishments.

Portfolio contents can be from any creative field, including design, photography, studio arts, film, writing, music, and performance. Candidates from technical disciplines, such as science or engineering, should contact the program to determine suitable application materials.

All M. Arch applicants are encouraged to include non-architectural work within their portfolio. For applicants with an architectural background, the portfolio review examines both technical competency and creative ability. However, for non-architectural M. Arch III applicants, the portfolio review focuses more on the applicant's creative abilities and technical potential.

The portfolio should contain only printed reproductions, please do not send originals. There is no required format or size, but the portfolio should be less than 12"x18" for our filing system. If your portfolio contains group work, you must note this and describe your role in the project.

If you would like your portfolio returned to you, please include a pre-addressed mailer with postage. The department assumes no responsibility for the loss of any portfolio.

Acceptance is based on review by the Graduate School as well as the Graduate Admissions Committee. Both must approve the application before an offer of acceptance can be made.

### Program Requirements

Programs vary according to undergraduate preparation. The M.Arch. II is a two-year program entailing 60 credit hours of graduate level courses. (Additional credit hours required if all pre-requisites have not been met). 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 42

credit hours of preparatory courses in addition to the final 63 credit hours for a total of 105 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, who have significant professional experience, 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 + 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 + 60 graduate credits) and Master of Architecture III (non-pre-professional degree + 105 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 after consultation with the appropriate instructor. 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 + 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, who have significant professional experience, 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. Additional credit hours will be required if all pre-requisites have not been met)

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 coursework 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 graduate credit hours, normally completed in two academic years. Additional credit hours required if all prerequisites have not been met. 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 credit hours)

##### Fall

A 500 level Departmental Graduate Seminar (3) \*

\* See Advisor to determine eligible course options

ARC 513 Environmental Systems I<sup>3</sup> (3)

ARC 601 Architecture Studio<sup>1</sup> (6)

ARC 634 Architecture Theory and Research (3)

##### Spring

ARC 511 Structural Design<sup>3</sup> (3)

ARC 514 Environmental Systems II (3)

ARC 602 Architecture Studio<sup>1,2</sup> (6)

ARC 636 Design and Research Methods (3)

##### Summer

ARC 700 Directed Thesis Research (3)

#### 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<sup>3</sup> (3)

ARC 541 Professional Practice<sup>3</sup> (3)

ARC 701 Pre-Thesis Architecture Studio (6)

## Spring

ARC 551 Contemporary Architectural Theory and Practice (3)<sup>1</sup>

ARC 702 Thesis Architecture Studio (6)

A Graduate Level elective (3)

<sup>1</sup> ARC 517 Architectural Materials, ARC 518 Construction Methods, and ARC 621-622 History of Architecture I, II (or their equivalent) are the normal prerequisites for ARC 601-602. A pre-semester review will be held to determine if these prerequisites are met.

<sup>2</sup> ARC 513 Environmental Systems (or the equivalent) is a prerequisite for ARC 602.

<sup>3</sup> ARC 511, ARC 512, ARC 513, ARC 514, ARC 541 and ARC 551 can be waived and elective coursework substituted 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)

(105 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 105 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 105 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 in the latter part 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 (42 credit hours)

#### Summer

ARC 581 Architecture Studio (6)

ARC 612 Graphic Media I (2)

#### Fall

ARC 517 Architectural Materials (3)

ARC 582 Architecture Studio (6)

ARC 613 Graphic Media II (2)

ARC 621 History of Architecture I (3)

#### Spring

ARC 518 Construction Methods (3)

ARC 583 Design Studio (6)

ARC 614 Graphic Media III (2)

ARC 622 History of Architecture II (3)

#### Summer

ARC 584 Architectural Design Studio (Off-Campus) (6)

### Second Year (33 credit hours)

#### Fall

ARC 510 Statics and Strength of Materials (3)

ARC 513 Environmental Control Systems I (3)

ARC 601 Architecture 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

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 Architecture Studio (6)

#### Spring

A 500 Level Departmental Graduate Seminar (3)\*

\*See Advisor to determine eligible course options

ARC 551 Contemporary Architectural Theory and Practice (3)

ARC 702 Thesis Architecture Studio (6)

A Graduate Level Elective (3)

## 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 advisor, and the director of architecture graduate studies. Potential subjects of study should be related to areas of expertise represented by Miami's Architecture + 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 other departments at the University, make the construction of personalized and imaginative curricula feasible, and interdisciplinary projects conceived in this manner are encouraged.

#### Fall

A 500 Level Departmental Graduate Seminar (3)\*<sup>1</sup>

A 500 Level Departmental Graduate Seminar (3)\*<sup>1</sup>

ARC 701 Pre-Thesis Architecture Studio (6)

\*See Advisor to determine eligible course options

Elective (3)

#### Spring

ARC 702 Thesis Architecture Studio (6)

A 500 Level Departmental Graduate Seminar (3)\*<sup>1</sup>

A 500 Level Departmental Graduate Seminar (3)\*<sup>1</sup>

\*See Advisor to determine eligible course options

A Graduate Level Elective (3)<sup>2</sup>

#### Summer

A Graduate Level Elective (3)<sup>2</sup>

A Graduate Level Elective (3)<sup>2</sup>

<sup>1</sup> Architectural history theory electives

<sup>2</sup> Elective coursework that supports your basic program chosen from this or other graduate programs. With your advisor's approval, you are expected to develop a program consistent with your educational objectives and needs.

## Art, Experience Design Master of Fine Arts

For information, contact:  
Experience Design Graduate Director  
Department of Art  
124 Art Building (513-529-2900)  
<http://MiamiOH.edu/cca/academics/departments/art/academics/graduate-studies/experience-design>

### Admission Requirements

In addition to requirements of the Graduate School, you must meet departmental requirements. Departmental acceptance into the M.F.A. program is determined by graduate faculty evaluation of a resume, a statement of intent, experience, and a web portfolio of work. These materials should be submitted to the studio graduate director of Experience Design at the time of application to the Graduate School. An on-campus interview with the director 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.

- 18 semester hours of 600-level studio courses
- 21 semester hours of required graduate-level courses in ART and IMS
- 12 semester hours of approved electives in ART, IMS, and ESP\* (students who teach as adjuncts must take ART 601 Teaching Seminar.)
- 3 semester hours in graduate level elective or independent study in any field
- 6 semester hours, thesis (option to take an additional 3 hours under the approved elective category)

Students who require additional design skills to meet entrance requirements can follow an alternative three year path. The 3 year option is for students who have a strong interest—but not a strong background—in graphic design. Students accepted under the 3 year option first complete our Graphic Design Intensive: one year of coursework (6-9 hours each semester, 15 hours total). At the end of this year, they receive a Graduate Certificate in Graphic Design. To complete their MFA, they must then participate in a full faculty review of their first year work. Continuation in the program is subject to this review.

## Art, Studio Master of Fine Arts

For information, contact:  
Studio Art Graduate Director  
Department of Art  
124 Art Building  
(513-529-2900)  
<http://arts.MiamiOH.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

## Graduate Certificate for Professional Development: Post-Baccalaureate in Advanced Studio Art

The Post-Baccalaureate in Advanced Studio Art certificate provides focused advanced professional studio experience and portfolio development for the experienced visual artist. The certificate offers a 5th-year opportunity for portfolio development in preparation for Graduate School applications, for advanced studio training for art educators and professional artists in one of the following six media tracks: Ceramics, Metals, Painting, Printmaking, Photography, or Sculpture.

The Advanced Studio Art certificate program further develops concepts, techniques, materials, methods and critical aesthetic thinking as applied to process of creating two-dimensional or three-dimensional works of art.

### Program Requirements: 15 graduate level credit hours total

Choose one track (9 - 12 hours studio concentration):

#### Track 1: Ceramics

ART 561 Ceramics IV (3)  
ART 562 Ceramics V (3)  
ART 600 Advanced Research Problems (3-6)

#### Track 2: Metals

ART 564 Jewelry Design and Metals IV (3, 3)  
ART 600 Advanced Research Problems (3-6)

#### Track 3: Painting

ART 531 Painting IV (3)  
ART 532 Painting V (3)  
ART 600 Advanced Research Problems (3-6)

#### Track 4: Photography

ART 557 Photography IV (3)  
ART 558 Photography V (3)

ART 600 Advanced Research Problems (3-6)

**Track 5: Printmaking**

ART 541 Printmaking IV (3)

ART 542 Printmaking V (3)

ART 600 Advanced Research Problems (3-6)

**Track 6: Sculpture**

ART 571 Sculpture IV (3)

ART 572 Sculpture V (3)

ART 600 Advanced Research Problems (3-6)

**Choose (3-6 hours) from the following:**

ART 620 Graduate Study in Drawing (3-6)

Any 500-level Art History

Portfolio submission required. February 1 deadline for Summer or Fall admission. September 1 for Spring admission; any alternate portfolio reviews are by arrangement through the studio faculty and the Graduate Director, Department of Art. All courses are subject to Permission of Instructor. A 3.00 GPA is required for all course work in the certificate.

**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.)

**Biochemistry M.S., Ph.D.**

See entry under Chemistry – M.S., Ph.D.

For information, contact:

Chair, Graduate Admissions Committee  
Department of Chemistry and Biochemistry  
160 Hughes Laboratories (513-529-2813)  
<http://chemistry.MiamiOH.edu/>

**Biological Sciences Master of Arts in Teaching**

For information, contact:

513-529-8576

<http://masters.df.MiamiOH.edu>

The Master of Arts in Teaching (MAT) in the Biological Sciences is a part-time, non-thesis master's program designed for formal and informal educators who already hold teaching licensure. The program is cooperatively offered by Project Dragonfly and the Departments of Biology and Microbiology. The MAT has two main programs: the Advanced Inquiry Program (AIP) and the Global Field Program (GFP). The Master's is designed to be completed in 2.5 years.

This program is not intended to lead to teacher certification. Teachers are advised to contact their individual school districts as to whether this program may qualify for salary advancement.

Miami University is authorized by the Washington Student Achievement Council (WSAC) and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree-Granting Institutions Act. This authorization is subject to periodic review and authorizes to offer specific degree programs. The WSAC may be contacted for a list of the board of the institution or its programs. Any person desiring information about the requirements of the act or the applicability of those requirements to the institution may contact the WSAC at P.O. Box 4340, Olympia, WA 98504-3430.

**Admission Requirements**

Incoming students are expected to be over the age of 18 and have completed a bachelor's degree. Students admitted to the program who have not completed at least one university-level life science course or its equivalent will need to complete one of several options (determined by the MAT graduate committee) for basic biology content as part of the master's degree program. Applicants should submit application materials including recommendations via the "apply" page on their chosen program (GFP or AIP) website.

Applicants should send to the Graduate School: (1) the Graduate School application form and application fee and (2) official transcripts of all previous academic work.

**Program Requirements:  
(35 semester hours)**

1. Complete at least 35 credits of graduate work, including 21 hours through an AIP Master Institution or Earth Expeditions international field courses and 14 hours of web-based courses which include:

**Art Education Master of Arts**

For information, contact:

Graduate Director for Art Education  
Department of Art  
124 Art Building (513-529-2900)

<http://arts.MiamiOH.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)



- Completion of the MAT's Leadership in Science & Inquiry course and requirement (2 credits).
  - Completion of the MAT's Professional Media Workshop course and requirement (2 credits).
  - Completion of the MAT's Master's Capstone course (2 credits), including development of a teaching/work portfolio.
2. The MAT program graduate committee must approve the academic program for students.

MAT students are required to complete a teaching portfolio adaptable for National Board Certification requirements. Degree candidates can focus portfolio work in a region (e.g., Africa, Pacific Northwest, etc.) or on a theme (e.g., environmental education).

For more information about requirements, admission, and program description go to <http://masters.df.MiamiOH.edu>.

## Biology Master of Arts, Master of Science, Doctor of Philosophy

For information, contact:  
Chair of Graduate Advisory Committee  
Department of Biology  
212 Pearson Hall (513-529-3100)  
<http://zoology.MiamiOH.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 more than 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 advisor.

### Admission Requirements for the Master of Arts in Biology Program:

Incoming students are expected to be over the age of 18 and have completed a bachelor's degree. Students admitted to the program who have not completed at least one university-level life science course or its equivalent will need to complete one of several options (determined by the MA graduate committee) for basic biology content as part of the Master's degree program. Applicants should submit application materials and two letters of recommendation at the following websites: Global Field Program: <http://gfp.MiamiOH.edu/>; Advanced Inquiry Program: <http://aip.MiamiOH.edu/>.

Applicants should send to the Graduate School: (1) the Graduate School application form and application fee and (2) official transcripts of all previous academic work. For more

information about requirements, admission, and program descriptions go to <http://master.df.MiamiOH.edu>.

### For the Master of Science and Doctoral Programs:

All application instructions can be accessed through the Miami University Graduate Studies website (<http://www.miamioh.edu/graduate-studies/admission/>)

#### A complete application must include the following:

1. Submit your application, pay the application fee, and submit all supplemental materials (numbers 2-7 below) electronically: (<http://www.applyweb.com/apply/MiamiOHg/index.html>).
2. Official copies of transcripts for all undergraduate and graduate work. Unofficial transcripts should be submitted with your application (with your name and institution clearly indicated). If admitted, you will be required to submit an official transcript for each degree earned.
3. An official copy of the Graduate Record Examination (GRE) general test. You may apply before completing the GRE, but your application will not be reviewed until an official score report is received.
4. For most international applicants, an official copy of scores on the Test of English as a Foreign Language (TOEFL) is also required.
5. Resume.
6. Three letters of recommendation.
7. Personal Statement - a letter outlining professional goals, research interests, and potential faculty advisor(s). We encourage you to contact individual faculty members with whom you share a research interest (email links available on our web site: <http://zoology.MiamiOH.edu>) prior to submitting your application. To be admitted, you must identify at least one faculty member that is willing to serve as your advisor.

For more information about requirements, admission, and program description go to Biology Department Graduate Programs.

## 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

### Biology- Master of Science

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 workshop upon entry to the graduate program, prior to assistantship duties, and complete an introductory seminar (BIO 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 biology. 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 workshop upon entry to the graduate program, prior to assistantship duties, and complete an introductory seminar (BIO 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 biology, 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 biology. 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.

## Program Requirements: Biology- Master of Arts (MA)

The Master of Arts (MA) in Biology is a part-time, non-thesis master's program designed for working professionals from diverse backgrounds, including formal and informal educators. The program is cooperatively offered by Project *Dragonfly* and the Department of Biology. The MA has two main programs: the Advanced Inquiry Program (AIP) and the Global Field Program (GFP) (for details, see Project *Dragonfly*).

1. Complete at least 35 credits of graduate work, normally including 21 hours through an AIP Master Institution or Earth Expeditions field courses and 14 hours of web-based courses which include:
  - Completion of the MA's Leadership in Science & Inquiry course and requirement (2 credits).
  - Completion of the MA's Professional Media Workshop course and requirement (2 credits).
  - Completion of the MA's Capstone course (2 credits), including a professional portfolio.
2. The MA program graduate committee must approve the academic program for students.

MA students create a master plan and work portfolio that advance their learning and professional goals. Master plans are theme-based (e.g., community engagement in environmental stewardship) and may focus on a region (e.g., Africa, Pacific Northwest, etc.).

Miami University is authorized by the Washington Student Achievement Council (WSAC) and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree-Granting Institutions Act. This authorization is subject to periodic review and authorizes to offer specific degree programs. The WSAC may be contacted for a list of the board of the institution or its programs. Any person desiring information about the requirements of the act or the applicability of those requirements to the institution may contact the WSAC at P.O. Box 4340, Olympia, WA 98504-3430.

For more information about requirements, admission, and program descriptions go to <http://masters.df.MiamiOH.edu>.

## Requirements: Biological Sciences- Master of Arts in Teaching (35 semester hours)

For more information about requirements, admission, and program description go to <http://masters.df.MiamiOH.edu>.

## Requirements: Doctoral Programs

### Doctor of Philosophy/Biology

In addition to the general requirements specified by the Graduate School, you must:

1. Fulfill all requirements specified for the Master of Science in Biology 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 (BIO 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 biology 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 biology, and a course in statistics or mathematical modeling; (b) at least four seminars in ecology; and (c) at least 30 hours of dissertation credit (BIO 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.

## Botany M.A. in Teaching, M.S., Ph.D., Certificate in Ecology

For information, contact:  
 Director of Graduate Studies  
 Department of Biology  
 212 Pearson Hall (513-529-3100)  
[www.MiamiOH.edu/botany](http://www.MiamiOH.edu/botany)

## Research and Support Facilities

The department has well-equipped research laboratories in plant anatomy and morphology, cell biology, plant ecology, plant evolutionary genetics, plant molecular biology, mycology, plant physiology, plant systematics, and bioinformatics. 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 a departmental application, transcripts, Graduate Record Examination (GRE) scores, three letters of recommendation, a copy of your resume/CV, and a statement that describes your training and experience and defines your area of research interest and long-range goals. (See department Web site.)

### Requirements: Master of Arts (30 semester hours)

1. Minimum background preparation at the undergraduate level in:
  - general biology or botany
  - organic chemistry or biochemistry
  - genetics or evolution
2. Complete a total of 30 hours at the graduate level. Of these 30 hours, a minimum of 20 must be taken from the Biology Department, including a minimum of 15 from plant-focused courses and the 1 hour graduate colloquium (BIO 660). A maximum of 12 credit hours can be independent study or internship hours.
3. Complete an internship, practicum, or research experience (or approved substitute) and write a final report in accordance with current Graduate School guidelines.
4. Pass an oral defense of their final 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://masters.df.MiamiOH.edu> or visit the Biological Sciences field of study in this Bulletin.

### Requirements: Master of Science (30 semester hours)

1. Master's candidates who have not had adequate undergraduate training in general biology or botany, organic chemistry or biochemistry, and genetics or evolution, must make up such deficiencies as part of the graduate program.
2. Complete BIO 601 during the summer term preceding your first fall semester in residence, and complete BIO 660 during your first fall semester in residence.
3. Complete at least 30 hours of graduate work including at least: (a) one of BIO 650, 720, or equivalent; (b) one botany graduate (500 or above) course of three credit hours or more (with a "B" or higher) from three of the four core areas in botany; (c) one additional pedagogical botany graduate course exclusive of BIO 600, 720, and 750; (d) completing six to 12 hours of BIO 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 by taking additional specific formal coursework. See the field of study listings in this Graduate Bulletin titled Ecology-Certificate for more details regarding 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 BIO 601 during the summer term preceding your first fall semester in residence, and complete BIO 660 during your first fall semester in residence.
2. Complete at least 60 hours of graduate work including at least (a) two of BIO 650, 720, or equivalent; (b) one biology graduate (500 or above) course of three credit hours or more (with a "B" or higher) from each of the four core areas in biology; (c) two additional pedagogical biology graduate courses exclusive of BIO 600, 720, and 750; (d) 16 to 60 hours of BIO 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 a certificate in Ecology by taking additional specific formal coursework. See the field of study listings in this Graduate Bulletin titled Ecology-Certificate for more details regarding requirements.

## Business Administration Master of Business Administration

For information, contact:

MBA Program Office, Voice of America Learning Center  
Farmer School of Business (513-895-8876)  
[www.fsb.MiamiOH.edu/mba](http://www.fsb.MiamiOH.edu/mba)

The Full-Time MBA program is currently suspended effective with the 2013/14 school year.

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 and fee (via credit card) can be submitted online; official transcripts should be submitted online with application. A resume, letter of recommendation, and the essay 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: 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)  
ISA 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) M.S., Ph.D.

For information, contact:  
Chair of CMSB Admission Committee  
Department of Biology  
212 Pearson Hall (513-529-3100)  
<http://www.cas.MiamiOH.edu/cmsb/>

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

I. Select one course from two of the three areas listed below (one course must be at the 600 level):

#### Biochemistry:

CHM 532 Fundamentals of Biochemistry (4)

#### Cell Biology:

BIO 571 Molecular Physiology (3)  
BIO/MBI 606 Advanced Cell Biology (3)

#### Molecular Biology:

BIO 544 Molecular Biology (3)  
BIO/MBI 605 Advanced Molecular Biology (3)

#### II. Structural Biology (choose one of these):

BIO 581 Theory of Electron Microscopy (2) **and**  
BIO 582 Scanning Electron Microscopy Laboratory (2)  
BIO 566 Bioinformatics Computing Skills (3) **or**  
BIO 583 Transmission Electron Microscopy Laboratory (3)  
BIO/MBI 524 Advanced Experimental Techniques in Structural and Functional Genomics (4)  
BIO/MBI 585 Bioinformatics Principles (3)  
CHM 760P Protein X-Ray Crystallography (2)  
CHM 770R Biological Magnetic Resonance (2)

#### III. Seminar Requirements:

BIO/CHM/MBI 650 Seminar in Molecular Biology (1) - (One semester for M.S., three semesters for Ph.D.)  
BIO 601 Seminar for Graduate Students (1) **or**  
BIO/CHM/MBI 603 Cell Molecular and Structural Biology First Year Graduate Seminar (1)

Additional course work appropriate to student's area of interest will be determined by student's dissertation/thesis 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 spring semester in the program or a dissertation committee (Ph.D.) by the end of the third semester in the program. These committees must be approved by the CMSB Director 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 BIO/MBI 115/116 laboratories will attend pedagogy training offered by one of the biological sciences departments. The CMSB Director, 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.

## Chemical and Paper Engineering Master of Science in Chemical Engineering

For information, contact:  
Director of Graduate Studies  
Department of Chemical, Paper and Biomedical Engineering  
064 Engineering Building (513-529-0760)  
SEASgrad@MiamiOH.edu  
<http://www.cpe.MiamiOH.edu/masters>

### Introduction

The Master of Science in Chemical Engineering offers research (thesis) and course intensive (non-thesis) options. The mission of the program is to prepare students who wish to either pursue doctoral work in chemical or biomedical engineering or to seek research-related careers in industry. The departmental faculty have active research projects in the areas of solar cells, environmental, paper physics and chemistry, tissue engineering, biomaterials, protein separation and electrochemistry.

### 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, solar cell research laboratory and tissue engineering/biomaterials laboratory. Students also have access to

equipment at the university's Electron Microscopy Facility and Nanotechnology Center.

## 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 chemical engineering from Miami University.

## Combined Bachelor/Master's Program

Undergraduate students may apply to participate in the combined bachelors/master's program. This program allows you to pursue a master's degree in an accelerated manner while pursuing your bachelor's degree. It is a great opportunity to deepen your knowledge and research skills. Please contact the department for more information about the combined program.

## Program Requirements

### Option I - Research Intensive (thesis)

Students are required to take a total of 34 credit hours, of which at least 24 semester hours must comprise of the following course work:  
(this excludes CPB 600 Graduate Seminar and CPB 700 Research for Master's Thesis)

#### Complete the following:

CPB 600 Graduate Seminar (1, maximum 4) for each semester of residence.

#### In addition, all students are required to take:

CPB 700 Thesis Research, for 6 credits

CPB 710 Industrial Practicum (1-12) (may be used with department approval)

#### The departmental regulations require that all students take the following courses:

CPB 611 Transport Phenomena in Engineering (3)

CPB/MME 612 Engineering Analysis (3)

CPB 551 Unit Operations Laboratory II (2)

Courses are freely chosen by the student and advisor, but the chosen program should show some coherence toward a particular area of concentration, namely Bioengineering, Environmental and Paper. Students planning a general program in the department can design their course selection with their advisor.

The student must: (1) complete a total of 34 semester hours with at least 24 semester hours of graduate credit in chemical, paper and biomedical engineering or related courses approved by the department. At least 12 credits must be earned in courses numbered 600 or above; (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.

### Option II - Course Intensive (non-thesis)

Students are required to take a total of 34 credit hours, of which at least 30 semester hours must comprise of the following course work:  
(this excludes: CPB 600 Graduate Seminar, CPB 690 Graduate Research and CPB 710 Industrial Practicum)

#### The departmental regulations require that all students take the following courses:

CPB 611 Transport Phenomena in Engineering (3)

CPB/MME 612 Chemical Engineering Analysis (3)

CPB 551 Unit Operations Laboratory II (2)

All students are required to take CPB 600 Graduate Seminar, for each semester of residence. Courses are freely chosen by the student and advisor, but the chosen program should show some coherence toward a particular area of concentration, namely Bioengineering, Environmental and Paper. Students planning a general program in the department can design their course selection with their advisor.

The student must: (1) complete a total of 34 semester hours with at least 30 semester hours of graduate credit in chemical, paper and biomedical engineering or related courses approved by the department. At least 12 credits must be earned in courses numbered 600 or above; (2) Register for 3 credit hours of CPB 690 Graduate Research or CPB 710 Industrial Practicum and complete a research project under the supervision of a faculty member. The student will write a comprehensive report and make a formal presentation, which will be evaluated by a team of three faculty. This will constitute the final exam for the student.

Chair, Graduate Admission Committee  
Department of Chemistry and Biochemistry  
160 Hughes Laboratories (513-529-2813)  
chemgrad@MiamiOH.edu

<http://chemistry.MiamiOH.edu/>

## Research Areas and Facilities

The department has B.S./M.S., M.S., and Ph.D. programs in analytical chemistry, biochemistry, chemistry education research, inorganic chemistry, organic chemistry, and physical chemistry, as well as in interdisciplinary areas such as biophysical chemistry, molecular biology, structural biology, materials chemistry, and nanotechnology. These programs are well supported by an active staff, excellent teaching and research facilities, and a full range of instrumentation.

The Department of Chemistry & Biochemistry houses a collection of magnetic resonance instrumentation not found at most universities. Among these instruments are an 850 MHz solution NMR spectrometer and a Q-band pulse EPR. Additional information regarding our NMR, EPR, and Mass Spec facilities can be found at <http://chemistry.MiamiOH.edu/resources/instrumentation>.

## Admission Requirements & Application Procedures

### B.S./M.S. Program

This program is only for undergraduates in good standing at Miami University. Students may declare their interest in enrolling in the combined program at any time during their academic career at Miami, but ideally by spring semester of their junior year. Upon earning a minimum of 64 credit hours and having a cumulative GPA of 3.25 or greater, students may apply for admission to the combined program. Students must have passed one semester of (Bio) Physical Chemistry (CHM 451 or CHM 471) and be enrolled in the spring semester (CHM 452 or CHM 472). If the student intends to complete a thesis, the student must have initiated undergraduate research and have support of undergraduate research mentor.

To apply, students must: complete the Graduate School online application and pay the application fee. Be sure to check "combined program." Three letters of recommendation from faculty members must be submitted, including one from the research mentor if the student intends to complete a thesis. The student must also submit a plan of study that details how they will complete the requirements for the degree.

### M.S. and Ph.D. Programs

New students are generally admitted only in the fall semester of the year. Entry into the program requires completion of a bachelor's degree in chemistry or biochemistry or a closely related field from an accredited college or university. Typical coursework includes:

1. Two semesters of general chemistry plus laboratory
2. Two semesters of organic chemistry plus laboratory
3. Two semesters of physical chemistry plus laboratory
4. Two of the following three courses: analytical chemistry, biochemistry, and inorganic chemistry

While a student need not have taken a curriculum approved by the American Chemical Society, the coursework in chemistry, physics, and mathematics should be similar to those of approved programs (e.g., two or more semesters of calculus and calculus-based physics).

The admissions process involves two steps: (1) the Graduate School accepts students into the graduate program and (2) the Department of Chemistry & Biochemistry awards teaching assistantships to students who have been accepted by the Graduate School. To apply to the graduate school, students must:

1. Apply online to the Miami University Graduate School
2. Pay the online application fee

## Chemistry Master of Science, Doctor of Philosophy

For information, contact:

3. Provide names and contact information for three people to write letters of recommendation.
4. Provide transcripts. Applicants may be given provisional acceptance on the basis of unofficial transcripts if they have not yet completed the final year of their current program.
5. Request that ETS send an official report of your general GRE scores (required). The subject GRE Chemistry or Biochemistry score is optional.
6. Request that ETS send an official report of your TOEFL scores if your native language is not English.

### Program Requirements:

The M.S. degree requires a minimum of 30 semester hours and normally can be completed in two years. Students are required to demonstrate competence (through examination or additional coursework) in at least three disciplines of chemistry.

**Thesis Option:** The minimum graded coursework is five (5) graduate courses comprising at least 13 credit hours, with at least two (2) of these hours in courses numbered 600 and above. Students must select an advising committee during year 1 to approve their plan of study, and must hold a conference with that committee at the end of year 1 to discuss their proposed research. Students must write and defend a thesis based on original research conducted during the course of the degree.

**Non-thesis Option:** The degree requires a minimum of 30 semester hours. The minimum graded coursework is eight (8) graduate courses comprising at least 19 credit hours, with at least ten (10) of these hours in courses numbered 600 and above. Students must select an advising committee during year 1 to approve their plan of study, and their proposed topic for advanced study. Students must write and defend a report based on the advanced study conducted during the course of the degree.

The Ph.D. degree requires a minimum of 60 semester hours beyond the master's degree (or its equivalent). Well-prepared students can skip the M.S. and proceed directly toward the Ph.D. degree that typically requires four to five years to complete. Requirements include:

1. Coursework. The minimum graded coursework is seven (7) graduate courses comprising at least 17 credit hours, with at least four (4) of those hours in courses numbered 600 and above. In addition, students must demonstrate proficiency in at least three disciplines of chemistry (analytical, biochemistry, inorganic, organic, or physical) either by successfully passing the ACS Exam in that discipline or by completing a course in that discipline during the first three semesters of the program. Additional courses in the student's designated area of research are required as determined by the student's faculty committee.
2. Seminars. Students are required to enroll in discipline-specific and departmental seminars each semester.
3. Written and Oral Exams. Students must hold a conference at the end of year 1 to discuss their proposed research. Students must pass written, monthly cumulative exams during their second year, and successfully defend an original research proposal by the end of their third year.
4. Original Research. Students must write and defend a dissertation regarding the findings of their research.

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 3.00 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 College 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 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  
164 Upham Hall (513-529-4300)  
[www.MiamiOH.edu/religion](http://www.MiamiOH.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

## 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,

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  
 College of Engineering and Computing  
 205 Benton Hall (513-529-0700)  
 CECgrad@MiamiOH.edu  
<http://www.computation.MiamiOH.edu/masters>

### Introduction

Computational science and engineering is concerned with constructing mathematical models and quantitative analysis techniques to solve scientific and engineering problems. The field typically uses computer simulation and other forms of computation to efficiently solve these problems. 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.

You may select either the research (thesis) or course intensive (non-thesis) option. Requirements include: the computational core, an area of concentration, and a research-based thesis (research option) or a research project (course intensive option). The computational core develops competency in data structures and algorithms, simulation of physical and engineering systems, optimization, high performance computing, and numerical methods. Three concentration areas are offered: Bioinformatics, Mechanical Engineering, and Electrical and Computer Systems. For the thesis and the research project, students work with a faculty advisor on a research problem whose solution requires computation.

### Admission and Application Requirements

New students are generally admitted in the fall semester of the year. Entry into the program requires completion of a bachelor's degree in computer science (for the bioinformatics concentration), mechanical or manufacturing engineering (for the mechanical engineering concentration), or electrical or computer engineering (for the electrical and computer systems concentration), or a closely related field.

Prospective students will be ranked and considered for admission based on the following information:

1. Requirements of the Graduate School, including: undergraduate transcripts, GRE scores, and TOEFL scores (if required)
2. Three letters of recommendation and the applicant's essay describing the purpose of his/her study.

### Combined Bachelor/Master's Program

Undergraduate students may apply to participate in the combined bachelors/master's program. This program allows you to pursue a master's degree in an accelerated manner while pursuing your bachelor's degree. It is a great opportunity to deepen your knowledge and research skills. Please contact the department for more information about the combined program.

### Program Requirements

The degree requires course work in the computational core and 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 complete at least 9-15 credit hours of computational courses.

### Core and concentration requirements

#### Computational Core (9-15 hours)

##### Prerequisite:

Students must demonstrate proficiency in computer programming in one of the following ways: Completed an introductory programming course or pass a proficiency exam in computer programming administered at Miami. Students lacking this background may be required to complete an undergraduate course in computer programming.

Students may enter the program with courses that cover some of the material in the computational core; however, they must complete at least 9-15 credit hours of computational courses.

CSE 609 Scientific Programming (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)  
 CPB/MME 612 Engineering Analysis (3)

#### Complete one of the following concentrations:

##### Bioinformatics Concentration

In consultation with your advisor, select and obtain approval of the required hours of graduate courses in computer science, the sciences, mathematics, or statistics to fulfill the concentration requirements for your selected option.

##### Electrical and Computer Systems Concentration

In consultation with your advisor, select and obtain approval of the required hours of graduate courses in electrical and computer engineering to fulfill the concentration requirements for your selected option.

##### Mechanical Engineering 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)

##### And select from the following to attain the hours requirement:

MME 503 Heat Transfer (3) \*  
 MME 595 Introduction to Applied Nonlinear Dynamics (3)  
 MME 615 Advanced Vibration (3)  
 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)

\* Students who have taken the 400-level of this course or its equivalent must substitute another course.

#### Complete ONE of the following options:

##### Option 1- Research option (thesis)

The research option requires completion of a minimum of 32 credit hours of graduate study and any additional hours needed to satisfy prerequisites. The distribution of hours is dependent on the concentration area and is summarized as follows:

Computational Core (9-12 hours)  
 Concentration (12-15 hours)  
 Research seminars (2 hours)  
 Thesis (6 hours)

##### Option 2 - Course intensive option (non-thesis)

The course intensive option requires the completion of a minimum of 34 credit hours and any additional hours needed to satisfy prerequisites. The distribution of hours is dependent on the concentration area and is summarized as follows:

Computational Core (12-15 hours)  
 Concentration (15-18 hours)  
 Research project (3 hours)  
 Graduate seminars (1 hour)

## Computer Science Master

For information, contact:

Director of Graduate Programs  
 Department of Computer Science and Software Engineering  
 205 Benton Hall (513-529-0340)  
 SEASgrad@MiamiOH.edu  
<http://www.cse.MiamiOH.edu/csmasters>

## Introduction

The Department of Computer Science and Software Engineering offers a master's degree program in computer science to students who hold a bachelor's degree in computer science or a closely related field. Students will complete advanced coursework in computer science, and have the option of pursuing one of three tracks: Academic Track, Industry Track with Research Experience, or the Industry Track. The Academic Track is recommended for students who want grounding in research and intend to pursue doctoral work. In this track you have the opportunity to work closely with a faculty member to complete a research-based thesis. The Industry Track with Research Experience is appropriate for students that want a research experience but expect to enter the computing profession upon graduation. Students in this track have the opportunity to complete an independent research project under the direction of a faculty member. The Industry Track is designed for those students who intended to pursue a career in the computing industry. This track offers additional course work to broaden the student's background. Depending upon the student's background and selected track the degree is expected to require one to two years of study.

## 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. Specifically, successful applicants to our program should have mastered the following undergraduate topics:

- Imperative and/or functional programming
- Object-oriented programming
- Basic algorithms and/or complexity
- Computer organization and architecture
- Concurrent and/or parallel programming
- Software development methods and tools
- Differential and integral calculus
- Probability and statistics
- Discrete mathematics or linear algebra

Successful applicants usually also have:

- Undergraduate GPA: Equivalent of at least 3.00 on a 4.00 scale
- GRE scores: Verbal, 35th percentile or better. Quantitative, 60th percentile or better. Analytical writing, 25th percentile or better.
- TOEFL (when required): 80+ internet-based, 100+ preferred.

Applicants are ranked for admission based on these criteria, recommendation letters, and statement of purpose.

## Combined Bachelor/Master's Program

Undergraduate students may apply to participate in the combined bachelors/master's program. This program allows you to pursue a master's degree in an accelerated manner while pursuing your bachelor's degree. It is a great opportunity to deepen your knowledge and research skills. Please contact the department for more information about the combined program.

## Program Requirements (33 semester hours)

The master's degree curriculum requires the completion of 24 semester hours of major course work. In addition, each student

must select a track, and complete the requirements of that track. 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 computer knowledge. To complete the breadth requirement, satisfy the foundation and breadth requirements shown below. To complete the depth requirement, at least 4 breadth or elective courses must be at the 600 level.

### 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. Also note that if you do not have a course equivalent to CSE 464, Algorithms, you must take CSE 564.

CSE 283 Data Communication and Networks (3) **or**  
 CSE 381 Operating Systems (3)  
 CSE 385 Database Systems (3)  
 CSE 464 Algorithms (3)  
 MTH 231 Elements of Discrete Mathematics (3)

### Required courses (33 credit hours)

#### Breadth Requirement (12 credit hours)

You must pick at least four courses from the areas below (theory, systems, and applications), including at least one from each of the areas. Within each area, particular CSE 620 Special Topics offerings may be used if approved by the Graduate Program Director. The breadth requirement may also be satisfied by completing the 400-level version of a 500-level course with a grade of B or higher.

#### Theory:

Courses that emphasize proofs and theoretical techniques.  
 CSE 564 Algorithms (3)  
 CSE 573 Automata, Formal Languages & Computability (3)  
 CSE 664 Advanced Algorithms (3)  
 CSE 667 Cryptography (3)

#### Systems:

Courses that contain a significant amount of systems-level programming (memory management, concurrency control, assembly language, or similar).  
 CSE 543 High Performance Computing & Parallel Programming (3)  
 CSE 567 Computer and Network Security (3)  
 CSE 574 Compiler Design (3)  
 CSE 617 Advanced Networks (3)

#### Applications:

Courses that include a significant amount of high-level programming, applying computer science techniques to solve problems or build products.  
 CSE 586 Introduction to Artificial Intelligence (3)  
 CSE 618 Graphics for Simulation and Virtual Environments (3)  
 CSE 627 Machine Learning (3)

#### Depth Requirement (12 credit hours)

You must take at least four courses at the 600 level from the list of Major Courses (see below). If you take a 600 level course to meet the breadth requirement, it will also meet the Depth requirement (for 600 level courses) and you will need to take an additional course from the list of Major Courses to meet the credit hour requirement.

#### Major Courses

CSE 543 High Performance Computing & Parallel Programming (3)  
 CSE 564 Algorithms (3)  
 CSE 565 Comparative Programming Languages (3)  
 CSE 567 Computer and Network Security (3)  
 CSE 570 Special Topics (3)  
 CSE 571 Simulation (3)  
 CSE 573 Automata, Formal Languages, and Computability (3)  
 CSE 574 Compiler Design (3)  
 CSE 585 Advanced Database Systems (3)  
 CSE 586 Introduction to Artificial Intelligence (3)  
 CSE 587 Game Design and Implementation (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 664 Advanced Algorithms (3)  
 CSE 667 Cryptography (3)  
 CSE 690 Graduate Research (3)

**Affiliate major courses:** At most 2 of these (6 hours) may be used as major courses

ECE 525 Digital Signal Processing (3)  
 ECE 553 Communication Systems (3)  
 ECE 561 Network Performance Analysis (3)

**Additional Requirement (3 credit hours)**  
 CSE 610 Seminar in Computer Science (3)

**Program Track (6 credit hours)**

You must select, and complete the requirements for, one of the three tracks.

#### Academic Track

This track is for students that wish to learn how to write for and publish in scholarly journals or conferences. This is the recommended track for students that intend to go on to a Ph.D. program in computer science. To complete this track, the student must write and defend a thesis, and take (in addition to the core requirements): CSE 700 Research for Master's Thesis or Project (6).

#### Industry Track with Research Experience

This track is for students that wish to work on a large independent research project supervised by a faculty member, but do not wish to learn scholarly writing and publishing. To complete this track, the student must create and publicly present a research project, and take (in addition to the core requirements): CSE 700 Research for Master's Thesis or Project (6).

#### Industry Track

This track is for students that intend to pursue careers in industry, but wish to focus on more advanced coursework instead of research. Students in this track should take (in addition to all other requirements) two additional courses (6 credit hours) from the "major courses" list, and must have at least five major courses at the 600 level.

## Ecology Certificate

For more information on this interdepartmental program, contact the director of graduate studies in one of the participating departments:

Department of Biology  
 212 Pearson Hall (513-529-3100)  
<http://www.cas.MiamiOH.edu/botany/gradprog/index.html>

Department of Geography  
 216 Shideler Hall (513-529-5010)  
[www.MiamiOH.edu/geography/grad](http://www.MiamiOH.edu/geography/grad)

Department of Geology & Environmental Earth Science  
 114 Shideler Hall (513-529-3216)  
[www.units.MiamiOH.edu/geology/graduate/index.html](http://www.units.MiamiOH.edu/geology/graduate/index.html)

Department of Microbiology  
 32 Pearson Hall (513-529-5422)  
[www.cas.MiamiOH.edu/micro/grad](http://www.cas.MiamiOH.edu/micro/grad)

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:

- one graduate course in population and/or community ecology
- one graduate course in ecosystem and/or global ecology
- one graduate course in the student's home department, not including those used to satisfy A or B above
- one graduate course in statistics or mathematical modeling
- 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. Hank Stevens  
 338 Pearson, Hall  
[hstevens@MiamiOH.edu](mailto:hstevens@MiamiOH.edu)

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 be 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 BIO 720, GEO 620, GLG 710, MBI 750, BIO 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 Biology 720, Geography 620, and Biology 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.MiamiOH.edu/departments/economics/meco](http://www.fsb.MiamiOH.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

(31 semester hours)

#### Concentration in Applied Economics:

ECO 514 Mathematical Microeconomics (4)  
ECO 615 Advanced Microeconomic Theory (3)  
ECO 617 Advanced Macroeconomic Theory (3)  
ECO 663 Econometrics (3)  
ECO 671 Topics in Applied Econometrics (3)  
ECO 672 Applied Time Series Analysis (3)  
ECO 685 Graduate Research Methods (3)

Choose six additional hours from either ECO 640 (3), ECO 650 (3) or any 500-level economics class (3).

#### Thesis Option:

ECO 685 Graduate Research Methods (3) and ECO 690 Independent Study (3) and research paper prepared under the supervision of a graduate faculty member. Students must pass a written, oral, or combined examination on their research paper and related study in economics.

#### Project Option:

ECO 690 (6) and a research project and paper conducted under supervision of a faculty member. Students must pass a written, oral, or combined examination on their project and related study in economics.

#### Concentration in Financial Economics:

ECO 514 Mathematical Microeconomics (4)  
ECO 615 Advanced Microeconomic Theory (3)  
ECO 617 Advanced Macroeconomic Theory (3)  
ECO 663 Econometrics (3)  
ECO 671 Topics in Applied Econometrics (3)  
ECO 672 Applied Time Series Analysis (3)  
FIN 635 Investment Management (3)  
FIN 675 Applied Advanced Corporate Finance (3)

#### Thesis Option:

ECO 685 Graduate Research Methods (3) and ECO 690 Independent Study (3) and research paper prepared under the supervision of a graduate faculty member. Students must pass a written, oral, or combined examination on their research paper and related study in economics.

#### Project option:

ECO 690 (6) and research project and paper conducted under supervision of a faculty member. Students must pass a written, oral, or combined examination on their project 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 Dean's office  
College of Education, Health and Society

207 McGuffey Hall (513-529-6317)  
<http://www.units.MiamiOH.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 College 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.MiamiOH.edu/edt/graduateprograms](http://www.MiamiOH.edu/edt/graduateprograms)

The Department of Teacher Education (EDT) offers both Master of Education (M.Ed.) and Master of Arts in Teaching (M.A.T.) degrees. Some of the graduate programs in EDT lead to teaching or supervisory licensure by the Ohio Department of Education. The Department 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 non-degree study requires Graduate School admission with continuing non-degree graduate standing. Admission to any of the master's degree programs requires:

1. Acceptance by the Graduate School.
2. Program Admission Requirements for EDT:
  - a. Essay

- b. Resume
- c. GRE (\*MAT applicants only)
- d. TOEFL (if English is not your native language)
- e. Two recommendations
- f. Teacher Pre-Screener

For all programs, apply through the Graduate School at [www.MiamiOH.edu/graduate-studies](http://www.MiamiOH.edu/graduate-studies). You will submit an application, application fee, and official transcripts along with the documents required by the department, which are listed above. For further information or questions you may contact the EDT department at [edtgraduateprograms@MiamiOH.edu](mailto:edtgraduateprograms@MiamiOH.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 advisor by the department.

## General Requirements

Following program admission, you will need to develop a plan of study with your advisor's assistance. You **must** file a copy of this plan, approved by your advisor, with the department within two months of admission to the degree program. If a plan of study has not been submitted within the required time, it could result in an inability to complete the degree in a timely manner. 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 a petition through your advisor, 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 advisor to complete the following required components. The defense will be administered by a committee of three faculty selected by you and your advisor, including at least one other member of the Department of Teacher Education. One of your committee members must hold a Level A Graduate status ranking.

## Master of Education Program (M.Ed.)

### M.Ed. in Literacy and Language

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.

#### Program Requirements

##### Foundation & Theory

EDT 603 Language, Literacy and Culture (3)

##### Literacy & Language Instruction - 18 credit hours

EDT 625 Teaching Writing (3)

EDT 626 Literature for Children (3) or

EDT 627 Teaching with Literature for Adolescents and Young Adults (3)

EDT 632 Literacy Assessment and Instruction (3)

EDT 642 Phonics & Reading Improvement (3)

EDT 643 Language and Discourse (3)

EDT 646 Reading & Writing in the Content Area (3)

##### Practicum Experiences

EDT 635 Clinical Literacy Practicum (3)

EDT 636 Literacy & Leadership (3)

##### Electives

Students may choose any 3 hour graduate level course with advisor approval that the elective is relevant to their plan of study in Literacy and Language.

## Reading Endorsement (12\*-15 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 Ohio Assessments for Educators (OAE) Reading subtest #1/038 & subtest #II/039 both with a qualifying score of 220. Such an endorsement enables a teacher to teach reading in grades K-12 in the State of Ohio. Upon passing the tests you need to complete the application to add the Reading endorsement as a second teaching field. The application is at [education.ohio.gov](http://education.ohio.gov).

#### Take all of the following:

EDT 603 Language, Literacy and Culture (3)

EDT 632 Literacy Assessment and Instruction (3)

EDT 635 Clinical Literacy Practicum (3)

EDT 642 Phonics & Reading Improvement (3)

EDT 646 Reading & Writing in the Content Area (3)

\*with Advisor approval of phonics course

## M.Ed. in Transformative Education

Transformative Education is a Master of Education program jointly administered by the Departments of Teacher Education and Educational Leadership. It prepares educators to provide leadership in transforming teaching and learning in schools and communities. The program emphasizes educational sustainability—creating, nurturing, and continuing effective teaching and learning environments—through the inclusion of both a responsiveness to the specific needs and interests of individual educators and a foundation of shared learning (multicultural education, curriculum, leadership, and data-informed decision making). The program blends a core set of courses that encompass important educational issues with a choice of concentrations that provide both conceptual and practical benefits for educators and the students they serve, giving educators the capacity to synthesize research with knowledge of their students to make professional decisions. The program aims to develop educators who are innovative scholar-practitioners, collaborative leaders, and advocates for equity and social justice.

The M.Ed. in Transformative Education is open to both students with existing teaching licensure and those who do not have an existing license. This degree does not lead to initial license to teach.

#### Program Requirements

EDL 601 Educational Leadership Theory (3)

EDL/EDT 606 Curriculum Innovation and Transformation through Understanding and Design (3)

EDL 621 Foundations of Multi-Cultural Education (3)

EDL/EDT 648 Data-Informed Decision Making in Education (3)

#### Concentration:

Students will complete 15 hours of focused electives. Some suggested focus areas include: Curriculum & Cultural Studies; Teaching English Language Learners Endorsement; Assessment and Evaluation Certificate; Reading Endorsement; Social Justice, among others. Note that these programs are currently offered by Miami's College of Education, Health and Society on a regular basis at the VOALC.

#### Culminating Course:

EHS 649 Action Research for Educators (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 Ohio Assessments for Educators (OAE) "Elementary Education" Subtest I/018 & Subtest II/019. 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 Transformative Education 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)

## Middle Childhood Generalist 4-6 Endorsement

This endorsement, including graduate and undergraduate courses, enables candidates who hold an Ohio Middle Childhood license for two content areas to teach additional core subjects in grades 4-6. For example, a teacher licensed in MCE language arts and social studies (Grades 4-9) may add the Generalist Endorsement to also teach (a) mathematics, (b) science, or (c) both mathematics and science for Grades 4-6 only. In addition to the coursework, a passing score on the Ohio Assessments for Educators (OAE) "Elementary Education" Subtest I/018 & Subtest II/019 is also required.

## Master of Arts in Teaching Programs (M.A.T.)

### Adolescent Education (Grades 7-12)

Master of Arts in Teaching (M.A.T.) 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.

### Program Requirements

Requirements consist of (1) general requirements, common to all M.A.T. programs, (2) content course requirements and retention requirements, specific to each licensure area and (3) successful completion of benchmarks established for program accreditation compliance. 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.

### Admission

In addition to admission requirements previously listed for all master's programs within the department, candidates should have a baccalaureate degree.

### 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 2012-13, integrated mathematics 2013-14, and science 2012-13 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 Department of Teacher Education coordinator of advising (513-529-6443). The coordinator will examine your transcript and advise you about your application, estimate time to complete the degree, and cohort year.

### 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 Multi-Cultural Education (3)  
EDP 543 Audiovisual Instruction: Methods, Media, and Technology (3)  
EDP 607 Educational Measurement and Evaluation (3)  
EDP 656 Education of Individuals with Exceptionalities (3)  
EDT 519 Teaching Internship (1-16)

EDT 689 Interpretation & Application of Research in Education (3)  
EDT 690 Graduate Capstone Experience in Education (3)

Three advised courses in the area of emphasis (9)

Electives with advisor approval (12)

A teaching field may be selected from the following adolescent education fields: integrated English/language arts, integrated mathematics; Sciences: chemistry, life science, earth science, physical science, life/science chemistry, life/earth science or earth science/chemistry; and integrated social studies; Foreign language \*(Grades K-12): Chinese, French, German, Latin or Spanish.

## Integrated English/Language Arts program

### Requirements

#### Required Courses:

EDL 621 Foundations of Multi-Cultural Education (3)  
EDP 607 Educational Measurement and Evaluation (3)  
FSW 581 Adolescent Development in Diverse Families (3)  
EDT 521A Classroom Management (2)  
EDT 523 Literature and Other Media for Adolescents (3)  
EDT 527 Adolescent Language Arts I (3)  
EDT 528 Adolescent Language Arts II (3)  
EDT 625 Teaching Writing (3)  
EDT 689 Interpretation and Application of Research in Education (3)  
EDT 690 Graduate Capstone Experience in Education (3)  
EDT 519 Teaching Internship (1-16)

#### One of these:

EDP 601 Advanced Educational Psychology (3)  
EDP 603 Theories of Human Learning (3)

#### One of these:

EDP 540 Practicum in Integrating Technology into Instruction (1)  
EDP 543 Audiovisual Instruction: Methods, Media, and Technology (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)  
COM 135 Introduction to Public Expression and Critical Inquiry (3)

#### One of these:

EDT 246A Foundations of Language and Literacy (3)  
EDT 603 Language, Literacy and Culture (3)  
EDT 346A Reading Instruction for Adolescents (3)

#### Electives in ENG, JRN, COM, THE: (6)

#### One of these:

JRN 101 Introduction to Journalism (3)  
JRN 201 Reporting and News Writing I (3)

#### Two of these:

ENG 223 Strategies for Writers (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)

#### 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)  
ENG 144 Major American Authors (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:

CHI 251 Chinese Literature in English Translation (3)  
CHI 252 Modern Chinese Literature in English Translation (3)  
CLS 121 Introduction to Classical Mythology (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 259 The Modern World Novel (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)  
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)

## 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 GPA of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A GPA of at least 3.00 in all graduate content coursework 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 GPA of at least 3.00
- A GPA of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A GPA of at least 3.00 in all graduate content course-work of your plan of study earned at Miami

Visit the EDT website to see the most current plan of study:  
<http://www.units.MiamiOH.edu/eap/departments/edt/graduatePrograms/MasterofArtsinTeaching.html>.

## 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 Proof: Introduction to Higher 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)

## 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 advisor
- Content course GPA at least 2.50
- Overall GPA 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 advisor
- Content course GPA at least 2.50
- Overall GPA at least 3.00 in all graduate content course-work in your plan of study earned at Miami

Visit the EDT website to see the most current plan of study:  
<http://www.units.MiamiOH.edu/eap/departments/edt/graduatePrograms/MasterofArtsinTeaching.html>.

## Science programs (seven areas)

Subject areas available include chemistry, earth science, earth science/chemistry, life science/chemistry, life science/earth science, life science and physical science.

## Requirements

EDL 621 Foundations of Multi-Cultural Education (3)  
 FSW 581 Adolescent Development in Diverse Families (3)  
 EDT 531 Adolescent Science Methods I (3)  
 EDT 532 Adolescent Science Methods II (3)  
 EDT 521A Classroom Management (3)  
 EDT 546A Integrated Literacy across the Content Areas (3)  
 EDT 689 Interpretation and Application of Research in Education (3)  
 EDT 690 Graduate Capstone Experience in Education (3)  
 EDT 519 Teaching Internship (1-16)

#### Choose One:

EDP 601 Advanced Educational Psychology (3)  
 EDP 603 Theories of Human Learning (3)

#### Choose One:

EDP 607 Educational Measurement and Evaluation (3)  
 EDP 301A Assessment and Evaluation in Educational Settings (3)

#### Choose One:

EDP 656 Education of Individuals with Exceptionalities (3)  
 EDP 256 Psychology of the Exceptional Learner (3)

#### Choose One:

EDP 279 Technology + Media Literacy and Learning (3)  
 EDP 543 Audiovisual Instruction: Methods, Media, and Technology (3)  
 EDP 645 Curriculum and Technology (3)

Visit the EDT website to see the science plans of study:  
<http://www.units.MiamiOH.edu/eap/departments/edt/graduatePrograms/MasterofArtsinTeaching.html>.

For additional information, please contact the Director of Graduate Studies.

## Integrated Social Studies program

### Content Course Requirements

#### (53 hours of social studies content coursework):

ATH 155 Cultures in Context (4)  
 ECO 201 Principles of Microeconomics (3)  
 ECO 202 Principles of Macroeconomics (3)  
 HST 111, 112 Western Civilization I and II (3, 3)  
 GEO 101 Global Forces, Local Diversity (3)  
 POL 241 American Political Systems (4)  
 POL 271 World Politics (4)  
 PSY 111 Introduction to Psychology (4)  
 SOC 151 Social Relations (4)

#### Choose one of the following sequences:

HST121, 122 Western Civilization (3, 3)  
 HST197, 198 World History (3, 3)

Two advanced courses in History (3, 3)

A two-course sequence from one of the following: ATH, ECO, GEO, POL, SOC (3,3)

Two Non-Western courses (3, 3)

#### M.A.T. education course requirements:

EDL 621 Foundations of Multi-Cultural Education (3)  
 EDP 540 Practicum in Integrating Technology into Instruction (1) or  
 EDP 543 Audiovisual Instruction: Methods, Media, and Technology (3)  
 EDP 601 Advanced Educational Psychology (3) or  
 EDP 603 Theories of Human Learning (3)  
 EDP 607 Educational Measurement and Evaluation (3)  
 EDP 656 Education of Individuals with Exceptionalities (3) or  
 EDP 256 Psychology of the Exceptional Learner (3)  
 EDT 519 Teaching Internship (1-16)  
 EDT 521A Classroom Management (2)  
 EDT 533 Adolescent Social Studies I (3)  
 EDT 534 Adolescent Social Studies II (3)  
 EDT 546A Integrating Literacy Across the Content Areas (3)  
 EDT 622 Improvement of Teaching in the Public School (3)  
 EDT 652 History and Philosophy of Social Studies Education (3)  
 EDT 689 Interpretation and Application of Research in Education (3)  
 EDT 690 Graduate Capstone Experience in Education (3)

FSW 581 Adolescent Development in Diverse Families (3)

## 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 GPA of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A GPA 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 GPA of at least 3.00
- Completion of or transfer credit for at least 47 credit hours of content courses in integrated social studies
- A GPA of at least 2.75 in all undergraduate content courses of your plan of study earned at Miami
- A GPA of at least 3.00 in all graduate content course-work of your plan of study earned at Miami

Visit the EDT website to see the most current plan of study:  
<http://www.units.MiamiOH.edu/eap/departments/edt/graduatePrograms/MasterofArtsinTeaching.html>.

## Foreign Language program (five languages) (Grades K-12) M.A.T.

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. \*For students who are fluent in one of these languages (i.e., Chinese, French, German & Spanish) and do not desire a master's degree, there is a licensure only option. See the "Foreign Language – Graduate-Level Licensure-Only Program" described below. 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)

### Language Requirements

Advanced-Low level of proficiency on the Oral Proficiency Interview (OPI) for French, German, & Spanish.  
 Intermediate-High level of proficiency on the Oral Proficiency Interview (OPI) for Chinese.

### Content Course Requirements

If a student has not lived or studied in a country where his/her target language is spoken, then they **must** 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 Pre-Revolutionary Literature and Life (3)  
 FRE 303 Modern and Contemporary Literature and Life (3)  
 FRE 310 Texts in Context (3)

##### One of these (not previously taken):

FRE 302 Pre-Revolutionary Literature and Life (3)  
 FRE 303 Modern and Contemporary Literature and Life (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 German Language through the Media (3)  
 GER 311 Passionate Friendships in German Literature from the Middle Ages to the Present (3)  
 GER 312 Coming of Age in German Life and Thought (3)  
 GER 471 Linguistic Perspectives on Contemporary German (3)

##### 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 advisor if SPN 481 is not offered

## Foreign Language – Graduate-Level Licensure Only Program

The program is designed for those who are interested in becoming World Language K-12 teachers in the state of Ohio. The Licensure Only program is comprised of a set of courses that allows completers to apply for a State of Ohio K-12 World Language teaching license. Upon completion of the program, students will be eligible to apply for an Ohio teaching license.

### General Admission Requirements:

Applicants must meet be admitted to the Graduate School at Miami University as a continuing non-degree candidate (see note below) and the complete the following licensure program admission requirements:

- Hold a Bachelor's degree from an accredited post-secondary institution in the United States or an equivalent Bachelor's university degree.
- Demonstrate language proficiency in both speaking and writing in the language targeted for licensure by successfully completing both the Oral Proficiency Interview (OPI or OPIc computer) and the Writing Proficiency Test (WPT), which are required for licensure by the state of Ohio. The program requires an "Advanced-Low" or higher level of proficiency in both tests for admission into the program. Students seeking admission to the program should take the OPI/OPIc and the WPT three to five weeks prior to applying for the program.
- Applicants who studied in a country or institution where English is not the official language must submit proof of English proficiency. We accept the following tests for admission: TOEFL iBT, IELTS, and PTE.
- International students seeking admission to the program must possess the appropriate visa status. Make an appointment with an International Student Advisor in the Office of International Education to discuss adding this program at <http://www.units.MiamiOH.edu/internationalprograms/about.php>.

### Application Process

- All students must apply and be admitted to Miami University
- If you are a current international student at Miami University, make an appointment with an International Student Advisor in the Office of International Education to discuss adding this program. Domestic students can apply directly to the program if all admission requirements are met.
- If you are not currently a student at Miami University, apply to the Miami University's Graduate School as a continuing non-degree status candidate. Apply online to Miami's Graduate School.

**NOTE:** If you are admitted as a non-degree candidate and later 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.

### Program Requirements:

#### Fall Semester

EDT 544 Language Teaching and Learning I (3) (Cohort class – must take in Fall)  
 CHI/FRE/GER/SPN Content Course (3)  
 CHOOSE AS APPROPRIATE CONTENT ELECTIVE (obtain approval from Advisor).  
 Sample courses for Chinese: ART 311, CHI 253, HST 353, HST 354, HST 383, HST 434, CHI 600  
 CHOOSE AS APPROPRIATE EDUCATION ELECTIVE (obtain approval from Advisor).  
 Sample courses: EDL 318, EDL 621, EDP 601, EDP 656, FSW 581  
 EDP 607 Educational Measurement and Evaluation (3)

#### Spring Semester

EDT 545 Language Teaching and Learning I (3)  
 EDT 546L Reading in the Foreign Language (3)  
 EDT 521A Classroom Management (2)

#### Fall Semester

EDT 519 Teaching Internship (12)

## Educational Leadership Master of Education, M.S., Ph.D.

For information, contact:

Director of Graduate Studies  
 Department of Educational Leadership  
 304 McGuffey Hall (513-529-6825)  
[www.MiamiOH.edu/edl](http://www.MiamiOH.edu/edl)

These programs prepare students for leadership positions in elementary and secondary schools, central office positions in curriculum and instruction and administration, and college teaching positions in leadership, curriculum, administration, and related areas.

A school administration license may be completed to prepare students to become elementary, middle, and/or high school principals, supervisors, curriculum specialists, and professional development specialists.

The department also offers a Graduate Certificate for Professional Development in Family, School, and Community Connections, as well as other professional development experiences for administrators, classroom teachers, and other educators interested in pursuing non-degree graduate study.

## Administrative Specialist Licenses

### Principal

Prerequisite for this license is a master's degree in administration. Course work includes 15 semester hours in administration. This is a comprehensive license which qualifies those who hold it to assume school administration positions with the exception of superintendency.

### 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.

## Graduate Certificate for Professional Development in Family, School, and Community Connections

The Graduate Certificate for Professional Development in Family, School, and Community Connections is intended to provide learners with knowledge about the complex social, political, and cultural dynamics that influence relationships between families, schools, and the broader community. Through an interdisciplinary approach learners will develop and enhance the organizational, analytical, and boundary-spanning capacities that are necessary for effective relational work. This 12-credit hour certificate is appropriate for both active practitioners seeking professional development and individuals who aspire to hold positions that require knowledge of family, schools, and communities.

### Program Requirements:

#### Required Courses (6 hours):

EDL 614 Family-Community-School Partnerships (3)  
 FSW 562 Family Policy and Law (3)

#### Research Course (3 hours):

EDL 648 Data-Informed Decision Making in Education (3)  
 EDP 690 Seminar in Educational Psychology (1-3)

#### Elective Courses (3 hours):

FSW 518 The Family Life Education Process (3)  
 FSW 551 Family Violence (3)  
 FSW 575 Family Theories (3)  
 EDP 578 Consultation and Collaboration in Special Education (3)

## Master of Education Programs

The master's degree in school 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 (GPA), 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 GPA, 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.

### M.Ed. in School Leadership

This program is designed for educators with a minimum of three years of K-12 teaching experience who wish to become school principals or administrators. Courses are offered in a hybrid format—a blend of traditional class sessions and on-line components. The program structure allows teachers to complete their studies in two years of part-time enrollment while continuing to work full time.

#### Program Requirements: (minimum 30 hours)

##### Core:

EDL 601 Educational Leadership Theory (3)  
EDL 607 School Law (3)  
EDL 609 Politics In Education (3)  
EDL 614 Family-Community-School Partnerships (3)  
EDL 645 Supervision of Teaching (3)  
EDL 646 Curriculum Development for Instruction (3)  
EDL 648 Data-Informed Decision Making in Education (3)  
EDL 710 Internship in Educational Leadership (3)  
EDL 721 Pupil Personnel Services (2)  
EDL 723 Public School Finance (3)  
EDL 725 School Staff Personnel Administration (2)  
EDL 630B Applied Studies in Educational Administration: Connecting School Leadership to Standards (2)

##### Electives:

13 hours of elective coursework related to school leadership OR required for state licensure as approved by the advisor.

\*Please note the GRE is waived for students who hold a master's degree applying to School Leadership.

### M.Ed. in Transformative Education

Transformative Education is a Master of Education program intended to prepare educators to provide leadership in transforming teaching and learning in schools and communities. The program emphasizes educational sustainability—creating, nurturing, and continuing effective teaching and learning environments—through the inclusion of both a responsiveness to the specific needs and interests of individual educators and a foundation of shared learning (multicultural education, curriculum, leadership, and data-informed decision making). The program blends a core set of courses that encompass important educational issues with a choice of concentrations that provide both conceptual and practical benefits for educators and the

students they serve, giving educators the capacity to synthesize research with knowledge of their students to make professional decisions. The program aims to develop educators who are innovative scholar-practitioners, collaborative leaders, and advocates for equity and social justice.

#### Program Requirements

EDL 601 Educational Leadership Theory (3)  
EDL/EDT 606 Curriculum Innovation and Transformation through Understanding and Design (3)  
EDL/EDT 648 Data-Informed Decision Making in Education (3)  
EDL 621 Foundations of Multi-Cultural Education (3)

##### Concentration:

Students will complete 15 hours of focused electives. Some suggested focus areas include: Curriculum & Cultural Studies; Teaching English Language Learners Endorsement; Assessment and Evaluation Certificate; Reading Endorsement; among others. Note that these programs are currently offered by Miami's College of Education, Health and Society on a regular basis at the VOALC.

##### Culminating Course:

EHS 649 Action Research for Educators (3)

## Master of Science: Student Affairs in Higher Education

The SAHE master's degree program prepares students for leadership positions in student affairs in higher education. The curriculum includes an 18 credit-hour core that address foundations of student affairs, student development theory, student cultures, foundations of research, educational leadership/organizational development, and diversity, equity and dialogue; a 3 credit-hour additional inquiry requirement; a 9 credit-hour concentration in either student development theory, student affairs leadership, inquiry in education, or diversity, equity and culture; 9 hours of professional development and field experience; and 6 hours of electives.

Admission to the Student Affairs in Higher Education master's degree program is based on undergraduate grade point averages, a personal statement, experiences relevant to student affairs, four letters of recommendation, and an interview.

#### Program Requirements (42 semester hours)

##### Core (All of these):

EDL 654 Foundations of Educational Research in Higher Education (3)  
EDL 666 Student Cultures in the College Environment (3)  
EDL 667 Diversity, Equity, and Dialogue in Student Affairs (3)  
EDL 676 Foundations of Student Affairs in Higher Education (3)  
EDL 677 Student Development Theory I (3)  
EDL 706 Educational Leadership and Organizational Development (3)

##### Concentrations (choose 1; 9 hours)

Student Development Theory  
Student Affairs Leadership  
Diversity, Equity and Culture  
Inquiry in Education

##### Inquiry Courses (choose 1; 3 hours):

EDL 661 Quantitative Research in Higher Education (3)  
EDL 683 Qualitative Research in Education (3)

##### Professional Development and Field Experience (6 hours):

EDL 656 Professional Development and Field Experience in Student Affairs (2 semesters; minimum of 3 hours per semester). A third semester (3 credit hours) of EDL 656 is required as part of the student's concentration. This brings the total EDL 656 hours to nine.

Full-time students enroll in Spring of both their first and second year and Fall of their second year. The students' assistantship counts as the field experience for the final semester enrolled. Part-time students enroll in three semesters (Fall or Spring) over the course of their graduate studies.

During the semester that EDL 656 is part of a concentration (the fall semester of the student's second year for full time students), the student will construct field work that satisfies concentration learning outcomes.

##### Electives (6 hours)



Electives may include, but are not limited to, additional Professional Development and Field Experience hours, independent studies, graduate courses outside of the program, and/or additional SAHE classes outside of the required course load.

## 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. Students must also complete a residency requirement comparable to two semesters of full-time enrollment. The residency requirement does not require students who are employed full-time to take a leave from their employment. 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 full-time student affairs experience.

### Program Requirements:

#### Core Classes - 12 hours

EDL 731 Learning Partnerships & Transformational Learning (3)  
EDL 741 Perspectives on College Learners' Experience (3)  
EDL 745 Perspectives on Higher Education Learning Contexts (3)  
EDL 751 Social & Political Engagement in Higher Education (3)

#### Inquiry Classes - 18 hours

EDL 654 Foundations of Educational Research in Higher Education (3)  
EDL 661 Quantitative Research in Higher Education (3)  
EDL 683 Qualitative Research in Education (3)  
Advanced Seminar in Qualitative or Quantitative Research (3)  
EDL 776 Research/Inquiry Practicum in Student Affairs/Higher Education (6; 3 per term, taken successively)

#### Concentration - minimum 6 hours

A student designs a concentration that satisfies one's own focused learning outcomes. Concentration courses may include, but are not limited to, independent studies, graduate courses outside of the program, and/or additional SAHE classes outside of the required course load.

#### Electives - minimum 9 hours

Electives may include, but are not limited to, independent studies, graduate courses outside of the program, and/or additional SAHE classes outside of the required course load.

## Doctoral Programs (Ph.D., Ed.D.): Educational Leadership

The guiding mission of the Ph.D. program in Educational Leadership is to prepare education scholars attuned to culture-based leadership who are critically aware as well as politically and ethically discerning. The program prepares students for positions of school and district leadership and college teaching positions in educational leadership, curriculum or teacher education. The Ph.D. program includes doctoral core seminars, a preliminary examination, a research sequence, a concentration chosen from elective courses, a comprehensive examination, and dissertation research.

### Program Requirements

(64 semester hours)

#### Required Core Courses:

EDL 761 Introduction to Doctoral Study in Educational Leadership (3)  
EDL 762 Culture and Leadership in Education (3)  
EDL 771 Educational Policy Analysis (3)  
EDL 764 Education and Democratic Society (3)  
EDL 765 Curriculum, Pedagogy and Diversity (3)

#### Preliminary Exam

Typically taken in May of the first or second year after the required core courses are completed.

#### Electives (15 hrs)

Student choose a minimum of 15 hours of electives, including choosing from seven advanced EDL electives created as part of the program revision process. Electives must be approved by advisor, at least 6 hours must be 700 level).

#### Required Research Courses (18 hrs)

EDL 772 Advanced Research Design (3)  
EDL 683 Qualitative Research in Education (3)  
EHS 667 Behavior Statistics (3) or  
EDL 661 Quantitative Research in Higher Education (3) or equivalent  
Two advanced research classes: from across the Division or University  
EDL 775 Theoretical Foundations of Educational Inquiry (3)

#### Residency Enrichment Experience

Typically taken after the Preliminary Examination

#### Comprehensive Exam

(may not be taken until all coursework is completed)

#### Dissertation (16 hrs)

## Educational Psychology Master of Education

For information, contact:

Department Chair  
Department of Educational Psychology  
201 McGuffey (513-529-6621)  
[www.MiamiOH.edu/edp](http://www.MiamiOH.edu/edp)

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).

### Admission Requirements

Admission to the educational psychology master's degree program 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.

To apply for the Master of Education, Educational Psychology degree program, go to the graduate school application portal found on the graduate school page via the link below <http://miamioh.edu/graduate-studies/admission/index.html>.

Complete the application, then upload the required program materials listed here. Once you are admitted, you will be required to mail an official transcript to the graduate school at:

Graduate School  
Miami University  
501 E. High Street  
Room 102 Roubush Hall  
Oxford, OH 45056

### Program Requirements

This program requires 30 semester hours (15 hours in core requirements and 15 hours in electives). A culminating research project is completed with each option.

#### 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) **or**  
EDP 620 Research Project (1-3)  
EHS 667 Behavioral Statistics I (3)

##### One of the following: (3 hours)

EDL 621 Foundations of Multi-Cultural 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 562 Family Policy and Law (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. Planned with your advisor.

#### Psychological Focus

The psychological focus includes two options: a human development, learning, and family studies option and a general option.

#### Human Development, Learning, and Family Studies Option of the Psychological Focus

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).

##### All of the following:

EDP 603 Theories of Human Learning (3) **or**  
FSW/GTY 566 Later Life Families (3)  
EDP 635 Theories of Human Development (3)  
FSW 595 Advanced Survey of Family Science (3)

##### Six credit hours of the following:

EDL 614 Family-Community-School Partnerships (3)  
EDP 621 Classroom Group Behavior (3)  
EDP 662 Social, Emotional, and Behavioral Assessment (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 593 Qualitative Methods in Family Research (3)  
FSW 660 Family Diversity in the United States (3)  
FSW 681 Parenting Theories and Applications (3)

#### General Option of the Psychological Focus

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 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)  
EHS 668 Behavior Statistics II (3)  
Planned with your advisor

### 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)

### Graduate Certificate for Professional Development: Applied Statistics and Data Analysis in Social Science

The Applied Statistics and Data Analysis in Social Science Certificate is intended to provide knowledge in statistics and practical skills to conduct both simple and sophisticated statistical analyses in the fields of social sciences and business. Students will be able to identify and utilize appropriate statistical procedures for problems in social sciences and business, and to correctly interpret and report the findings from the results of the statistical analyses.

##### These of these courses: (9 hours)

EHS 667 Behavior Statistics (3) **or**  
EHS 668 Behavior Statistics II (3)  
EDP 688 SPSS Series I (3)  
EDP 689 SPSS Series II (3)

## Instructional Design and Technology Master of Arts, Master of Education

For information, contact:

Department Chair  
Department of Educational Psychology  
201 McGuffey (513-529-6621)  
[www.MiamiOH.edu/edp](http://www.MiamiOH.edu/edp)

### Educational Technology: Master of Education

The Miami University online graduate program in Educational Technology (M.Ed.) is intended to prepare K12 teachers (with licensure) in the design, development and meaningful integration of technology and media to enhance learning. This online program provides a curriculum designed to

foster teacher development in the process of designing and integrating technology and digital media for valued added learning. This program is designed to support both novice and advanced users of technology with a focus on promoting the individual needs of each teacher and supporting each teachers practice. This program consists of 10 courses and may be completed in 12-14 months for full-time students. Part-time students are also very welcome. Students completing the program will also earn the Educational Technology Coaching Endorsement.

### Admission Requirements

Admission to the master's degree program 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. Candidates for this position 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).

To apply for the Master of Education, Educational Technology degree program, go to the graduate school application portal found on the graduate school page via the link below <http://miamioh.edu/graduate-studies/admission/index.html>. Complete the application, then upload the required program materials listed here. Once you are admitted, you will be required to mail an official transcript to the graduate school at:

Graduate School  
Miami University  
501 E. High Street  
Room 102 Roudebush Hall  
Oxford, OH 45056

Applications accepted any time, however, recommended due dates are as follows:

- December 1 (Spring Admission)
- April 1 (Summer Admission)
- July 1 (Fall Admission)

### Program Requirements: Master of Education

The Master of Education (M.Ed.) option requires a minimum of 30 credit hours (including the 6 educational technology coaching endorsement courses and 1 thesis project course). All courses are offered online.

(\* Educational Technology Coaching Endorsement Courses)

#### **All of the following:**

EDP 631 Introduction to Instructional Design & Technology (3) \*  
EDP 632 Instructional Design Theories and Models (3) \*  
EDP 633 Evaluation and Assessment for Instructional Design (3) \*  
EDP 636 Diversity, Learning & Technology (3) \*  
EDP 643 Interactive Design (3) \*  
EDP 645 Curriculum and Technology (3) \*  
EDP 638 Computer Networks for Education and Training (3)  
EDP 641 Principles of Visual Literacy (3)  
EDP 644 Foundations in 3D Design and Technology (3)  
EDP 648 Project Thesis (3)

## Instructional Design & Technology: Master of Arts

The Miami University online graduate program in Instructional Design and Technology is designed to prepare and foster practitioners in the field of instructional design and technology and educational media for various settings including business, industry, higher education, government, military, and health care. The curriculum allows students to develop foundation knowledge in the process of instructional design and the application of that knowledge with various technology tools and educational media. Students who are interested in working as instructional designers for non-P-12 environments such as higher education, industry, government, military and health care should

pursue the Masters of Instructional Design (M.A.). Several courses are designed to prepare instructional designers for various settings which may require more specialized media and technology skills.

### Admission Requirements

Admission to the master's degree program 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. Candidates for this position 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).

To apply for the Master of Education, Educational Technology degree program, go to the graduate school application portal found on the graduate school page via the link below <http://miamioh.edu/graduate-studies/admission/index.html>. Complete the application, then upload the required program materials listed here. Once you are admitted, you will be required to mail an official transcript to the graduate school at:

Graduate School  
Miami University  
501 E. High Street  
Room 102 Roudebush Hall  
Oxford, OH 45056

Applications accepted any time, however, recommended due dates are as follows:

- December 1 (Spring Admission)
- April 1 (Summer Admission)
- July 1 (Fall Admission)

### Program Requirements: Master of Arts

The Master of Arts (MA) option requires a minimum of 30 credit hours (including: 8 required courses, 1 elective and 1 thesis project course). All courses are offered online.

#### Instructional Design Core Courses

##### **All of the following:**

EDP 583 Serious and Educational Game Design and Simulations (3)  
EDP 631 Introduction to Instructional Design & Technology (3)  
EDP 632 Instructional Design Theories and Models (3)  
EDP 633 Evaluation and Assessment for Instructional Design (3)  
EDP 637 Distance Learning (3)  
EDP 639 Issues and Trends in Instructional Design and Technology (3)  
EDP 643 Interactive Design (3)  
EDP 648 Project Thesis (3)

#### Electives

##### **One of these:**

EDP 636 Diversity, Learning & Technology (3)  
EDP 641 Principles of Visual Literacy (3)  
EDP 642 Video Production for Education & Training (3)  
EDP 647 Internship in Instructional Design & Technology (3)

### Endorsement: Educational Technology Coaching Endorsement

The Educational Technology Coaching Endorsement is a 6 course online graduate sequence of courses designed to prepare K-12 teachers to foster teacher coaches and facilitators in leveraging the power of technology and media to engage students in meaningful learning. This six course endorsement is designed to foster teacher-coaches to guide and support students and colleagues in the integration of technology and media for digital age teaching and learning.

#### **All of these: (18 hours)**

EDP 631 Introduction to Instructional Design & Technology (3)  
EDP 632 Instructional Design Theories and Models (3)  
EDP 633 Evaluation and Assessment for Instructional Design (3)  
EDP 636 Diversity, Learning & Technology (3)  
EDP 643 Interactive Design (3)  
EDP 645 Curriculum and Technology (3)

## Graduate Certificate for Professional Development: Instructional Design & Educational Technology

The Graduate Certificate for Instructional Design & Educational Technology intended to provide K12 and Instructional Designers with core knowledge about the processes involved in the design, development and integration of technology-based instructional media, methods and systems. This certificate will provide foundational knowledge about the instructional design process by integrating research from behavioral psychology, cognitive psychology, learning theories, arts-based and critical/cultural theoretical perspectives of teaching and learning. Through the sequence of courses, learners will integrate the theoretical foundations within the methods of design, integration, and formative and summative evaluation. This certificate is appropriate for both active K12 practitioners seeking professional development and individuals who aspire to hold positions that require knowledge of instructional design for education and training.

### Required courses: (9 hours)

EDP 631 Introduction to Instructional Design & Technology (3)  
EDP 632 Instructional Design Theories and Models (3)  
EDP 633 Evaluation and Assessment for Instructional Design (3)

### Elective courses: (select 1)

EDP 583 Serious and Educational Game Design and Simulations (3)  
EDL 625 Social Foundations of Education (3)  
EDP 636 Diversity, Learning & Technology (3)  
EDP 637 Distance Learning (3)  
EDP 639 Issues and Trends in Instructional Design and Technology (3)  
EDP 643 Interactive Design (3)  
EDP 645 Curriculum and Technology (3)

## Special Education Master of Education

For information contact:  
Department Chair  
Department of Educational Psychology  
201 McGuffey (513-529-2767)  
[www.SEOH.MiamiOH.edu](http://www.SEOH.MiamiOH.edu)

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. The degree program is offered online and in a hybrid format.

### Admission Requirements

Admission to the master's degree program requires: (1) acceptance by the Graduate School, (2) official transcripts, (3) three letters of recommendation from professional contacts, specifically addressing your potential for advanced graduate study, and (4) a brief essay (500-750 words) addressing your reasons for pursuing a career in special education.

To apply for the Master of Education, Educational Technology degree program, go to the graduate school application portal found on the graduate school page via the link below <http://miamioh.edu/graduate-studies/admission/index.html>. Complete the application, then upload the required program materials listed here. Once you are admitted, you will be required to mail an official transcript to the graduate school at:

Graduate School  
Miami University  
501 E. High Street  
Room 102 Roudebush Hall  
Oxford, OH 45056

The application deadline for fall term admission is **June 15** for international applicants, and **August 1** for domestic applicants.

## 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 656 Education of Individuals with Exceptionalities (3)  
EHS 667 Behavioral Statistics (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

For information, contact:  
Department Chair  
Department of Educational Psychology  
201 McGuffey (513-529-6621)  
[www.MiamiOH.edu/edp](http://www.MiamiOH.edu/edp)

### 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.

### Admission Requirements

Admission to the school psychology specialist program requires: (1) acceptance by the Graduate School, (2) acceptable scores on the verbal, analytical 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).

To apply for the Master of Science, Specialist in Education degree program, go to the Graduate School application portal found on the graduate school page via the link below <http://miamioh.edu/graduate-studies/admission/index.html>. Complete the application, then upload the required program materials listed here. Once you are admitted, you will be required to mail an official transcript to the Graduate School at:

Graduate School  
Miami University

501 E. High Street  
Room 102 Roubush Hall  
Oxford, OH 45056

The deadline for admission to the school psychology program is January 15.

### Program Requirements

#### Foundation component (34 semester hours)

EDP 556 Advanced Seminar in Evaluation with Evidence-Based Interventions (3)  
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 652 Educational Research Practicum (3)  
EDP 656 Education of Individuals with Exceptionalities (3)  
EDP 662 Social, Emotional, and Behavioral Assessment (3)  
EDP 695 Supervised Public School Experience for School Psychology Students (1)  
EHS 667 Behavioral Statistics (3)

#### Professional practice component (54 semester hours)

EDP 612 Psychoeducational Assessment and Interventions II (5)  
EDP 650 Seminar in Special Education (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 672 Counseling Theories & Mental Health Intervention (3)  
EDP 695 Supervised Public School Experience for School Psychology Students (1)  
EDP 795 Internship (7)  
EDP 796 Internship (7)  
EDP 800 Research Project I, II (Thesis) (6, 2, 2)

## 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.MiamiOH.edu/english/graduate](http://www.MiamiOH.edu/english/graduate)

### Admission Requirements

Admission to the Master of Arts program 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 the completion of the Master of Arts in Teaching English application, a professional resume, the completion of a recommendation form by a school official, 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

General program requirements include reading proficiency in a language other than English before the final examination, either tested by examination or confirmed by two years of credit in college level language courses. Students whose native language is other than English are exempt from the language requirement. Graduate assistants teaching in the college composition program must also take ENG 731 Theory and Practice of Teaching

Composition (4) as well as 2 teaching workshops, ENG 606, Teaching College Composition Practicum I (2), and ENG 607, Teaching College Composition Practicum II (2). Other requirements follow:

*M.A. with literature concentration (thesis option):* 36 semester hours, including ENG 603 and 605, 16 hours of departmental distribution requirements; eight seminar hours of elective literature; six credit hours for writing the thesis; final oral examination.

*M.A. with literature concentration (without thesis):* 36 semester hours, including ENG 603 and 605; 16 hours of department distribution requirements; eight elective literature seminar hours; final written and oral examination.

*M.A. with creative writing concentration:* 40 semester hours, including four workshops in fiction or poetry; ENG 605 and 652; three literature seminars; examination on standard reading list; six credit hours for writing the creative thesis; final oral defense.

*M.A. with composition and rhetoric concentration:* 36 semester hours, including 16 hours of core courses in composition and rhetoric; 12 elective hours in ENG; ENG 605; six credit hours for writing the thesis; final oral examination.

### Requirements: Master of Arts in Teaching

This program requires 32 semester hours including the four-week Ohio Writing Project, 15 hours of electives in writing and reading courses, 11 hours in research courses, and a final research based teacher research project, paper, and presentation.

### Requirements: Doctor of Philosophy

Concentrations are offered in composition and rhetoric, and in American and English literature.

Composition and rhetoric: Program requirements include ENG 603 and 605; six seminars in composition and rhetoric, including four foundation courses; two open elective seminars in ENG.

American and English literature: Program requirements include ENG 603 and 605; eight seminars, including one in ENG 750. Fulfillment of the departmental historical distribution requirement is expected.

For both concentrations, course of study must be approved by the Graduate Committee. The language requirement is met by (1) reading proficiency in two languages other than English, or (2) 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.

Graduate assistants and teaching associates teaching in the college composition program must take ENG 731 Theory and Practice of Teaching Composition (4) as well as 2 teaching workshops, ENG 606, Teaching College Composition Practicum I (2), and ENG 607, Teaching College Composition Practicum II (2).

## Environmental Sciences Master of Environmental Science

For information, contact:  
Director of Graduate Studies  
Institute for the Environment and Sustainability (IES)  
254 Upham Hall (513-529-5811)  
[www.MiamiOH.edu/ies](http://www.MiamiOH.edu/ies)

### Program and Support Facilities

Faculty, staff, and students are involved in professional service projects, internships, practica, and research, including agricultural ecology, GIS and resource analysis, conservation

biology, sustainability, land use issues, pollution prevention, watershed management, water quality, stream and wetland restoration, and conflict resolution of environmental problems.

Facilities include dedicated rooms for graduate-student team projects for external clients (professional service projects), GPS and field equipment, a weather station at the Ecology Research Center, and instrumentation for the analysis of water quality in the Center for Aquatic and Watershed Sciences.

## 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

1. Satisfactory completion of 42 semester hours including: 21 hours in core courses, minimum of 15 hours in a concentration, a minimum of 6 hours of interdisciplinary professional experience or research leading to an internship, practicum, or thesis.
2. Pass an oral comprehensive examination at the end of the first year of the program.
3. Satisfactory completion and defense of an internship, practicum or thesis.

## French Master of Arts

For information, contact:  
Director of Graduate Studies  
Department of French and Italian  
207 Irvin Hall (513-529-7508)  
[www.MiamiOH.edu/frenchitalian](http://www.MiamiOH.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. 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. 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 semester, they also enroll in the Teaching Workshop (FRE 691). 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 at least once in the Dijon credit workshop, contingent on budgetary approval. There, students make take graduate seminars, or enroll in 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. 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.MiamiOH.edu/geography](http://www.MiamiOH.edu/geography)

The M.A. in Geography is a small program with 12-15 students in residence each year. With 14 permanent faculty, the student to faculty ratio of around 1 to 1 provides students with excellent access to faculty. Graduate faculty are strongly committed to teaching, advising, and research collaboration with graduate students.

## 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 & Environmental Earth Science  
114 Shideler Hall (513-529-3216)  
[www.MiamiOH.edu/geology](http://www.MiamiOH.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 luminescence. 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 15 hours of course work in geology. 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, Master of Population and Social Gerontology, Doctor of Philosophy, Certificate

For information, contact:  
Director of Graduate Studies  
Scripps Gerontology Center  
396 Upham Hall (513-529-2914)  
[www.scripps.MiamiOH.edu](http://www.scripps.MiamiOH.edu)

The MGS, MPSG 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, (3) a personal statement indicating past academic and/or professional experiences, future career goals, and reasons for interest in gerontology, and (4) a resume or CV.

### 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 609 Qualitative Research Methods (3)  
GTY 611 Linking Research and Practice (3)  
GTY 641 Organizations and the Aging Enterprise (3)  
GTY 667 Policy and Politics of Aging (3)  
GTY 700 Critical Inquiry in Gerontology (1-6; 6 minimum)  
GTY 708 Quantitative Methods and Statistics (4)  
GTY 740 Graduate Practicum in Gerontology (1-12; 8 minimum)

#### Choice of electives:

GTY/SOC/WGS 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 The Psychology of Aging in Everyday Life (3)  
GTY 615 Readings in Gerontology (1-6)  
GTY 620 Supervised Research (1-12)  
GTY 684 Global Aging (3)  
GTY 686 Global Health and Health Care Systems (3)  
KNH 571 Sport, Leisure, and Aging (3)  
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)  
STA 671 Environmental Statistics (3)

## Master of Population and Social Gerontology

### Admission Requirements

Students must hold a Bachelor's degree in any field with an overall GPA of 2.75 or higher, or its equivalent. Applicants must submit: (1) a minimum of two recommendation letters evaluating the student's academic capability, potential for success in graduate studies, and professional promise, (2) a personal statement indicating past academic and/or professional experiences, future career goals, and reasons for interest in population and social gerontology, and (3) a writing sample.

### Program Requirements:

Miami University and Mahidol University (Bangkok, Thailand) combine their specializations in social gerontology and demography to produce scholars who can meet the increasing demands of globalization and population aging. The Miami University and Mahidol University International Joint Master's Degree in Population and Social Gerontology is a fully integrated program that prepares students for careers in state, national, and international organizations that focus on policy, planning, and analysis of service systems for aging populations. Core courses are offered through the Department of Sociology and Gerontology at Miami University and through the Institute for Population and Social Research (IPSR) at Mahidol University. Applicants who are citizens of North America or EU-member nations should apply to Miami University. Applicants who are citizens of Asia and the Pacific Region, Africa, Central/South America and elsewhere should apply to Mahidol University.

The program requires 45 credit hours, including course work, a practicum in the field of aging, and a critical inquiry paper or thesis. The program requires two full academic years of study; one full year at each university gives students in-depth exposure to different ways of thinking about age and aging, and allows

students to collaborate in generating cross cultural knowledge and solutions relevant to a range of issues in the field of aging.

## Master's Degree Program Requirements

(45 credit hours)

(Year 1 at Miami University):

### All of these:

GTY 602 Perspectives in Gerontology (3)  
 GTY 605 Gerontology Proseminar A and B (1 each)  
 GTY 608 The Logic of Inquiry (4)  
 GTY 667 Policy and Politics of Aging (3)  
 GTY 684 Global Aging (3)  
 GTY 740 Graduate Practicum in Gerontology (5-10; minimum 5 if completed at Miami University)

### Choice of electives (must select two):

GTY/SOC/WGS 563 Gender and Aging (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 611 Linking Research and Practice (3)  
 GTY 686 Global Health and Health Care Systems (3)  
 GTY 745 Sociology of Aging (3)

(Year 2 at Mahidol University):

### All of these:

Substantive Demography (3)  
 Techniques of Demographic Analysis (3)  
 Cross-Cultural Context of Programs in Aging (3)  
 Statistics for Social Analysis (3)

### Electives (optional):

Behavioral and Social Dimensions of AIDS (3)  
 Reproductive Health: Perspectives and Issues (3)  
 Economics of Aging (3)  
 Social Research Methodology (3)  
 Seminar in Population and Social Gerontology (3)  
 Monitoring and Evaluating Social and Health Programs in Gerontology (3)  
 Thesis or Critical Inquiry (Summer after Year 2) (12)

## 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 include those who have earned a bachelor's degree and those who have earned or are in the process of completing 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 (34 semester hours). Students are accepted into the doctoral program from a range of disciplines. For students who enter with a master's degree from a discipline other than gerontology, the faculty will determine which MGS core courses must be taken as part of their doctoral studies.

### 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 709 Advanced Qualitative Research (4) or  
 GTY 750 Special Topics in Advanced Quantitative Methodology in Aging Research (1-4; maximum 20)  
 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 715 Readings in Gerontology (1-6)  
 GTY 720 Individual Investigation (1-6; maximum 6)  
 GTY 747 Demography and Epidemiology of Aging (3)  
 GTY 767 Policy Analysis in an Aging Society (3)

## Certificate Program

### Admission Requirements

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/WGS 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 of Aging in Everyday Life (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 667 Policy and Politics of Aging (3)  
 GTY 676 Program Management in Aging (3)  
 KNH 571 Sport, Leisure, and Aging (3)  
 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

200 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

Undergraduate students may apply to participate in the combined bachelors/master's program. This program allows you to pursue a master's degree in an accelerated manner while pursuing your bachelor's degree. Students develop expertise in historical thinking, historical research, historical sub-fields, and writing and teaching history. Please contact the department for more information about the combined program.

### Master of Arts

You must have an undergraduate GPA 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

Thirty-six semester hours are required, with an additional two for those pursuing the thesis option. The basic curriculum includes: HST 601 Historical Methods (3), HST 602 History and Theories (3), HST 603 Research Seminar (3), four HST 670 Colloquia in History (12), HST 677 Independent Study (3), and one graduate course from another department (3).

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. To prepare for the thesis or project, the student takes a Prospectus Preparation course in the first year (1), and a Thesis Preparation course in the second year (1). 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 student completes course work.

Language requirements for M.A. students are determined by their faculty advisor; 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 advisor's approval and may count as an "outside the department" colloquium for the M.A. degree.

Graduate assistants are required to enroll in HST 645 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; not all courses listed below are currently offered)**

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.

## Interactive Media Studies Certificate

For more information, contact:  
Director of Graduate Studies  
Department of Interactive Media Studies

This graduate certificate program in Interactive Media Studies is designed for graduate students and working professionals who wish to gain knowledge about and develop management and

leadership skills in developing digital media for social and organizational applications — for business, educational institutions, government, and community organizations and nonprofits. The program emphasizes multidisciplinary thinking, organizational problem solving, research and inquiry, creative production and design, and communication skills. The program will foster the student's ability to think creatively, imaginatively, and practically about how interactive media can be deployed to address society's needs as well as client's needs and to design appropriate solutions and provide entrepreneurial leadership to move teams and organizations to action and implementation. Students will learn basic principles of digital design. They will study and synthesize others' research and conduct their own research projects on interactive media. They will learn to critique, test, and evaluate existing designs. They will learn best practices and principles for interactive design. The program will have a particularly strong emphasis on doing, creating, making, researching, and working within and for real clients and organizations. Students will engage in real-world, client-based projects in nearly every course and will conclude their program with an extended client-based practicum designed to provide them with hands-on experience designing digital media for a real client.

This program is designed to be completed in one year or less of half-time student enrollment. Graduate courses will typically be offered in the evenings to suit student work schedules. Some courses may be offered on the VOA campus. Online and hybrid versions of some classes will be available eventually for students who wish to enroll from distant locations.

### Program Requirements:

#### Required Foundation Course (3-4 credit hours):

IMS/ENG 507 Interactive Business Communication (3)  
IMS 510 Digital Development Methods: Theory and Practice (4)  
IMS 518 Social Media Marketing and Online Community Management (3)  
IMS/MKT 519 Digital Branding (3)  
IMS 522 Advanced Web Design (3)

#### Electives:

#### Select three from the following not used above (minimum of 9 credit hours):

IMS/ENG 507 Interactive Business Communication (3)  
IMS 510 Digital Development Methods: Theory and Practice (4)  
IMS 511 Visual Rhetoric (3)  
IMS 514 Web and Social Media Analytics (3)  
IMS 518 Social Media Marketing and Online Community Management (3)  
IMS/MKT 519 Digital Branding (3)  
IMS 522 Advanced Web Design (3)  
IMS 561 Advanced 3D Visualization and Simulation (3)  
IMS 587 Game Prototyping, Pipeline and Production (3)  
IMS 590 Advanced Topics in Interactive Media Studies (3)  
IMS 677 Independent Studies (3)  
ENG 760 Special Topics in Rhetoric (4)  
MKT 632 Information Network Marketing (3)

#### Required Practicum:

Students should take the practicum in their last semester of program work, or near the end of their program.  
IMS 540 Interactive Media Studies Practicum (4)

## Kinesiology and Health Master of Science in Kinesiology and Health

For information, contact:  
Director of Graduate Studies  
Department of Kinesiology and Health  
106 Phillips Hall (513-529-2700)  
[www.MiamiOH.edu/knh](http://www.MiamiOH.edu/knh)

### Admission Requirements

Undergraduate preparation typically includes coursework in exercise science, psychology, sociology, cultural studies, women's, gender and sexuality studies, zoology, chemistry, health, and related areas.

## 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 Kinesiology and Health M.S. degree program, students may choose concentrations in kinesiology, health promotion, or sport leadership. Required courses and typical electives are listed and must be approved by your advisor.

Students must complete all KNH requirements for the M.S. in Kinesiology and Health, including a minimum of 36 credits, KNH 621 Research Foundations, area of concentration coursework, capstone experience, and successful completion of a final certifying examination. The exact program of study is specified in an individual program plan approved by the student's guidance committee. Required coursework for this area of concentration is listed below

## Exercise and Health Science Concentration

The graduate program in kinesiology 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 Research Foundations in Kinesiology and Health (3)  
KNH 682 Laboratory Techniques in Exercise Science (2)  
KNH 684 Advanced Seminar in Exercise Science (1)  
EHS 667 Behavioral Statistics (3) **or**  
EHS 668 Behavior Statistics II (3) **or**  
another course suited to your analytical perspective

### Exercise and Health Science Core Courses (choose four 600 level courses)

KNH 654 Physical Activity Motivation (3)  
KNH 668 Advanced Physiology and Biophysics of Human Activity (4)  
KNH 681 Human Motor Control and Learning (4)  
KNH 688 Advanced Biomechanics (3)

### Thesis option

#### As part of the 36 required hours, take the following:

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. Coursework prepares students as program planners and coordinators of health promotion programs in community, worksite, clinical, and educational settings.

### Required courses

KNH 621 Research Foundations in Kinesiology and Health (3)  
EHS 667 Behavioral Statistics (3) **or**  
EHS 668 Behavior Statistics II (3) **or**  
another course suited to your analytical perspective

### Health Promotion Core Courses (take all)

KNH 562 Health Promotion, Planning and Evaluation (3)  
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)

## Health-Related Electives (take 12 hours)

### Thesis option

As part of the 36 required hours, take the following two courses:  
KNH 700 Thesis Preparation (1-10; 4 required; 10 towards any degree)

## Sport Leadership Concentration

This Master's program is focused on the study of leadership in sport, with supporting interdisciplinary knowledge in kinesiology, health, and related cognate areas. Students gain the knowledge and skills needed to become competent, transformative leaders in the fields of sport and education. The program prepares students for leadership roles in higher education, coaching, athletic administration, student-athlete development, and consulting through required coursework, independent experiences in research, teaching, consulting, coaching, and administrative internships.

### Required courses

KNH 621 Research Foundations in Kinesiology and Health (3)  
EHS 667 Behavioral Statistics (3) **or**  
EHS 668 Behavior Statistics II (3) **or**  
another course suited to your analytical perspective

### Sport Leadership Core (take four)

KNH 632 Psychological Foundations of Sport (3)  
KNH 633 Psychological Interventions in Sport (3)  
KNH 634 Social Psychology of Sport and Exercise (3)  
KNH 673 Developmental Perspectives on Youth Sport Participation (3)  
KNH 676 Cultural Studies of Sport (3)  
KNH 681 Human Motor Control and Learning (4)

### Thesis option

#### As part of the 36 required hours, take the following:

KNH 700 Thesis Preparation (1-10; 4 required; 10 towards any 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://www.cas.MiamiOH.edu/math/>

## Admission Requirements

An undergraduate major in mathematics 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 641 Functions of a Real Variable (4)

### Two of these, including at least one of MTH 651 and 691:

MTH 622 Abstract Algebra II (3)  
MTH 632 Advanced Optimization (3)  
MTH 638 Advanced Graph Theory (3)  
MTH 651 Functions of a Complex Variable (4)  
MTH 691 Topology (4)

Up to 6 of the 32 hours may come from outside mathematics, with the approval of the graduate committee.

**Thesis is optional.**

## Requirements: Master of Science Option I (32 semester hours)

### Required courses

MTH 621 Abstract Algebra I (4)

### One of these:

MTH 641 Functions of a Real Variable (4)  
MTH 651 Functions of a Complex Variable (4)

MTH 691 Topology (4)

**One of these:**

MTH 632 Advanced Optimization (3)  
MTH 638 Advanced Graph Theory (3)

Up to 6 of the 32 hours may come from outside mathematics, with the approval of the graduate committee.

15 of the 32 semester hours must be 600-level MTH courses. No thesis required.

**Option II Applied Option**  
(32 semester hours)

**Both of these:**

MTH 532 Optimization (3)  
MTH 538 Theory and Applications of Graphs (3)

**Two of these:**

MTH 535 Mathematical Modeling Seminar (3)  
MTH 536 Combinatorial Designs and Coding Theory (3)  
MTH 539 Combinatorics (3)  
MTH 553 Numerical Analysis (3)  
MTH 595 Introduction to Applied Nonlinear Dynamics (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)

The program must include 15 hours at 600 level in MTH or STA, with at least 9 hours in MTH. 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., Certificate in Ecology

For information, contact:  
Director of Graduate Studies  
Department of Microbiology  
32 Pearson Hall (513-529-5422)  
[microbiology.MiamiOH.edu](mailto:microbiology.MiamiOH.edu)

## 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 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.MiamiOH.edu/graduate/programs/bio.cfm> or visit the Biological Sciences field of study in this Bulletin.

## Requirements: Master of Science

(30 semester hours)

The Master of Science in Microbiology requires a minimum of 30 semester hours in graduate credits.

### Thesis Option:

Upon graduation, M.S. students pursuing the thesis option will have fulfilled the following requirements:

- Completed four courses chosen from groups I-III below, representing each group.
- Completed additional courses in groups I-IV below and/or Research for Master's Thesis (MBI 700) as deemed appropriate by the advisor and thesis committee.
- Enrolled in Graduate Seminar (MBI 690) each semester.
- Passed an oral defense of a thesis proposal, approved by a thesis committee of graduate faculty.
- Conducted a research project approved by the thesis committee and present the project as a written dissertation and in a public seminar.

### Non-Thesis option:

Upon graduation, M.S. students pursuing the non-thesis option will have fulfilled the following requirements:

- Completed four courses chosen from groups I-III below, representing each group.
- Completed additional courses in groups I-IV below to complete the 30 semester hours.
- Enrolled in Graduate Seminar (MBI 690) each semester.
- Passed a final examination based on one's graduate courses.

### Group I - Molecular Biology, Structural Biology, and Bioinformatics:

MBI 524 Advanced Experimental Techniques in Structural and Functional Genomics (4)  
MBI 525 Microbial Physiology (4)  
MBI 545 Microbial Genetics (3)  
MBI 564 Human Viruses (3)  
MBI 585 Bioinformatics Principles (3)

### Group II - Medical Microbiology, Microbial Ecology, and Cellular Microbiology:

MBI 505 Medical Bacteriology (4)  
MBI 514 Immunology Principles (3) **or**  
MBI 515 Immunology Principles and Practice (4)  
MBI 535 Medical Mycology (3)  
MBI 575 Microbial Ecology (4)  
MBI 595 Bacterial Cellular and Developmental Biology (3)

### Group III - Advanced Courses:

CSE 620K A Survey of Computational Tools in Bioinformatics (3)  
MBI 605 Advanced Molecular Biology (3)  
MBI 606 Advanced Cell Biology (3)  
MBI 671 Population and Community Ecology (4) **or**  
MBI 672 Ecosystem and Global Ecology (4)

### Group IV - Electives:

BIO 581 Theory of Electron Microscopy (2)  
BIO 582 Scanning Electron Microscopy Laboratory (2)  
BIO 583 Transmission Electron Microscopy Laboratory (2)  
CHM 532 Fundamentals of Biochemistry (4)  
CSE 564 Algorithms (3)  
MBI 565 Microbial and Molecular Genetics Laboratory (2)  
MBI 566 Bioinformatics Computing Skills (3)  
MBI 750 Advanced Topics in Microbiology (1-3)  
STA graduate level courses (1-3)

## 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.

Upon graduation, doctoral students will have fulfilled the following requirements:

- Completed 3 courses from groups I and II, representing both groups, and 2 courses from group III.
- Completed additional courses in groups I-IV and/or Research for Doctoral Dissertation (MBI 850) as deemed appropriate by the advisor and dissertation committee.
- Enrolled in Graduate Seminar (MBI 690) or Molecular Biology Seminar (MBI 650) each semester.
- Enrolled in a literature-intensive course each academic year.
- Passed a written and oral comprehensive examination administered by a committee of graduate faculty.
- Passed an oral defense of a dissertation proposal, approved by a dissertation committee of graduate faculty.
- Conducted a research project approved by the dissertation committee, presented the project as a written thesis and in a public seminar, and submitted a manuscript based on the project for publication in a refereed journal.
- Passed an oral examination by the dissertation committee in defense of your dissertation.

Doctoral students entering with an M.S. may bypass some or all of the requirements from courses in groups I-IV by demonstrating proficiency in them.

For Ph.D. students interested in strengthening their teaching credentials, the department offers the opportunity for Ph.D. candidates to teach one semester of an introductory lecture course in microbiology under the supervision of a member of the microbiology faculty. This experience can also count towards the Certificate Program in College Teaching.

## Certificate Program in Ecology

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 by taking additional specific formal coursework. Certificate requirements are listed elsewhere under the Ecology heading.

## Music Master of Music

For information, contact:  
Director of Graduate Studies  
Department of Music  
Presser Hall (513-529-3014)  
[www.MiamiOH.edu/music](http://www.MiamiOH.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 admission to graduate study in music.

4. Live audition of performance in the principal performing medium is strongly recommended; a high-quality recording 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 a high-quality 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 theory, and sight singing and dictation.

For music education majors, transcripts are reviewed to evaluate baccalaureate competency in music history, music theory, sight singing 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 (0 or 1)  
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 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

#### Twelve 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-Schulwerk Teacher Training, and College of Education, Health and Society courses (6 credits maximum)

## Graduate Certificate for Professional Development: Post-Baccalaureate in String Instrumental Performance

The Post -Baccalaureate in String Instrumental Performance certificate provides focused advance professional study for the experienced string musician. The certificate offers a year-long opportunity for repertoire development in preparation for Graduate School applications, for advanced training for music educators and professional musicians in one of the following tracks: Violin, Viola, Cello, Bass and Harp, further developing techniques, repertoire, methods, and critical aesthetic thinking as applied to instrumental performance.

This post-baccalaureate certificate program also provides a special opportunity for international students who may want to focus on advanced study abroad for a year or to study with a particular musician. Opportunities to compete in the annual concerto competition, to give solo recitals, chamber music recitals, and to perform with a faculty/student chamber orchestra are available to all students enrolled in the certificate program.

Travel to regional international music centers, such as Cincinnati, Chicago, Cleveland and Indianapolis, are planned with the Morpheus Chamber Ensemble to perform and gain exposure to musicians in these orchestras, as well as to perform and recruit new students.

### Program Requirements: 15 Graduate level credit hours total

**There are 5 tracks within the program that allow students to concentrate in-depth within a single discipline.**

MUS 644 Applied Music (4)  
MUS 630C Orchestra (0 or 1 credit hours per semester)  
MUS 690 Graduate Recital (1 credit hour, to be taken the spring semester)

#### In each semester choose one from the following:

MUS630I Graduate Chamber Music (1 credit hour per semester)  
MUS 682 Repertory (1 credit hour)

Permission from the instructor is required. An audition is required for admission. For information, contact the Graduate Director, Department of Music.

## Philosophy Master of Arts

For information, contact:  
Director of Graduate Studies  
Department of Philosophy  
212 Hall Auditorium (513-529-2440)  
[www.units.MiamiOH.edu/philosophy/grad\\_program/index.shtml](http://www.units.MiamiOH.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 and one teaching practicum. 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, with the addition of the teaching practicum in the spring semester of the second year. 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. The teaching practicum introduces students to the pedagogy of philosophy by practicing and reflecting upon the fundamentals of grading, teaching, giving a lecture, directing a discussion group and preparing a syllabus as these activities specifically apply to the discipline.

## Combined Bachelor/Master's Program

High-achieving undergraduate majors can apply for admission to the combined BA/MA program, in which students can earn a BA and an MA in 5 years. To be eligible to apply for the combined degree program, students must have completed at least 64 credit hours with a minimum GPA of 3.25 and have completed at least half of the department credit hour requirements for the major. Please contact the department's Director of Graduate Studies for more information about this option.

## Physics Master of Science

For information, contact:  
Director of Graduate Studies  
Department of Physics  
133 Culler Hall (513-529-5625)  
[www.MiamiOH.edu/physics](http://www.MiamiOH.edu/physics)

## 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 research 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.MiamiOH.edu/politicalscience](http://www.units.MiamiOH.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

You may enter this program only in the summer term; 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 (GPA) 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. Please note that this program begins in the second six week term of the summer.

## Requirements: Master of Arts

The Master of Arts in Political Science at Miami University is a terminal degree for students intending to pursue careers in politics at all levels of governance and in nongovernmental organizations. The MA program is designed to equip students with the analytical skills and substantive knowledge necessary for engaging in applied politics, public affairs, and public policy study. Students in the MA program are exposed to the discipline of political science, specifically focusing on how political science theories underpin the systematic study of the behavior of political actors and processes in the American context and globally. Special emphasis is placed on developing the student's understanding of the frameworks for active participation in governance, issue advocacy, law and legal affairs, and public policy research, while developing the research, analytical and writing skills essential for public leaders.

32 graduate hours required, including:

### All of these core courses:

POL 601 Foundations of Political Analysis (3)  
POL 602 Research and Writing for Political Scientists (2)  
POL 603 Introduction to Quantitative Methods (2)  
POL 604 Public Policy Research (2)  
POL 605 Writing Workshop for Final Project for Master's Degree (1)  
POL 606 Final Project for Master's Degree (4)  
Human Subjects Research Certification

### Concentration

A minimum 9 hours of political science graduate course work in one of the following groups: (1) American Political System/Political Theory, (2) Comparative Political Systems/International Relations, or (3) Public Administration and Policy Analysis.

### Electives

A minimum 9 hours of political science graduate course work outside the concentration. This may include up to 6 hours of graduate course work from outside the department with the approval of the graduate studies committee. Previous work or internship experience may count up to 6 hours with the approval of the graduate studies committee.

## 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.MiamiOH.edu/psychology/grad.html](http://www.units.MiamiOH.edu/psychology/grad.html)

For information on school psychology, see the educational psychology section.

### Admission Requirements

You may enter the program fall 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.

## Russian, East European and Eurasian Studies Certificate

(15 semester hours)

For information, contact:

Havighurst Center for Russian and Post-Soviet Studies  
116 Harrison Hall (513-529-3303)

A Graduate Certificate in Russian, Eastern European and Eurasian Studies (REEES) allows graduate students to meet specialized and interdisciplinary educational goals, positioning them upon graduation to engage in professional opportunities that are not available without it. The REEES certificate enriches a graduate student's academic record and is a distinguished accomplishment that reflects advanced language ability and interdisciplinary study, increasing the marketability of graduate degrees upon their completion. Students who wish to earn the certificate are required to take the Havighurst Colloquium (ATH/HST/RUS 536/POL 540/REL570) TWICE. Other courses can be applied and may include:

ATH 434/534 Anthropology of Democracy & Citizenship (3)  
GEO 408/508 Geography of the Silk Road (The Heart of Asia) (3)  
HST 434/534 China along the Silk Road before 1600 (3)  
POL 630B Seminar on Post-Communist Political Systems (4)  
REL/RUS 482/582 Russian, Eastern European and Eurasian Summer Workshop (3-6)

## Social Work Master of Arts

For information, contact:

Director of Graduate Studies  
Department of Family Studies and Social Work  
101 McGuffey Hall (513-529-2323)  
[www.MiamiOH.edu/familystudies](http://www.MiamiOH.edu/familystudies)

### Admission Requirements

All prospective graduate students seeking admission to the Greater Miami Valley Joint Master of Art in Social Work (MASW) Program will apply directly to the Miami University Graduate School and the Family Studies and Social Work (FSW) Department. Students will need to complete and submit the Miami University graduate application, submit their university transcript(s), submit 3 letters of reference and a 600-700 word personal goal and accomplishment statement. Each of the aforementioned items should be completed and sent directly to the Miami University Graduate School and the Family Studies and Social Work (FSW) Department. Students admitted to the MASW Program must hold a Bachelor's degree in Social Work or closely related field. Students admitted to the 2 year Full-time or 3 year Part-time MASW Program must have an overall GPA of 2.75 or higher, or its equivalent. Students admitted to the Advanced Standing MASW Program must have an overall GPA of 3.25 or higher, or its equivalent as well as an undergraduate degree in social work.

### Program Requirements

The Greater Miami Valley MASW Program offered by Miami University and Wright State University seeks to prepare students to become advanced generalist social work professionals. The goals of the program are to prepare graduates to be advanced generalist social workers who use critical thinking skills and differential application of advanced social work knowledge, theories, skills, values and ethics in the assessment of and intervention with micro, mezzo, and macro level systems. Through an equitable collaboration between Miami University and Wright State University the graduate degree in social work seeks to contribute to the knowledge base of the profession of social work and provide leadership in practice and policies on behalf of the poor, oppressed, racial and ethnic minorities and at-risk populations.

Core course are offered in the FSW department at Miami University and Social Work department at Wright State University, with additional courses available across other departments. Emphasis in the graduate social work program is placed on the best practices and policy skills that advocate and enrich society and human diversity, promote social and economic justice and prevent and alleviate oppression in urban and rural areas through a curriculum that integrates foundation courses, concentration courses, concentration focus area courses, and field integration.

### Foundation Courses

Collectively the foundation courses, which are taught in Year 1, provide students with the knowledge, values, and skills required of for generalist social work practice:

FSW 611 Social Welfare Policy I (3) and  
 FSW 612 Social Welfare Policy II (3)  
 FSW 617 Human Behavior and Social Environment I (3)  
 FSW 618 Human Behavior and Social Environment II (3)  
 FSW 621 Social Work Practice I (3) and  
 FSW 622 Social Work Practice II (3)  
 Social Work Research I (3)  
 FSW 615 Cultural Competency (3)  
 Social Work Field Education and Lab I (3)

### Concentration Courses

The Concentration for all students admitted to the MASW Program will be Advanced Generalist Practice. Advanced Generalist Practice is grounded in the liberal arts and the person and environment construct that seeks to promote human and social well-being. Students in the program will develop the expertise to use a range of prevention and intervention methods in practice with individuals, families, groups, organizations, and communities. Students will also apply ethical principles, critical thinking and build on the strengths and resiliency of all human beings by engaging in research-informed practice.

**The Advanced Generalist Social Work Practice Concentration Courses are as follows:**

Social Work Research II (3)  
 Social Work Research III (3)  
 Advanced Generalist Social Work Practice I (3) – direct practice  
 Advanced Generalist Social Work Practice II (3) – macro practice  
 Social Work Field Practicum & Lab II (3)  
 Social Work Field Practicum & Lab III (3)

### Concentration Focus Area Courses

In addition to the Advanced Generalist Concentration, students in the MASW Program are expected to choose between two Concentration Focus Areas that are offered: Gerontology and Child and Family Studies. Effective practice and policy skill development in each of these areas is enhanced and grounded in social work values and ethics that make use of current research knowledge and skills that seek to improve systemic practice, programs and policies. Graduates of the program will be lifelong learners and leaders, contribute to the social work profession, promote diversity and cultural competency, social and economic justice, reduce oppression, and improve the broader human condition.

**The concentration focus area courses are as follows:**

Concentration Focus Area Practice Course (3)  
 Concentration Focus Area Policy Course (3)  
 Concentration Elective (3)

### Field Education

Field education is the signature pedagogy of the MASW Program. All competencies and practice behaviors are applied in the practicum. Students demonstrate mastery of the practice behaviors by working collaboratively with the course instructors, field instructors, and field supervisors.

The practicum is the place where students apply all of the competencies and foundation practice behaviors. The foundation courses will also have assignments that students apply to their practicum.

Students admitted to the advanced standing MASW program will complete 600 hours of field education whereas students admitted to the 2 year Full-time or 3 year Part-time MASW Program will complete 900 hours of field education. In addition, students will conduct an evaluative culminating research project in their final semester at their field education/practicum agency

### Integration of Courses and Programs

The Greater Miami Valley MASW Program integrates each of the aforementioned areas (foundation courses, concentration courses, concentration focus area courses, and field integration) for students whose interests and career goals include research or applied work in the field of social work. At the conclusion of the program, students will receive the Master of Arts degree with a major in Social Work from the institution (i.e., MU or WSU) in which they were admitted. They will experience, however, the same nationally accredited curriculum, some of which will be shared through courses provided either as online applications, closed circuit television or at the regional campus/VOA sites.

## Spanish Master of Arts

For information, contact:  
 Director of Graduate Studies\*  
 Department of Spanish and Portuguese  
 268 Irvin Hall (513-529-4500)  
[www.MiamiOH.edu/spanport](http://www.MiamiOH.edu/spanport)

### Prerequisites and Admission

Applicants to the B.A./M.A. program in Spanish must have completed a minimum of 64 undergraduate credits by the time of application with a GPA of 3.25 and 3.50 in Spanish. Study abroad prior to application is strongly recommended. Applicants should also have completed one 400 level course. The deadline for application is **March 15th** of the junior year. Students should send a letter of application in Spanish to the Director of Graduate Studies in Spanish, explaining their interest in the program and their intended goals. Applicants must also provide two faculty letters of recommendation. At least one of the letters must be from a member of the Department of Spanish and Portuguese. Highest priority will be given to students who have studied abroad for at least one semester.

### Program Requirements (30 semester hours)

This program requires a minimum of 30 graduate semester hours. Varying degrees of emphasis in literature, cultural studies and linguistics are possible depending on selection of courses. Students receiving the Bachelor's degree prior to completing the master's degree can count up to 9 hours of graduate course work toward their bachelor's degree with permission of the appropriate advisors. Those hours can also count toward the completion of their Master's degree. Students must have completed a minimum of 128 hours to be classified as a graduate student. A minimum of 150 hours is required for the combined program: a 120 semester hour minimum for a Bachelor's degree and 30 hour minimum for a Master's degree.

## 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.MiamiOH.edu/spa](http://www.MiamiOH.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 (GPA) (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 GPA 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.

## Statistics Master of Science, Certificate

For more information, contact:  
Director of Graduate Studies  
Department of Statistics  
311 Upham Hall (513-529-7828)  
<http://www.units.MiamiOH.edu/sta/>

## Admission Requirement - Master of Science

A knowledge of mathematics at least equivalent to multidimensional calculus (MTH 252) is required.

## Program Requirements - Master of Science (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 527 Introduction to Bayesian Statistics (3)  
STA 567 Statistical Learning (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.

## Applied Statistics - Certificate

Statistics is the language of experimentation and scientific inquiry. Statistics as a discipline provides insights into the best methods associated with the collection, analysis, and presentation of numerical data. Decisions related to the design of surveys and experiments, the collection, processing, and analysis of data; and the interpretation of the results are directly impacted by statistics. Further, these decisions cut across disciplines. This graduate certificate provides a broader exposure to statistics that includes basic background (introductory statistics), essential ideas in modeling (regression and experimental design), programming to generate customized analytic solutions and a collection of advanced methods courses. The certificate requires a minimum of twelve hours of coursework comprised of one course from each of the four areas below:

### Introductory Statistics

STA 671 Environmental Statistics (3)  
EHS 667 Behavior Statistics (3)  
GTU 708 Quantitative Methods and Statistics (4)  
PSY 601 Statistics and Methods I (3)  
STA 501 Probability (3) **and**  
STA 562 Inferential Statistics (3) **or**  
other comparable course(s) approved by the Coordinating Committee

### Regression and Experimental Design

EHS 668 Behavior Statistics II (3)  
GTU 718 Statistical Modeling in Gerontology (3)  
PSY 602 Statistics and Methods II (3)  
STA 563 Regression Analysis (4) **or**  
other comparable course(s) approved by the Coordinating Committee  
STA 672 Statistical Modeling and Study Design (4)

### Statistical Programming

STA 502 Statistical Programming (3)  
CSE 603 Computer Programming (3) **or**  
other comparable course(s) approved by the Coordinating Committee

### Advanced Methods

STA 583 Analysis of Forecasting Systems (3)  
GTU 750 Special Topics in Advanced Quantitative Methodology in Aging Research (1-4) **or**  
other comparable course(s) approved by the Coordinating Committee

## Theatre Master of Arts

For more information, contact:  
Director of Graduate Studies  
Department of Theatre  
119 Center for Performing Arts (513-529-3053)  
<http://arts.MiamiOH.edu/theatre/>

This program requires a minimum of three semesters (or two semesters and a summer term) 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 Research and Methodology (3)  
THE 603 Introduction to Theatre Historiography (3)  
THE 605 Introduction to Theatre and Performance Theory (3)  
THE 610 Graduate Seminar in Theatre Topics (3; maximum 6)  
THE 703 Graduate Colloquium in Theatre Studies (1; maximum 4)

#### 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, Gender, and Sexuality Studies Certificate

For information, contact:

Director of Women's, Gender, and Sexuality Studies

126 MacMillan Hall (513-529-4616)

[www.MiamiOH.edu/womensstudies](http://www.MiamiOH.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, Gender, and Sexuality 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)**

WGS 601 Introduction to Women's Studies (3)

WGS 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 WGS advisor.

**Final Project**

Planned with and approved by your WGS advisor; includes presentation.

# 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.bannernetweb.MiamiOH.edu](http://www.bannernetweb.MiamiOH.edu)).

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 section). 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

**CAS-W:** Writing

**CAS-QL:** Quantitative Literacy

**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 GPA. 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.

**Department Topics Courses:** are permanently approved courses and usually carrying a zero ending course number. The goal of these courses is to provide the opportunity: (1) to offer emerging material not covered in existing courses; (2) to make effective use of a traditional classroom setting for the

development and piloting of a new course for several terms or semesters; or (3) to cover material for which a visiting faculty member has expertise. Any single topic may be offered for a duration of up to 8 consecutive academic terms. Once that period of time has expired, the course on that topic should be undergo permanent course approval on its own merits.

**GPA:** 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.).

**Modifiers:** are letters placed at the end of a course number which typically designate one of the following: (1) the type or teaching approach used in the course (e.g., service learning); (2) the location of the course (e.g., Luxembourg); or (3) a particular population of students (e.g., honors). Modifiers may only be used for permanently approved courses and may be requested by emailing [courseapproval@MiamiOH.edu](mailto:courseapproval@MiamiOH.edu). Examples of existing modifiers:

- Existing Departmental Topics Course
- Registration purposes (e.g., EDT 419A, EDT 419E to facilitate the correct majors into the course)
- Honors - noted with H
- Service Learning - noted with X on appropriate Global Miami Plan courses
- Majors only - noted with M
- CAS Writing - noted with W on sections that are CAS Writing approved, but the course with no modifier is not approved CAS Writing
- Luxembourg Campus - noted with L
- Associated Laboratory courses - noted with L (e.g. CHM 111L)

**MPF:** Global Miami Plan for Liberal Education. Course fulfills a part of the MPF requirement. (Please see the Liberal Education at Miami chapter.) These refer to the MPF courses outline:

**I:** English composition

**IIA:** Fine Arts

**IIB:** Humanities

**IIC:** Social Science

**III:** Global Perspectives

**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 MP 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

**Independent Work:** Independent work comes in two forms: (1) internship or co-operative education, and (2) independent study.

Internships and “co-ops” are a partnership between the student, the University, and employers that formally integrate students’ academic study with work or community service experience. Internships are typically of a specified and definite duration, may or may not involve credit hours, and may or may not include compensation in the forms of wages, salaries, stipends or scholarships. Co-ops may provide students with compensation from the cooperative employer in the form of wages or salaries for work performed as well as academic credit; typically students alternate or combine periods of academic study and work experience.

An independent study is a course taken with ongoing supervision by the instructor for rigorous learning and knowledge enhancement in a particular area of interest beyond the courses offered. The content of an independent study course should not duplicate any course available to the student.

In order to register for an Independent Study, faculty must print an Independent Study Permit available on the University Registrar website, complete the form, sign, and send to the department chair or regional campus coordinator before it is submitted to the Office of the Registrar.

Enrollment in an independent study becomes part of the student’s academic load. Procedures for withdrawal from such courses are the same as for regularly scheduled courses.

Independent Study courses do not carry over from one semester or term to another; a new permit must be completed and submitted each term or semester.

With the permission of the instructor, students may register for zero to five credit hours of independent study each semester or term (with no more than a total of 10 credit hours per academic year).

Independent study courses should be numbered 177, 277, 377 or 477 in accordance with the student’s class level (e.g., first-year students register for 177, and second year students register for 277). The 340 number should be only used for internships.

Independent Study Permits must:

Be submitted during the first 20% of the semester or term;  
Include approvals of both the instructor and department chair;  
Indicate the course number for transcript purposes.

Permits may not be processed if they are incomplete, incorrect, late, or denied.

**100:** Each department in the College of Arts and Science can offer a seminar numbered 100, cross-listed with at least two departments. This course number is reserved especially to allow students and faculty a chance to learn how different disciplines deal with the same problem. The 100 course has one or two semester hours of credit; you cannot receive more than four semester hours credit for all courses numbered 100. These courses may not be offered every year.

**300:** This course, Special Topics, is offered according to student request together with instructor permission. It carries one to three semester hours of credit; you cannot receive more than six semester hours of credit for this course.

**177, 277, 377, and 477:** These courses are designated for independent study. You can register for zero to five hours of independent study each semester (no more than 10 per year). Registration for each course is in accordance with the course’s class level (177 for first-year material, 277 for second-year material, etc.). Independent study projects must be approved by the instructor and the department chair. Students completing research for independent study purposes will register with an R modifier in the appropriate 177R, 277R, 377R or 477R. Students completing Extended Study or Service Learning in association with a Global Miami Plan course will register for one credit hour with an X modifier the appropriate 177X, 277X, 377X or 477X. When taking this course for zero credits, the student must enroll in either 177, 277, 377, or 477, rather than modified versions of the courses.

**340:** This course is for internships or co-ops. It can be worth up to 20 semester hours of credit depending on the agreement between student and instructor.

**199, 299, 399, 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 0-5 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.

### 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.

*Prerequisites:* ACC 221 and ACC 222.

### ACC 256 Accountancy Career Exploration and Planning (1)

This course will explore the historical, current and possible future role of the accounting profession in the domestic and global economy. Students will understand the various standard setters and opportunities for the accounting profession to interact and influence the outcomes of business organizations. This course will assist accountancy majors to explore career interests in future accountancy positions within public accounting, private industry or governmental positions. Specifically, the course will focus on helping students understand the variety of career opportunities available to accounting majors. The course will assist students with understanding the key career planning and job searching opportunities at Miami University. Students will be exposed to the timeline and types of events they can expect in the interview process and will be informed about how best to prepare for and be successful in executing each. Credit/No Credit only.

### 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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.

### 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.

*Prerequisites:* ACC 221 and 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 and ACC 222.

### 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.

*Prerequisites:* ACC 221, ACC 222 and ISA 235.

### ACC 370 Applied Accounting Research (1-3; maximum 3)

This course provides students with the opportunity to apply their knowledge of accounting along with their research, team and communication skills to real world problems. The typical mode of learning will be a case competition requiring students to work in a team to research and propose a solution to an accounting issue. The cases used in this course are developed from actual situations faced by accountants. In many cases, students will be judged on their proposed solutions by a panel of accounting professionals.

*Prerequisite:* ACC 221.

### 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 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 throughout accounting.

*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:* 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 458 Advanced Auditing Topics and Research (3)

This course will cover advanced auditing topics including risk assessment, internal control testing and the situational and dispositional factors affecting auditor judgment and decision making. To examine these topics students will read a mix of popular press articles, technical guidance from both the AICPA and PCAOB, and academic journal articles.

*Recommended prerequisite:* ACC 453.

### ACC 461 Accounting for Business Combinations (3)

Accounting for mergers and acquisitions with emphasis on preparation of consolidated financial statements. The course also covers accounting for business entities operating as partnerships.

*Prerequisite:* ACC 321.

### ACC 468/568 Accounting for Governmental and Not-for-Profit Organizations (3) MPT

Application of accounting principles for governmental organizations with emphasis on fund accounting, budgetary control, and financial reporting. Also includes the study of accounting issues for health

care organizations, 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.

*Prerequisites:* ACC 221 and ACC 222.

#### **ACC 477 Independent Studies (0-5)**

Must be approved by instructor and department chair.

#### **ACC 490 Current Topics in Accounting and Auditing (1-3)**

Since accounting exists in an ever-changing environment, this course will expose students to the latest issues in financial accounting, managerial accounting, tax, auditing and accounting systems. The format for the course will depend on the specific topic being addressed in the course.

*Prerequisites:* ACC 321, 333, 343 and 361.

#### **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.

*Prerequisite:* Enrollment in MBA Program.

#### **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.

*Prerequisite:* enrollment in MBA Program.

#### **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:* enrollment in Master of Accountancy Program.

#### **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 635 Financial Leadership in Organizations (3)**

Examines the roles of the CFO in the financial leadership of organizations, particularly in the areas of guidance and governance. Focuses on CFO interactions with various stakeholders, and the support role that various functional areas within the organization play to assist the CFO. Investigates differences in CFO-stakeholder interactions and support roles across various types of organizations and over time within one firm. Analysis of the knowledge and skills that financial professionals must bring to leadership roles within organizations.

#### **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:* enrollment in Master of Accountancy Program.

#### **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:* enrollment in Master of Accountancy Program.

#### **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:* enrollment in Master of Accountancy Program.

#### **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.

*Prerequisite:* enrollment in Master of Accountancy Program.

#### **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:* enrollment in Master of Accountancy Program.

#### **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.

*Prerequisite:* enrollment in Master of Accountancy Program.

#### **ACC 661 Accounting Theory and Research (3)**

This course is focused on examining academic research related to accounting topics. Specifically the course will review key research articles with the intent of understanding the underlying motivation and competing theories, the research method and approach, and the specific findings of the research. The goal of the course is to expose students to existing research and research tools while assisting students in the development of their analytical thinking skills related to the accounting discipline.

#### **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:* enrollment in Master of Accountancy Program.

## **AEROSPACE STUDIES COURSES (AES Arts and Science)**

#### **AES 110 Leadership Laboratory (1)**

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)**

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)**

Continuation of AES 121. 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.

*Prerequisite:* AES 121 or permission from instructor.

#### **AES 210 Leadership Laboratory (1)**

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 from instructor. *Co-requisite:* AES 221.

#### **AES 211 Leadership Laboratory (1)**

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 from 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.

*Prerequisite:* AES 221 or permission from instructor.

#### **AES 310 Leadership Laboratory (1)**

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)**

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)**

Continuation of AES 331. 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.

*Prerequisite:* AES 331 or permission of instructor.

#### **AES 410 Leadership Laboratory (1)**

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)**

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 Affairs and Preparation for Active Duty (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 Affairs and Preparation for Active Duty (3) MPC**

Continuation of AES 431. 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 permission from instructor.

## **AMERICAN CULTURE & ENGLISH PROGRAM (ACE Arts and Science)**

#### **ACE 112 Advanced Communications Strategies: Speaking and Listening for Academic Contexts (5)**

For L2 students, intensive practice in spoken English in an academic context; includes discussion, formal presentation, understanding lectures and note-taking; also touches on more casual spoken English. Only open to conditional admission students in ACE Program.

#### **ACE 113 Reading and Writing in Academic Contexts (4)**

For L2 students, an intensive reading and writing course focusing on reading comprehension, textual analysis, vocabulary, composing, and rhetoric. Students learn critical skills needed for success in academic writing. Open only to conditional admission students in ACE Program.

#### **ACE 310 Special Topics in American Academic Culture for International Students (1-3; maximum 6)**

Orientation to American academic culture for international students. Primary emphasis on strategies, practices, and conventions of academic writing and speaking/presenting. Variable topics include: strategies for academic writing and discussing/presenting; academic integrity and plagiarism; collaboration and team work; citation practices; written genres common in various disciplines.

#### **ACE 612 Advanced Communication Strategies for Graduate International Students (5)**

For L2 graduate students, intensive instruction and practice in oral English, both listening and speaking, in graduate-level academic and professional contexts. Includes conversation, discussion, formal presentation and lecturing, interviewing, working in teams with speakers of different languages, and notetaking.

#### **ACE 613 Advanced Reading and Writing for Graduate International Students (4)**

For L2 graduate students, an intensive reading and writing course focusing on English vocabulary development, reading comprehension and analysis, and composing and rhetoric within graduate-level academic and professional contexts.

#### **ACE 619 Advanced Speaking and Presentation for Graduate International Students (2)**

For L2 graduate students, an intensive course in English speaking, pronunciation, and presentation, with an emphasis on improving

accuracy, fluency, comprehensibility, and clarity of speech, particularly for instructional contexts.

## 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) MPF

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, IIB, Cul, 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. IIA, IIB, Cul.*

### AMS 205 Introduction to American Cultures (3) MPF

Explores what it means to be "American." As an introduction to the interdisciplinary study of American cultures and identities, past and present, it examines key ideas, events, texts, images, objects, places, and other reflections of American cultures and identities. Students will consider how the meaning and significance of American and American identity has been defined, discussed and debated from multiple perspectives. IIB, Cul, H. CAS-B.

### 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.

*Prerequisites: AMS 205.*

### AMS 207 America - A Global Perspective (3) MPF

Explores the local dimensions of globalization by focusing on how global networks and practices affect life and culture in the United States. Students examine the theoretical and practical questions associated with membership in local communities, in the US as a nation-state, and in the global community at large. IIB, IIIB, CUL, H. CAS-B.

### AMS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)

This is an intermediate level course which enables students to investigate and discuss interdisciplinary practices of knowledge creation and dissemination. Students will practice a variety of writing and other communication strategies necessary for the effective dissemination of ideas to interdisciplinary audiences and the general public, and can expect to gain experience in working with a wide spectrum of interdisciplinary research, tools and methods while engaging intellectually in interdisciplinary modes of thinking, reading, listening, and speaking.

*Cross-listed with AAA/BWS/LAS/WGS.*

### 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.*

### 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.*

### 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. IIB, Cul, H. CAS-B.

*Cross-listed with FST/ATL.*

### AMS 241 Religions of the American Peoples (3) 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.*

### AMS 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. IIB, Cul. CAS-B.

*Cross-listed with ENG.*

### AMS 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. IIB. CAS-B.

*Cross-listed with ENG.*

### AMS 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. IIB, Cul. CAS-B.

*Cross-listed with AAA and ENG.*

### AMS 253 Work, Wealth, and Power: U.S. Business and Labor History (3)

Examines U.S. business and labor history in order to understand Americans' changing perceptions of wealth, work and power from the 1790s to the present. Topics include the major economic transformations in American history; principles of scientific management; formation of class identity; productivity and the meaning of work; the structure of American capitalism and conceptions of the American Dream. Students will examine the ways in which U.S. business and labor practices have changed over time; the role capital and labor have played in shaping the nation's economic agenda and the political power wielded by manufacturing alliances and labor organizations.

*Cross-listed with HST.*

### 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. IIB, Cul, H. CAS-B.

*Cross-listed with ENG.*



**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.

*Prerequisite(s): MUS/AMS 135 or MUS 185. Cross-listed with AMS.*

**AMS 301 American Identities (3)**

Focusing on a specific theme, topic or issue, the course explores social and cultural identity, intercultural exchange, and public culture in the United States. The course connects theory and practice 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 Transnational America (3)**

Examination of American culture, identity, politics, and history in the context of growing global interconnectedness. Course themes and issue vary, but topics could include: transnationalism, diaspora, immigration/emigration, and other related issues of identity and belonging.

*Recommended prerequisite: AMS 205.*

**AMS 303 Consumer Culture (3)**

This course examines the messages, meanings, practices, and products of consumer culture in the United States. It explores consumption from an interdisciplinary perspective integrating literature, politics, visual imagery, multimedia, and technology that frame the business of buying and selling of goods. Central topics include advertising and desire, the meaning of consumer goods and the construction of consumer lifestyles, as well as the developing practices of salesmanship, marketing, and public relations in historical context. Course themes will focus on the analysis and interpretation of the American practices of consumerism with an emphasis on issues of commodification, globalization, transnationalism and issues of identity. Students will explore how consumerism affects ideals of belonging, citizenship, and membership in a heterogeneous transnational America.

**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.*

**AMS 305 American Icons (3)**

American Icons are objects, images, and symbols of identification, which represent the United States and are associated with the idea of America both at home and in the global world. The significance of American icons derives not solely from their own internal qualities, but often from the qualities and ambitions that they have come to represent for others. Through a critical examination of their creation, dissemination, and legacies, this course explores the variety of meanings that these figures and symbols have come to represent. Central themes include the relevance of the past for the present, varieties of cultural representation, the impact that different forms of representation have on their content, and the coherence of American culture.

**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.

*Recommended prerequisite: AMS 205 or permission of instructor.*

**AMS 340 Internship in American Studies (0-20)**

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 (3) MPT**

History and symbolic structure of American Protestantism and its role in the development of American culture.

*Cross-listed with REL.*

**AMS 342 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.*

**AMS 345 Women, Religion and Social Change in America (3) 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 WGS 201 or by permission of instructor. Cross-listed with REL/WGS.*

**AMS 346 Issues in the Study of Native American Religions (3)**

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.*

**AMS 348 Ethnic American Literatures (3)**

Intensive introduction to theories of race, ethnicity, and identity through the study of American literature by ethnic minorities. CAS-B.

*Cross-listed with ENG.*

**AMS 357 Gilded Age America (3)**

Covering the period between 1877 and about 1920, this course explores the political, economic, social, and cultural history of the era in the United States known as the Gilded Age, as well as Progressive Era responses to issues raised in that era. Pedagogy includes both lecture and hands-on experiential work with primary and secondary sources.

*Cross-listed with HST.*

**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.*

**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.*

**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.*

**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 WGS.*

**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.

*Prerequisites: MUS/AMS 285 or permission of instructor. Cross-listed with MUS.*

**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. *Prerequisite: MUS/AMS 285, MUS/AMS 385 or permission of instructor. Cross-listed with MUS.*

**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. CAS-B. Offered infrequently. *Cross-listed with ENG.*

**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/WGS.*

**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 (1-4)**

Practice, reflection, and presentation of student driven research and engagement in American Studies. *Prerequisite: permission of instructor.*

**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.*

**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.*

**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.*

**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.

**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. *Prerequisite(s): MUS 201/202, 311/312, or permission of instructor. Cross-listed with MUS.*

## ANTHROPOLOGY COURSES (ATH Arts and Science)

**ATH 135 Film as Ethnography (1)**

Explores anthropological approaches to the study of human diversity and variation through the lens of ethnographic and documentary films. Exposes students to basic concepts in anthropology including cultural and linguistic relativity, globalization, and representational practices. *Cross-listed with FST.*

**ATH 145 Lost Cities & Ancient Civilizations (3) MPF**

Archaeological and anthropological approaches for understanding human cultural, social, and ecological adaptations in global prehistory. Examines similarities and differences among prehistoric peoples and civilizations and their global contexts and interconnectedness in terms of political economy and social organization; technologies, engineering, and environment; and religion and symbolic systems. IIC, IIIB, Cul, H.

**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, social, and linguistic variation around the world and through time. Develops anthropological and ethnographic approaches to understanding cultural differences and similarities in political, social and economic organization; marriage and family patterns; environment and beliefs systems; and other aspects of globalized human cultural life. IIC, IIIB, Cul, H.

**ATH 185 Cultural Diversity in the U.S. (3) MPF**

Anthropological and ethnographic approaches to the study of cultural, social, and linguistic variation in the United States, its territories, and borderlands. As an introduction to cultural anthropology, the course provides a foundation for understanding historical and contemporary contexts related to globalization and diaspora; ethnic, racial, and class identities; political economy and environment; belief systems; and ethnographic methodology. IIC, IIIB, Cul, H.

**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. IIC, Cul, H. *Cross-listed with LAS 208.*

**ATH 212 Introduction to Archaeological Theory and Methods (4)**

Introduction to theory, methods, and techniques of archaeology.

**ATH 231 Foundations of Cultural Anthropology (4) MPT**

Survey of major theoretical perspectives in cultural anthropology. History, themes, debates, and controversies are approached in terms of their intellectual lineage, theoretical content, fieldwork methodologies and ethics, policy applications, and global relevance.

**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. IIB, Cul, H. *Cross-listed with CLS/HST/ITS/POL/REL/RUS.*

**ATH 255 Foundations of Biological Anthropology (4)**

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.

**ATH 265 Introduction to Linguistic Anthropology (4) MPT**

Survey of theories and methods in linguistic anthropology, including history of the discipline and linguistic relativity; verbal art, language ideologies, and identities; and discourse-centered, interactional, and semiotic approaches to the ethnographic study of the language-culture-individual nexus.

**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.*

**ATH 303 Native American Culture (4) MPT**

Description and analysis of Native American cultures from prehistoric to modern times.

**ATH 304 Native North America: Anthropological Perspectives (3) MPT**

Critical and interdisciplinary approaches to the anthropological and ethnographic study of the Indigenous peoples of North America, including examination of the multifaceted cultures, histories, and identities of contemporary Native American/First Nations communities. Topics include sovereignty and interdependence, colonization and resistance, linguistic and cultural vitality, and expressive culture and representational practices.

**ATH 305 Latin America: Anthropological Perspectives (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 Russia and Eurasia: Anthropological Perspectives (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 RUS.*

**ATH 307 The Middle East: Anthropological Perspectives (3) MPT**

Survey and analysis of various cultural groups in contemporary Southwest Asia and North Africa.  
*Cross-listed with BWS.*

**ATH 308 South Asia: Anthropological Perspectives (3)**

Anthropologically examines contemporary South Asian societies focusing on ethnographic accounts of how people understand and manipulate their social, economic, political, ideological, religious, and technical resources to solve local and universal human problems within a context of colonialism and globalization.

**ATH 309 Introduction to Linguistics (4) MPF**

Scope of linguistics: fundamental concepts and methods of linguistic science in its descriptive and historical aspects. V. CAS-E.  
*Cross-listed with ENG 303, SPN 303, GER 309.*

**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/WGS.*

**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 Multiculturalism in Europe: Anthropological Perspectives (3)**

Explores diverse expressions and challenges of multiculturalism in Europe. Readings and class discussions develop anthropological tools and critical perspectives to better understand processes through which identities are constructed and experienced, and to analyze political, economic and historical dynamics through which identity groups develop and interact. Attention is given to the construction of national identities and unmarked racial, religious and sexual majorities against which minority experiences play out, and to understanding politics of difference, ideologies of integration, and processes of cultural change in particular European contexts.

**ATH 345 Global Media, Ethnography, and Film (3)**

Explores anthropological and ethnographic frameworks to the study of global media flows across boundaries, borders, and time. Examines the ways in which mediated performances, texts, and images are instrumental in building and negotiating communities, cultures, and identities.  
*Cross-listed with FST.*

**ATH 348 Introduction to Medical Anthropology (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.

**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 BIO 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 361 Language and Power (3) MPF**

Explores the role of linguistic performance, verbal art, and other communicative practices in negotiating power and disparate access to opportunities and resources within and among social groups. Special attention will be given to how identities, ideologies, and worldviews are linguistically created, recreated, and challenged in global contexts.

**ATH 364 Language and Culture in Native North America (3) MPT**

Explores the multifaceted communicative and sociolinguistic practices of indigenous peoples of North America in historical and contemporary contexts. Topics include linguistic and cultural vitality; performance, popular culture, and ethnopoetics; identities and language ideologies; and emergent discursive practices.

*Recommended prerequisite: ATH 265 or 309; or ENG 303, SPN 303, or GER 309.*

**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.*

**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 Doctors, Clinics, and Epidemics (3)**

Explores the contemporary social, cultural, and communicative practices of biomedicine, and links these to the responses to epidemics and social hierarchies that form its European roots. Engages various understandings of clinical language, communication, and structural inequities that challenge the efficacy of medical practice.

**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 BIO 206; junior or senior status; or permission of instructor. Cross-listed with BIO.*

**ATH 403/503 Anthropology of Religion (3)**

Examines the study of religion anthropologically and ethnographically, exploring topics of historic interest such as conversion and pilgrimage and emerging debates such as the globalization of religion. Emphasizes the power of religion in human cultural life and its relationship to other social institutions through the study of indigenous religious traditions and major world religions. Introduces anthropological paradigms including cultural materialism, interpretive approaches, structuralism, and religion as an evolutionary adaptation.

*Prerequisite: ATH 155, 175, 185, 231 or 301.*

**ATH 405/505 Food, Taste, and Desire (3)**

Explores food consumption as a meaningful practice embedded in local, national, and global relations and in social, economic, and political contexts. Topics include history of food consumption; food and power; nation, the state, and food; gender, sexuality and consumption; consumption, marketing, and subjectivity; globalization; hunger and memory; need, taste, and desire; and food aesthetics, moralities, and poetics. CAS-C.

*Recommended prerequisite: ATH 175 or any other 100-300 level Anthropology course.*

**ATH 409 Sustainability: European challenges and strategies (3)**

Examines social and environmental dimensions of sustainability challenges, and explore strategies for sustainability in European lifestyles, infrastructure, transport, business and policy, with a comparative look at the U.S. Anthropological and geographic method and theory ground a holistic perspective on human-environment relations, which students apply in their exploration of relevant issues in architecture and planning, business, engineering, social work, and natural and social sciences. Special attention is given to competing visions and priorities about what should be sustained, and for whom, and to resulting tensions and conflicts.

*Cross-listed with ENV/GEO.*

**ATH 411/511 Applied Anthropology (3) MPT**

New possibilities for using anthropological principles and methods in contemporary nonacademic settings.

**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. Cross-listed with LAS 418.*

**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.

**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 Anthropology & Global History (3) MPT**

Examines the emergence, transformation, and collapse of human societies from tribes to states to "world" systems. Explores theoretical explanations for the evolution of cultural complexity using case studies from ethnographic and archaeological 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 436/536 Havighurst Colloquium (3)**

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 3 hours counting towards the history major.

*Cross-listed with GEO 410D/510D, HST 436/536, POL 440/540, REL 470A/570A and RUS 436/536.*

**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: junior or senior status.*

**ATH 465/565 Ethnography of Communication (3)**

Practicum course on the conception, implementation, and analysis of original field research in the ethnography of communication. Provides training in research design, ethnographic and sociolinguistic methods, and multimedia approaches to understanding how individuals and communities negotiate their place in social and cultural worlds through everyday communicative practices.

*Prerequisite: ATH 265 or ATH/GER 309 or ENG/CLS/SPN 303.*

**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 480 Independent Reading for Departmental Honors (3-6)**

**ATH 482/582 Russian, Eastern European and Eurasian Summer Workshop (6 undergraduate; maximum 12)**

A three-week study tour (taught in English) will be an intensive study of the history, politics, and culture of this area. The location of the trip may vary from year to year. Students examine the intersection of religion, literature, film, visual arts, history, politics and/or architecture. The tour will visit major historical and cultural sites and hear lectures from local specialists.

*Recommended prerequisites:* REL/RUS 133 or ATH/HST/POL/REL/RUS 254. *Cross-listed with HST/POL/REL/RUS.*

**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. CAS-QL.

*Prerequisite:* ATH 255 or BIO 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 BIO 206, junior or senior status, or permission of instructor. *Cross-listed with BIO.*

**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 BIO 206, junior or senior status, or permission of instructor. *Cross-listed with BIO.*

**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; Department of German, Russian, Asian, and Middle Eastern Languages and Cultures)

**ARB 101 Elementary Arabic I (4)**

Study of the Arabic alphabet, sound system, and basic communication skills. Builds a foundation of speaking, listening, reading, and writing with culturally appropriate behavior. For students with no prior study of Arabic.

**ARB 102 Elementary Arabic II (4)**

Continues to build communication skills in spoken and standard Arabic. Develops a balanced knowledge of listening, speaking, reading and writing skills.

*Prerequisite(s):* ARB 101 or equivalent.

**ARB 110 Contemporary Spoken Arabic (3)**

Focus on contemporary spoken Arabic of a select region. Emphasis on vocabulary, grammatical structures, and culturally appropriate behavior of daily life for working professionals. Native or heritage

speakers of the regional variety need instructor's permission to register.

**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:* ARB 102 or equivalent.

**ARB 202 Intermediate Modern Arabic (3)**

Builds an intermediate level of skill in Arabic so that students can read and discuss topics of general interest, including aspects of Arab culture.

*Prerequisite:* ARB 201 or permission of instructor.

**ARB 230 Topics in Arabic Literature in Translation (3)**

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 of literary and cultural topics that range from the classical period to the present day. Integrates comprehension and communication skills in spoken and standard Arabic.

*Prerequisite:* 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 period to the present day. Integrates comprehension and communication skills in spoken and standard Arabic.

*Prerequisite:* ARB 301 or permission of instructor.

**ARB 311 Media Arabic (3)**

Focuses on developing student's ability to understand and use authentic materials from electronic, broadcast, and print media.

*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 Creative Arts)

**ARC 101/102 Beginning 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 students in all majors. IIA, IIIB.

**ARC 113/114 Graphic Media I, II (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 Architecture (3) MPF**

Study of the relationship between architecture and the cultural, social, and environmental contexts in which it exists through selected historical and contemporary examples. Primarily intended

for non-majors. IIA, B, H. (Does not meet requirements for major in Architecture or Interior Design).

#### **ARC 201/202 Architecture 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.

*Prerequisites:* 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; *co-requisite 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 of Architecture I, II (3, 3) MPF**

Thorough and systematic survey of the history of architecture, urban design, and allied arts across global contexts. Non-majors welcome. IIA, B, H.

#### **ARC 225 Design: Behavior, Perception, Aesthetics (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 Architecture 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 401/402 Architecture 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.

*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.

*Prerequisites:* 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/practice. 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 402 Orientation To Ghana  
ARC 403 Metals for Architecture Modeling  
ARC 406 Macromedia Flash Animation  
ARC 407 Web Design  
ARC 408 Turkish Culture, History & Language  
ARC 404C Building Information Modeling  
ARC 404D Watercolor  
ARC 404E Marker  
ARC 404F Portfolio  
ARC 404G Multi-Media Representation  
ARC 404H Digital Design & Fabrication  
ARC 404J Model Making Workshop  
ARC 404K Pattern and Ornament  
ARC 404L Adobe Illustrator 101  
ARC 404M Papermaking  
ARC 404N Basic Twi  
ARC 404P Advanced Visualization  
ARC 404Q Daylighting Design  
ARC 404R Rendering Techniques  
ARC 404S Drawing & Hybrid Media  
ARC 404V Film & Mixed Media  
ARC 404X Advanced Woodworking  
ARC 404Y Mind And Medium  
ARC 404Z Public Speaking & Presentation

ARC 4054 Contemporary Chinese Architecture  
ARC 4055 Project Implementation Process  
ARC 4056 Analyzing Architecture  
ARC 405C Seminar On Typology And Regionalism  
ARC 405D Greek & Roman Architecture  
ARC 405F Recent French Architecture  
ARC 405G Gothic Architecture  
ARC 405I Renaissance Architecture  
ARC 405J Contemporary ARC Issues in Europe  
ARC 405K Modern Vernacular  
ARC 405M Architecture of Russia  
ARC 405Q Housing Case Studies  
ARC 405V Film & Mixed Media  
ARC 405X Design and Media  
ARC 405Y Frank Lloyd Wright & Modernism  
ARC 405Z Designing for Social Change

ARC 406A Design Details  
ARC 406B Energy and Sustainability  
ARC 406C Sustainable Design  
ARC 406D Passive and Low Energy Design  
ARC 406F Building Codes, Est. & Cost Management

ARC 406G Energy & Sustain - Acoustics  
 ARC 406J Architectural Development  
 ARC 406K Intro to Design & Const Management

**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 semesters 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 422/522 History of Urbanization (3)**

A study of the systematic evolution of urban societies and places. The course will examine the evolution of the physical, social and economic components of urban societies from the protoneolithic village settlements to the development of the industrial city. Theory will be explored through case studies.

**ARC 424/524 Seminar on Modern Architecture in Latin America (3)**

The course combines general background readings on the subject with specific readings on a selected group of countries, architects and projects based on a thematic organization. The faculty presents introductory lectures, while class members will present the results of individual and team research and analysis as assigned. Some of the analysis will be graphical, some will be written; all presentations will require illustrations of the work(s) in question.

*Cross-listed with LAS.*

**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 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 451/551 Contemporary Architectural Theory and Practice (3)**

This seminar explores and critiques contemporary theories and practices that inform current domestic and global architectural works by considering the intellectual, cultural, and technological forces that shape them.

**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 581, 582, 583 Architecture Studio (6, 6, 6)**

**ARC 584 Architecture Studio (Off-Campus) (6)**

**ARC 490/590 Independent Studies (1-3)**

**ARC 601/602 Architecture Studio (6, 6)**

Professional-level architectural studio; variable topics.

**ARC 612 Graphic Media I (2)**

Begins the graphic media sequence for 500 level graduate studio students. Demonstrates 2-D hand based graphic tools and 3D techniques as design strategies that encompass creative expressivity, design analysis and representation through analytical, orthographic, and speculative drawings, media, and models. In addition to skill based learning objectives, introduces architecture design communication based in design history and contemporary theory.

*Concurrent registration in ARC 581 or approval of instructor required.*

**ARC 613 Graphic Media II (2-3; maximum 3)**

Objective includes the full breadth of design communication techniques such as hand-based processes, digital 2D processes and 3D modeling and introduces modeling software, as well as time-based processes such as video, animation and web presentation techniques. In addition to skill based learning objectives, ARC613 supports architecture design communication based in history and contemporary theory. The graphic media sequence of ARC 612, ARC 613, ARC 614 encompass creative expressivity, design analysis and representation through analytical, orthographic, and speculative drawings, media, and models.

*Concurrent registration in ARC 582 or approval of instructor.*

**ARC 614 Graphic Media III (2-3; maximum 3)**

Course completed in Spring in conjunction with ARC583 studio. Objective continues the full breadth of design communication techniques such as hand-based processes, digital 2D processes and 3D modeling and modeling software, as well as time-based processes such as video, animation and web presentation techniques. In addition to skill based learning objectives, ARC614 supports architecture design communication based in history and contemporary theory. The graphic media sequence of ARC 612, ARC 613, ARC 614 encompass creative expressivity, design analysis and representation through analytical, orthographic, and speculative drawings and models.

*Concurrent registration in ARC 583 or approval of instructor.*

**ARC 621 History of Architecture I (3)**

Thorough and systematic survey of the history of architecture, urban design, and allied arts across global contexts.



**ARC 622 History of Architecture II (3)**

Thorough and systematic survey of the history of architecture, urban design, and allied arts across global contexts.

**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 (1-9)**

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 Pre-Thesis Architecture Studio (6)**

Comprehensive, professional-level architectural studio with visiting critics. 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. Open to majors only.

**ARC 702 Thesis Architecture Studio (6)**

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 Creative Arts)

**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 140 Beginning Glass (1.5)**

Basic course to provide foundation exercises and instruction in various glass techniques such as kilnforming and some hot glass processes, ranging from fusing and beadmaking to casting.

**ART 147 Beginning Art Photography (1.5)**

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 (1.5)**

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 What is Graphic 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 (1.5)**

Basic drawing instruction to non-art majors. Exploration of line, value, media measurement, and composition.

**ART 160 Beginning Ceramics (1.5)**

Basic ceramic construction, composition, and firing techniques.

**ART 165 Beginning Metals (1.5)**

Introductory metalsmithing and design for the beginning student.

**ART 170 Basic Woodworking (1.5)**

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. Cross-listed with AMS. 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, IIB, Cul, 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, IIB, 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, IIB, H. CAS-B.

**ART 189 History of Western Dress (3) MPF**

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, IIB, H.

**ART 195 The Profession of Art Education (3)**

Introductory seminar to the field of Art Education as a career, foundations, professional identity, new technologies, classroom observations. All students welcome.

**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 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.

*Cross-listed with BWS.*

**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 121, 122, 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 Fundamentals of Interaction Design (3)**

This course covers foundational concepts of interaction design, combining coding language development with visual interface design for the production of engaging and functional interactive sites and applications. Visual and textual hierarchy for electronic media is addressed and development processes with a device-agnostic approach to information architecture and interface design are practiced.

*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 Art and Digital Tools I (3)**

A hands-on tour of ways in which computers can become creative tools for making art. Projects will familiarize students with video art, digital photo manipulation, electronics, computer programming and digital fabrication. An emphasis is placed on experimentation and developing personal creative process, as well as considering how digital tools integrate with hands-on techniques.

*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, mold fabrication, 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 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 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 171, or permission of instructor. Materials fee. 3 Lab. includes Lec.

### **ART 276 Introduction to the Art of the Black Diaspora (3) MPF**

Introduces visual arts produced by black artists in Africa, the U.S., and the Black Diaspora. Examines seminal creative ideas, philosophies, and movements and focuses on the work of key artists in analyzing the contextual significance of art in society. IIA, IIIB, Cul.

Cross-listed with BWVS.

### **ART 278 Text and Image in East Asian Buddhist 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 (3) MPF**

A study of the art and literature of China and Japan in the historical and religious context of popular Buddhism. IIIB, H. CAS-B.

Cross-listed with JPN.

### **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. Resource fee.

### **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. Offered only on the Hamilton campus.

### **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, IIB, Cul, H. CAS-B.

### **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 learning styles; planning of instructional strategies, communication, and assessment. Lecture/discussion/workshop/hybrid experiences for students majoring in or wishing to major 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/hybrid on course for students majoring in or wishing to major in art education.

### **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.

### **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.

*Recommended prerequisite:* ART 286.

### **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.

*Recommended prerequisite:* ART 286.

### **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.

**ART 314 Italian Renaissance (3) MPT**

Surveys the visual arts of Italy from 1300 to 1500 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.

**ART 315 High Renaissance and Mannerism (3)**

Information and insight toward an understanding of the major developments in the history of art from the late fifteenth through sixteenth century in Europe, Italy in particular. Called High Renaissance and Mannerism, the relationship of these trends with concurrent political events, social, religious, and philosophical ideas will be discussed at times to enhance this understanding.

**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.

**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.

*Cross-listed with LAS.*

**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.

**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.

**ART 320 Thematic Studio (3; maximum 12)**

Topics in art/drawing methodologies that are extensions and/or applications of skills and concepts offered in previous drawing courses. Thematic subjects include such topics as animation, experimental media, and advanced drawing.

*Prerequisite: ART 222 or permission of the 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 331/332 Painting II, III (3, 3)**

Painting problems using both representational and abstract approaches in various painting media. 3 Lab. includes Lec.

*Prerequisite: ART 231.*

**ART 340 Internship (0-20)**

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. 3 Lab. includes Lec.

*Prerequisite: ART 241.*

**ART 343 The Art of Visual Presentation (3)**

The content of this course covers the personal presentation techniques and technical skills necessary to craft presentations that communicate messages clearly, with persuasive effect. Explores presentation softwares, screen-based media types, and animation techniques that enhance the presentation of information.

*Prerequisite: ART/IMS 259.*

**ART 344 Personal Branding (3)**

In this course students will learn the general strategies and principles of branding. Projects will focus on how to promote oneself through such applications as a unique personal logo/mark, promotional video, resume, and social media. Special emphasis will be placed upon logo development and brainstorming. (Adobe Creative Cloud subscription is required).

*Prerequisite: ART/IMS 259.*

**ART 345 Graphic Design Prototyping (3)**

In this course students will learn the process of design thinking which they will then apply to layout for both print and web. Projects will result in prototypes that could be tested with the user (publications, posters, mobile apps, websites, etc.) Special emphasis will be placed upon typography. (Adobe Creative Cloud subscription is required).

*Prerequisite: ART/IMS 259.*

**ART 350 Illustration (3; maximum 6)**

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: ART 121 and 231, or permission of instructor.*

**ART 351 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.*

**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 + interior design.

*Prerequisite: ART 351.*

**ART 355 Applied Interaction 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 Photography II (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 358 Photography III (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 255 or permission of instructor.*

**ART 359 Art and Digital Tools II (3)**

A continuation of methods introduced in Art & Digital Tools I (ART/IMS 259). Personal methods will further develop while greater technical proficiency is pursued. Projects may include digital photo manipulation, video, electronics, computer programming and digital fabrication.

*Cross-listed with IMS.*

**ART 361 Ceramics II (3) MPT**

Pottery, design, wheel throwing, decoration, glazing, and firing. Raw materials introduction, lectures and applied. 3 Lab. includes Lec.

*Prerequisite: ART 261. Materials fee.*

**ART 362 Ceramics III (3) MPT**

Pottery and sculpture design, forming, wheel throwing, decoration, glazing, and firing. Clay and glaze materials and formulations covered. 3 Lab. includes Lec.

*Prerequisite: ART 261, 361 or permission of instructor. Materials fee.*

**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, stone-setting, forging, casting. 3 Lab includes Lec.

*Prerequisite: ART 264. Materials fee.*

**ART 365 Jewelry Design and Metals III (3) MPT**

Intermediate problems in design and process for jewelry, holloware and flatware. 3 Lab includes Lec.

*Prerequisite: ART 364. Materials fee.*

**ART 371 Sculpture II (3) MPT**

Studio problems based on concepts applied to various three-dimensional methods, techniques, and materials. 3 Lab. includes Lec.

*Prerequisite: ART 271. Materials fee.*

**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. 3 Lab. includes Lec.

*Prerequisite: ART 371. Materials fee.*

**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.

**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.

**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.

**ART 386 Art of the Weimar Republic (3)**

This class will trace developments in painting, photography, film, and architecture in Germany from 1918-1933. We will focus on connections between art and the historical and political events of this particularly turbulent time in German history. Artists to be studied include: Walter Gropius, Mies van der Rohe, Fritz Lang, Hannah Höch, Georg Grosz, August Sander, and Laszlo Moholy-Nagy. Relevant artistic movements include: Expressionism, Dada, the Bauhaus, and New Objectivity.

*Cross-listed with GER.*

**ART 389 The History of Photography (3)**

This course will trace central developments in photography's history, from its nineteenth-century origins to its present digital afterlife. Rather than attempting a comprehensive survey of the medium, we will examine a series of case studies taken from the diverse discourses in which photography functions, including art, science, law, journalism, criminology, urban planning, and entertainment. Particular attention will be paid to theoretical and methodological questions underpinning the medium.

*Recommended prerequisite: ART 188.*

**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 Field Study in Art and Architecture History (3)**

Structured experience outside the classroom; internship or study abroad. Restricted to majors who have completed the sophomore year.

**ART 395 The Art Teacher (3)**

Learning theory, aesthetics, art criticism, art history, and art media appropriate for the learning environment. Constructs of the creative process, observation and assessment methodologies, written and visual materials, processes applicable for learners P-21, presentation skills, best practices in teaching/learning.

*Prerequisites: ART 195, ART 295, ART 296, or permission of instructor.*

**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, assessments by cooperating teacher for the purpose of assisting the student teacher in practice teaching.

*Prerequisites: All Professional Ed and Art Ed requirements. May be taken last or second to last semester before graduation. Required overall GPA of 2.50 and expected GPA of 3.00 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. 3 Lab. includes Lec.

*Prerequisite: ART 321, 322.*

**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. 3 Lab. includes Lec.

*Prerequisite: ART 321, 322.*

**ART 431/531 Painting IV (3)**

Application of concepts, techniques, and composition through various painting media. Emphasis on a personalized statement by the student. 3 Lab. includes Lec.

*Prerequisite: ART 331, 332.*

**ART 432/532 Painting V (3)**

Application of concepts, techniques, and composition through various painting media. Emphasis on a personalized statement by the student. 3 Lab. includes Lec.

*Prerequisite: ART 331, 332.*

**ART 441/541 Printmaking IV (3)**

Emphasis on personal investigation in intaglio, lithography, silkscreen, or relief processes. 3 Lab. includes Lec.

*Prerequisite: ART 341, 342.*

**ART 442/542 Printmaking V (3)**

Emphasis on personal investigation in intaglio, lithography, silkscreen, or relief processes. 3 Lab. includes Lec.

*Prerequisite: ART 341, 342.*

**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. 3 Lab. includes Lec.

*Prerequisite:* nine semester hours in ceramics. *Materials fee.*

#### **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. 3 Lab. includes Lec.

*Prerequisite:* 12 hours in ceramics. *Materials fee.*

#### **ART 464/564 Jewelry Design and Metals IV (3; maximum 6)**

Advanced design and technical problems in jewelry, holloware, flatware, and/or other areas of individual interest. Emphasis on personal expression and research, portfolio development. 3 Lab. includes Lec.

*Prerequisite:* ART 365. *Materials fee.*

#### **ART 471/571 Sculpture IV (3)**

Advanced problems in sculpture requiring skill with sculpture processes and ability to interpret ideas three-dimensionally. 3 Lab. includes Lec.

*Prerequisite:* ART 372.

#### **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. 3 Lab. includes Lec.

*Prerequisite:* ART 471/571. *Materials fee.*

#### **ART 480 Seminar in Art History (3)**

Seminar for advanced students. Topics vary.

#### **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.

#### **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.

#### **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.

#### **ART 489/589 Art of the Late 20th Century (3) MPT**

Painting, sculpture, architecture, and allied arts from 1945 through post-modernism.

#### **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)**

Knowledge of artistic development (P-21) and the teaching role, used to develop extended length, performance based, curricular sequence concepts that meet/exceed Ohio standards. Content

appropriate for all learners developed through reflection on contemporary social and cultural constructs, current/relevant philosophies of teaching/learning, and best pedagogical practices. Open to Art Education Majors.

*Prerequisites:* ART 295, ART 296, and ART 395, or permission of instructor.

#### **ART 495/595 Art Education Practicum (3)**

Supervised participation in Practicum Art School site, development of proficiency in planning of instruction, effective communication, classroom and program assessment, and professional development.

*Prerequisites:* All preceding Art Ed courses or instructor permission.

#### **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:* 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**

Culminating class for Art and Architecture History majors. Discussions and projects that give students the opportunity to assimilate knowledge gained in the study of art history.

*Prerequisite:* senior in Art and Architecture History.

#### **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 advisor.

*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 650 Graduate Study in Experience Design (3-6; maximum 48)**

Use applied research to design, develop, deploy and test design solutions, gaining insight and knowledge by doing. Course structure will include short, intensive workshops with visiting designers, collaborative team-based projects, and individual design work.

**ART 651 Systems Design (3)**

Explores both theoretical and pragmatic approaches to aid the identification, evaluation, understanding, application and development of systems for addressing 'hard' and 'soft' problems. Addresses the evaluation and formulation of problems with both human and non-human factors as agents.

*Prerequisite: graduate status and acceptance into the program. Materials Fee.*

**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; Department of German, Russian, Asian and Middle Eastern Languages and Cultures)

**AAA 111 Religion and Popular Culture (3)**

This course 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.*

**AAA 201 Introduction to Asian/ Asian American Studies (3) MPF**

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. IIB, IIC, IIIB CUL, H. CAS-B, CAS-C.

**AAA 203 Global Religions of India (3) MPF**

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 is practiced in India and other parts of Asia. IIB, IIIB, CUL, H.

*Cross-listed with REL.*

**AAA 207 Asia and Globalization (3) MPF**

The Asian-Pacific region is one of the most dynamic, complex, and challenging focal points of world today. In the past half century, many countries in Asia have undergone significant political, economic, social, and cultural changes, which are tightly intertwined with the concepts and tenets of globalization. With countries such as China and India on the rise, and global superpowers such as Russia and Japan encountering their own modern challenges, the Asian continent has been facing a transformation that is at once a response to globalization and itself a powerful force influencing global community. Accordingly, the course highlights cross-cultural values through a comparative lens of Asia and globalization, and aims to study recent transformations in Asia and their impact on its own future and the world. The study will be framed both in the Asian internal context and in the external context of globalization. The course specifically focuses on, though is not limited to, how external global influence and the internal cultures of major Asian countries interact with each other in ways that uniquely mark and inform the economic, social, religious, educational, and cultural transformations in Asia. IIC, IIIB, CUL. CAS-B.

*Cross-listed with SOC.*

**AAA 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, IIIB, Cul. Cross-listed with BWS/PSY.*

**AAA 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)**

This is an intermediate level course which enables students to investigate and discuss interdisciplinary practices of knowledge creation and dissemination. Students will practice a variety of writing and other communication strategies necessary for the effective dissemination of ideas to interdisciplinary audiences and the general public, and can expect to gain experience in working with a wide spectrum of interdisciplinary research, tools and methods while engaging intellectually in interdisciplinary modes of thinking, reading, listening, and speaking.

*Cross-listed with AMS/BWS/LAS/WGS.*

**AAA 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. IIB, IIIA. CAS-B-LIT.

*Cross-listed with AMS and ENG.*

**AAA 313 Marriage Across Cultures (3)**

This class engages feminist theory and gender studies to explore the consequences of different types of marital formations (polygamous as well as monogamous) for the lives of women and men in selected Western and non-Western cultures.

*Cross-listed with REL/WGS.*

**AAA 351 Cultural Politics of Gender and Sexuality in Asian/America (3)**

Intensive interdisciplinary study of imaginative representations of the encounters between "Asia" and "America," broadly conceived, particularly the entangled relations among their diverse constituencies in the contexts of colonialism and globalization. Key topics include feminist critique of gendered violence and human rights issues; Euro-American militarism and sex tourism; the emergence of new categories of sex, gender, and kinship as lived experiences mediated by transnational consumer culture and institutional structures; masculinity and Asian diasporic nationalisms; pan-Asian movements against racism, colonialism, and neoliberalism both in Asia and the U.S.; and the emergence of new critical, artistic and aesthetic practices. CAS-B.

*Cross-listed with ENG/WGS.*

### AAA 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.*

### AAA 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 ENG. CAS-B-LIT.*

### AAA 410 Topics in Asian/Asian American Studies (3)

In-depth examination of political-economic relations, historical and socio-cultural formations, ethno-linguistic, rhetorical, and religious practices, and literary and artistic representations connecting and affecting Asia and communities of Asian descent in the U.S. and in the diasporas. Detailed descriptions of topics available from the Director of the Asian/Asian American Studies Program. CAS-B.

*Cross-listed with ENG 409.*

## 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: ENG 112 and 45 hours of credit toward graduation.*

### BIS 210 Special Topics in Integrative Studies (3; maximum 6)

Special Topics in Integrative Studies offers a rotating series of topics to meet the changing needs and interest of students and faculty. May be taken for credit more than once with different content and permission of instructor.

### 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) MPC

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.*

### BIS 410 Advanced Special Topics Seminar in Integrative Studies (3; maximum 6)

Topical offerings in Integrative Studies in emerging and established fields of interdisciplinary study such as Critical Animal Studies, Youth Studies, Area Studies, Critical Race Studies, and Environmental Studies. May be taken for credit more than once with different content and permission of instructor.

## BIOLOGY COURSES (BIO Arts and Science)

### BIO 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.

### BIO 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.*

### BIO 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.

*Prerequisite: BIO/CHM/MBI 102. Cross-listed with CHM/MBI.*

### BIO 105 Behavior of Companion Animals: Dog and Cat Behavior (3)

Examination of the evolution and behavior of two common companion animals, the domestic dog and cat. General principles of animal behavior will be briefly introduced followed by lecture and discussions of some topics in dog and cat behavior such as behavioral development, communication, aggressive behavior, mating behavior, and social interactions. Discussions and readings will include current ideas on benefits to humans from associations with companion animals. The course will also contain some of the current ideas about dealing with problem behavior in these popular companion.

### BIO 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. (Offered only at Hamilton and Middletown campuses.) 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

### BIO 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.

### BIO 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. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

*Cross-listed with MBI.*

### BIO 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. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB. CAS-QL.

*Cross-listed with MBI.*

### BIO 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. IVA.

### BIO 126 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.

### BIO 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.

### BIO 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.

### BIO 161 Principles of 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. Not open to Biology, Botany, or Zoology majors. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB. CAS-QL.

**BIO 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 Biology, Botany or Zoology majors. (Offered at Hamilton and Middletown campuses.) 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

**BIO 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 Biology, Botany or Zoology majors. (Offered at Hamilton and Middletown campuses.) 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite:* BIO 171.

**BIO 176 Ecology of North America (3) MPE, 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.

**BIO 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.

**BIO 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. 3 Lec. 1 Lab. CAS-D/LAB.

**BIO 201 Human Anatomy (4)**

Anatomy of typical vertebrates. 2 Lec. 2 Lab. CAS-D/LAB.

**BIO 203 Introduction to Cell Biology (3) MPT**

Introductory study of eukaryotic cell structure and function.

*Prerequisite:* BIO 114, BIO/MBI 116, or BIO 191.

**BIO 204 Evolution of Plant Biodiversity: Genes to Biosphere (4) MPT**

Along with BIO 203, provides a foundation for botany majors. 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. Students may not receive credit toward the major for both BIO 204 and BIO 206.

*Prerequisite:* BIO/MBI 115 or BIO 191.

**BIO 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.

**BIO 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. Students cannot receive credit toward the major for both BIO 204 and 206.

*Prerequisite:* one year of biological science.

**BIO 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.*

**BIO 209 Fundamentals of Ecology (3) MPT**

Interrelationships between organisms and their environments.

*Prerequisite:* One course in the biological sciences (BIO or MBI); or permission of the instructor.

**BIO 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:* BIO/MBI 115, BIO/MBI 116, BIO 131, BIO 176 or BIO 191.

**BIO 232 Human Heredity (3) MPT**

Introduction to the basic principles of genetics and their relevance to human society. Not open to Biology, Botany, or Zoology majors. (Offered at Hamilton and Middletown campuses.)

*Prerequisites:* Completion of a minimum of six semester hours of biological sciences, which must include one of the following: BIO 114, BIO/MBI 116, BIO 172 or MBI 161.

**BIO 241 Botanical Principles in Landscape Gardening (3)**

Plant materials in relation to home, garden, and landscape uses.

**BIO 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:* BIO/MBI 115, BIO/MBI 116 or BIO 191; or permission of instructor.

**BIO 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.

**BIO 256 Introduction to Programming for the Life Sciences (3)**

This course serves as an introduction to programming designed specifically for life science majors, targeting the specific skills and techniques commonly needed and explaining the fundamental methods of working with biological data while centering programming assignments around topics of interest to those studying the life sciences. Topics covered include basic programming techniques, representation and manipulation of genomic and protein sequence data, and the automated interface with BLAST and the NCBI GenBank database.

*Cross-listed with CSE/MBI.*

**BIO 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.

**BIO 305 Human Physiology (4) MPT**

Study of general physiological principles necessary for basic understanding of life processes. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite:* one year of chemistry, junior standing, and BIO 203 or MBI 365, or permission of instructor.

**BIO 306 Basic Horticulture (3)**

Principal factors involved in the production of vegetables and fruits. Senior standing recommended.

**BIO 311 Vertebrate Zoology (4) MPT**

Taxonomy and life histories with emphasis on local fauna. 2 Lec. 2 Lab. CAS-D/LAB.

**BIO 312 Invertebrate Zoology (4) MPT**

Morphology and taxonomy with emphasis on local fauna. 2 Lec. 2 Lab. CAS-D/LAB.

**BIO 314 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:* a course in biological science.

**BIO 320 Directed Research (1-3)**

Problems involving library, field, or laboratory work. Only three semester hours of BIO 320 can be used to fulfill advanced hour requirement.

**BIO 325 Pathophysiology (4) MPT**

Study of relationship between normal body functioning and physiologic changes that occur as the result of illness. Not open to Biology, Botany, or Zoology majors.

*Prerequisite:* BIO 172 or equivalent.



**BIO 333 Field Ecology (3)**

Experience in collection, analysis, and interpretation of ecological data. 1.5 Lec. 1.5 Lab. CAS-D/LAB.

*Prerequisite:* BIO 209. Cross-listed with MBI.

**BIO 340 Internship (0-20)**

Internship program to supplement basic requirements for a Biology, Botany or Zoology major or minor by providing credit for practical work experience. Only three hours of internship or independent study may count toward the degree.

*Prerequisite:* internship agreement with biology faculty member with 7 credits in biological sciences and 2.50 GPA. See chair or chief departmental advisor.

**BIO 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 biology course, or permission of instructor.

**BIO 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. 2 Lec. 2 Lab.

*Recommended prerequisite:* BIO 115.

**BIO 361 Patterns in Development (4) MPT**

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. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite:* BIO 203.

**BIO 364 Molecular Techniques (2)**

Emphasizes techniques of modern molecular genetics, including gel electrophoresis, hybridization, gene cloning, polymerase chain reaction, quantitative gene analysis, drosophila genetics, DNA sequencing, STR analysis, protein fingerprinting, and Mutagenesis. Students cannot receive credit for both BIO/MBI 364 and BIO /MBI 465, or BIO 464.

*Prerequisites:* BIO 114 or BIO 116. Co-requisites: BIO 342. Cross-listed with MBI.

**BIO 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.

*Recommended prerequisite:* ATH 255 or BIO 206; junior or senior status; or permission of instructor. Cross-listed with ATH.

**BIO 400 Capstone Seminar: Contemporary Issues in Biology (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.

**BIO 401/501 Plant Ecology (3) MPT**

Studies of plant communities, populations, and individuals in relation to their environment.

*Prerequisite:* one of the following: BIO/MBI 115, BIO 131, BIO 176 or BIO 209; or by permission of instructor.

**BIO 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:* BIO 203 or permission of instructor.

**BIO 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:* BIO 402 and 425; or permission of instructor.

**BIO 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.

**BIO 408/508 Ornithology (4)**

General biological principles of birds, their classification, evolution, adaptations, ecology, behavior, and relationship to humans. 2 Lec. 2 Lab. CAS-D/LAB.

*Prerequisite:* two advanced courses in biological sciences or permission of instructor.

**BIO 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.

**BIO 410/510 Mammalogy (4)**

Examines the evolution, taxonomy, morphology, behavior and distribution of mammals. Emphasis is on placing modern mammal species in an evolutionary and comparative context. 2 Lec, 2 Lab. CAS-D/LAB.

*Prerequisite:* at least 14 hours of biology.

**BIO 411/511 General Entomology (4)**

Introductory study of insects. 2 Lec. 2 Lab. CAS-D/LAB.

*Prerequisite:* BIO 115 or 314; or equivalent.

**BIO 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.

**BIO 422/522 Evolutionary and Population Genetics (4)**

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:* BIO 342 or equivalent.

**BIO 424/524 Advanced Experimental Techniques in Structural and Functional Genomics (4)**

Theory and application of modern biological instrumentation and techniques. Basic and advanced skills including use, maintenance and calibration of biological instruments.

*Recommended prerequisites:* BIO/MBI 115 or BIO/MBI 116 or BIO 191 or MBI 201 or MBI 202 or BIO 113 or BIO 114 or equivalent; CHM 141 and CHM 142 or equivalent; or permission of instructor. Cross-listed with CHM/MBI.

**BIO 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:* a course in biological science.

**BIO 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.

*Recommended prerequisite:* BIO/MBI 115, BIO 191, or higher, GEO 121 or higher; or permission of instructor. Cross-listed with GEO.

**BIO 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 field work focus on current research and conservation issues. Required field trip.

*Recommended prerequisite:* BIO/MBI 115, BIO 191, or higher; GEO 121 or higher; or permission of instructor. Cross-listed with GEO.

**BIO 435/535 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:* BIO 305 or equivalent; or permission of instructor.

**BIO 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 BIO 342; or equivalent.



**BIO 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:* BIO 203 and organic chemistry.

**BIO 451/551 Conservation Education and Community Engagement (3)**

Theory and practice of participatory education, collaborative research, and conservation action for positive ecological, educational, and social change. Includes community engagement projects and case studies in diverse local and global contexts.

*Prerequisite:* at least one course in the life sciences at the 200 level or above.

**BIO 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. 3 Lec. 1 Lab. CAS-D/LAB.

*Recommended prerequisite:* BIO 305 and 361 or BIO 203 or 342, CHM 242 or 332; or permission of instructor.

**BIO 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. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite:* BIO 209, 305, or equivalent, and permission of instructor.

**BIO 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. CAS-D/LAB.

*Prerequisite:* BIO 305 and CHM 241.

**BIO 455 Comparative Exercise Physiology (3)**

Study of muscular, cardiovascular and pulmonary systems in a diversity of organisms (vertebrates and invertebrates). Focus on activity and locomotion with emphasis on comparative methods.

*Prerequisite:* BIO 305 or KNH 468; or permission of instructor. Cross-listed with KNH.

**BIO 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:* BIO 305.

**BIO 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.

*Prerequisite or co-requisite:* BIO 457.

**BIO 459/559 Methods in Neurophysiology (1) MPC**

Application of basic techniques in neurophysiological research. Includes collection, analysis, interpretation and presentation of experimental results and review of the primary literature.

*Prerequisite:* BIO 305; or graduate standing. Concurrent course: BIO 469.

**BIO 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:* BIO 209 and 305, or equivalent, and a year of organic chemistry or permission of instructor.

**BIO 463/563 Limnology (4) MPT**

Physical, chemical, and biological characteristics of freshwater ecosystems. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite:* BIO 209 or equivalent, a year of chemistry, or permission of instructor.

**BIO 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. Emphasis is on techniques used in modern cell and molecular biology.

*Prerequisite or co-requisite:* BIO 342; or permission of instructor.

**BIO 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. 2 Lec. 2 Lab. CAS-D/LAB.

*Prerequisite:* nine hours of advanced courses in biological science and a course in statistics; or permission of instructor.

**BIO 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.

*Recommended prerequisites:* programming course and BIO 116, or BIO 342; or permission of instructor. Cross-listed with CHM/CSE/MBI.

**BIO 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.

*Prerequisite:* BIO 209 or BIO 401; or equivalent.

**BIO 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.

*Prerequisite:* BIO 305 or equivalent (for 469); graduate standing (for 569).

**BIO 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.

*Prerequisite:* BIO 305 and a 200-level (or higher) course in molecular/cell biology.

**BIO 481/581 Theory of Electron Microscopy (2)**

Principles and theory of scanning and transmission electron microscopy and advanced microscopies.

**BIO 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.

*Prerequisite or co-requisite:* BIO 481/581 and permission of instructor.

**BIO 483/583 Transmission Electron Microscopy Laboratory (3)**

Practical course in transmission electron microscopy: specimen preparation microscope usage, data collection, and photographic plate preparation.

*Prerequisite or co-requisite:* BIO 481/581 and permission of instructor.

**BIO 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.

*Prerequisite:* BIO/MBI 116 or MBI 201 or BIO 342 or CHM 332 or CHM 433; or permission of instructor. Cross-listed with CSE 456/556 and MBI 485/585.

**BIO 490 Botany Capstone Seminar (1) MPC**

This seminar meets weekly and accompanies directed study or independent research for students interested in graduate or professional school. Two semester hours of independent study or internship are required to complete the three-hour Capstone requirement. Offered during summer term.

**BIO 491 Seminar in Biology (1; maximum 2)**

Review and discussion of topics in biology.

*Prerequisite:* senior biology, botany or zoology major; or permission of instructor.

**BIO 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-C.

*Prerequisite: permission of the instructor. Cross-listed with GEO.*

**BIO 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 BIO; for others, permission of instructor. Cross-listed with ATH.*

**BIO 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 BIO; permission of instructor. Cross-listed with ATH.*

**BIO 601 Seminar for 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 the biological sciences.

**BIO 603 Cell Molecular and Structural Biology First Year Graduate Seminar (1)**

Introduction to methods of searching literature, preparation of audiovisual materials, preparation of grant applications and manuscripts, developing good presentation skills, and other aspects of the profession. Seminar for beginning graduate students in the Cell Molecular and Structural Biology Program. Cross-listed with CHM/MBI.

**BIO 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.*

**BIO 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.*

**BIO 620 Graduate Research (1-12; maximum 14)**

Research or special problems in the biological sciences.

**BIO 621 Advanced Plant Taxonomy (3)**

Principles of classification with emphasis on modern approaches to study the evolution and relationships of flowering plants. Offered infrequently. 2 Lec. 1 Lab.

*Prerequisite: course in taxonomy or permission of instructor.*

**BIO 632 Biology in the Age of Technology (3)**

Biology in the Age of Technology is a graduate seminar that considers current and foundational issues in biological technology. Students explore established and emerging technologies related to biological science, which have profound implications for environmental studies and learning. Emphasis will be placed on how technology can be used to deepen public engagement in science and conservation. Specific topics will be suited to the current state of the field.

**BIO 633 Issues in Biodiversity (2)**

Issues in Biodiversity is a graduate seminar covering current and foundational issues in biodiversity. The seminar will focus on the forces that create and sustain biodiversity, patterns of biodiversity over time and space, and human impacts on biodiversity, with specific topics suited to the current state of the field.

**BIO 635 Leadership in Science Inquiry (2)**

Leadership in Science Inquiry is a graduate seminar that challenges students to explore a leadership dimension within their professional careers. Students in this course demonstrate collaborative leadership in an area appropriate and specific to their master's studies, while providing critical peer review of others' work and projects.

**BIO 636 Professional Media Workshop (2)**

Professional Media Workshop is a graduate seminar in which students focus on increasing scientific writing skills, on critically reflecting about their own and others' work, on considering how ideas can change a field of practice, and on developing a better understanding of authorship and its contribution to professional and personal development.

**BIO 637 Master's Capstone (2)**

Master's Capstone is the cornerstone exit course of the Advanced Inquiry Program (AIP) and the Global Field Program (GFP) master's degrees from Miami University. Students synthesize, analyze, share, discuss, and make final reflections about the projects and artifacts they have created throughout their master's experience and how those projects have helped lead them to a deeper understanding of the master's program core tenets of local, regional and global understanding; inquiry; environmental stewardship; and community participation/voice.

**BIO 641 Earth Expeditions: Advanced Field (7)**

The Earth Expeditions: Advanced Field course allows students to more fully and deeply explore community-based conservation, participatory education, and inquiry at an international conservation site they have previously visited during a past Earth Expeditions course. Possible field sites for the Advanced Field course include Baja, Belize, Borneo, Costa Rica, Guyana, Hawai'i, Kenya, Mongolia, Namibia, and Thailand (see [EarthExpeditions.org](http://EarthExpeditions.org) for detailed descriptions of each field site). Prior to and following the field experience, students complete coursework via the Dragonfly Workshops' Web-Based Learning Community as they apply experiences to their home institutions.

**BIO 642 Amazon: Avian & Tropical Ecology (7)**

In the Amazonian Neotropical regions of Peru, reality has attained mythic proportions: more than 400 species of mammal, 1,300 bird species, 3,000 fish, 40,000 plants, and 2.5 million insect species. And still counting. Why is this area of South America the most diverse on the planet? How have the varied human groups that inhabit this region adapted to their unique environments? And perhaps the most relevant question for life on Earth, what is the future of the Amazon? Students travel to the Peruvian Amazon rainforest and work with educators, researchers, and local communities to better understand the evolution and maintenance of biodiversity in this region, and to experience firsthand the effects of human interventions in the Amazon, from deforestation and urbanization to restoration efforts by local groups. Prior to and following the field experience in the Amazon, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 643 Australia: Great Barrier Reef (7)**

One of the seven wonders of the natural world, the Great Barrier Reef lies in the clear blue waters off the northeast coast of Australia. This complex reef system is not only the world's greatest expanse of coral, it is the Earth's largest living structure, a massive, beautiful, and ancient biological phenomenon of bewildering diversity and immense ecological significance. This graduate course is offered jointly with Reef HQ Aquarium, Australia's National Education Centre for the Great Barrier Reef. We sleep near the corals in the aquarium itself, venturing forth on several excursions for direct research on the Great Barrier Reef, and hiking in some of Australia's unique terrestrial habitats. Discussion topics include marine science issues, citizen engagement in marine science and environmental stewardship. Prior to and following the field experience in Australia, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 644 Baja: Field Methods (7)**

Students discover the rich waters and terrestrial ecosystems of Baja's UNESCO World Heritage site and biosphere reserve on the Sea of Cortez. Bahía de los Ángeles is a unique ecoregion with remarkable marine and terrestrial environments. Students also explore Rancho San Gregorio, a family-owned ranch located in a small canyon where its isolation and climate make it a hotspot for desert investigations. Students gain proficiency in applying field methods to ecological questions and conservation practice. A premise of this course is that field methods are not only essential for ecological research, they can serve as the basis for participatory education, public engagement in science, and community-based environmental stewardship. Many groups, from teachers leading schoolyard ecology to parataxonomists involved in ethnobotanical research, share a need for reliable information obtained through robust field methods to build understanding and to promote informed action. Prior to and following the field experience in Baja, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 645 Belize: Approaches to Environmental Stewardship (7)**

Students join our partner, the Belize Zoo, and explore diverse terrestrial, coastal, and coral reef communities of Belize, while learning about conservation programs on such species as harpy eagles, jaguars, manatees, and howler monkeys. Possible

investigations include monitoring manatee population dynamics, human influence on coral reefs, aquatic mangrove species sampling, and species behavior studies at the Belize Zoo. Discover the power of inquiry to generate knowledge and inspire conservation. All students will have the chance to conduct an investigation of the local ecosystem, asking their own questions, collecting data, and presenting conclusions. Prior to and following the field experience in Belize, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 646 Borneo: Primate Conservation (7)**

Borneo's primate community is exceptionally rich, including proboscis monkeys, which occur only in Borneo, leaf monkey, macaque, gibbons, tarsier and slow loris. Of greatest conservation concern is the orangutan, which occurs naturally on only two islands in the world, Borneo and Sumatra, and is under increasingly severe pressure, primarily from habitat loss. The orangutan, the only great ape in Asia, may completely vanish from the wild within two decades. Partnered with the Woodland Park Zoo, we will join researchers from the NGO Hutan and the Danau Girang Field Centre, and villagers of the Kinabatangan region who are responsible for model community-based efforts to preserve orangutans, Bornean pygmy elephants, and other species. In addition to exploring primatological field methods, students will work with local groups and develop new ways to engage communities worldwide in saving orangutans and other wildlife. Prior to and following the field experience in Borneo, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 647 Guyana: Local Wisdom & Conservation (7)**

Guyana's rain forests are part of the Guiana Shield considered one of the last four Frontier Forests in the world. Guyana is famous for its relative abundance of iconic Amazonian species such as jaguars, arapaima (a "living fossil" and one of the largest freshwater fishes in the world), harpy eagles, giant anteaters, giant river otter, and the giant water lily. Guyana is also culturally and ethnically diverse. We will spend most of our time with the Makushi, an indigenous group that has lived in these forests and savannas for thousands of years. The Makushi and their lands face a striking transition as the forces of development provide new opportunities and challenges, the greatest perhaps being the rapid extinction of traditional knowledge. Conscious of the value of indigenous and non-indigenous knowledge, Guyana's Makushi people are becoming masters of straddling both worlds. Prior to and following the field experience in Guyana, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 648 Hawai'i: Saving Species (7)**

The extraordinary island ecosystems of Hawai'i evolved in isolation over millions of years, and the islands have long been home to species that occur nowhere else on the planet. However, since the arrival of humans, native species have been under tremendous threat, and by many measures Hawai'i is becoming one of the United States' most profound conservation failures. Habitat destruction, environmental degradation, introduced species, and other forces have made Hawai'i a global center for extinction. Students in this course will join with San Diego Zoo Global (SDZG), Project Dragonfly, and Hawaiian partners to explore what it takes to save species in the wild. We will focus especially on the inspirational work of SDZG's Institute for Conservation Research, which uses science, education, and community programs to rescue species from the brink of extinction. We expect Earth Expedition's Hawai'i program to immerse graduate students and local partners in developing and testing site-specific methods of community engagement to sustain ecological and social health. Prior to and following the field experience in Hawai'i, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 649 Kenya: Wildlife & People in Integrated Landscapes (7)**

The South Rift Valley of Kenya is one of the most spectacular wildlife areas on the planet. Project Dragonfly has partnered with the Cincinnati Zoo & Botanical Garden and the African Conservation Centre to advance community-based conservation in this dynamic landscape. This effort builds on the decades-long research of Dr. David Western, former head of the Kenya Wildlife Service, and the centuries-long research of the Maasai pastoralists, who have long co-existed with wildlife in an open grassland ecosystem populated by elephants, lions, giraffes, zebra, wildebeests, and a remarkable diversity of other species. With the

rise of nontraditional lifestyles, private ranches, and fenced lands that prevent needed wildlife migrations, communities of the South Rift have recognized the need to understand the impact of these changes and to work together for a better future. Join Kenyan conservationists, educators, community leaders, and youth to study sustainable approaches to human-wildlife coexistence. Prior to and following the field experience in Kenya, students will complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 650 Seminar in Molecular Biology (1)**

Discussion of current literature in molecular biology.  
*Prerequisite: graduate standing. Cross-listed with CHM/MBI.*

**BIO 651 Mongolia: Steppe Ecology & Civic Media (7)**

Students travel to Mongolia, the "Land of Blue Sky." The birthplace of the Mongol Empire, the largest contiguous empire in human history, Mongolia is now a vibrant democracy and home to an open wilderness that has few parallels in the modern world. We will explore the great steppes, and especially engage in the conservation story of two key steppe species: Pallas' cats and Przewalski's horse. Pallas' cats are important steppe predators whose conservation provides insights into the challenges facing the survival of small wild cats worldwide. Przewalski's horse, also called takhi, are considered to be the only true wild horse left in the world. We will join research on an ambitious reintroduction project based in Mongolia that has returned this remarkable species to its former homeland after being driven to extinction in the wild. Prior to and following the field experience in Mongolia, students will complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 652 Thailand: Buddhism & Conservation (7)**

Students travel to Thailand to investigate this country's astonishing Old World rain forests and diverse cultural environments. This course will address key topics in ecology while exploring emerging models of conservation and education. Possible research projects include Buddhism and the environment, indigenous ecological knowledge, spiritual connections to nature, and community forests. Discover the power of inquiry to generate knowledge and inspire conservation. All students conduct an investigation of the local ecosystem, asking their own questions, collecting data, and presenting conclusions. Prior to and following the field experience in Thailand, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 653 India: Species, Deities & Communities (7)**

Students journey to India through the rich ecological, cultural, and spiritual landscapes of the Western Ghats, exploring sacred groves and forest temples where the fate of wildlife, people, and deities meet. The Western Ghats region is well known to conservationists as a biodiversity hotspot, home to diverse local ecosystems with an abundance of plant and animal species found nowhere else. The existence of sacred groves in the Western Ghats predates recorded history. For social scientists, sacred groves are valued as centers for community life. For the spiritually inclined, sacred groves transcend earthly bounds, allowing people to commune with gods and other powerful beings that offer protection, enlightenment, absolution, or guidance. In this course, we seek to better understand the multifaceted relationship between people and nature, and we address specific questions about a sustainable future. Prior to and following the field experience in India, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with IES.

**BIO 654 Foundations of Inquiry (3)**

This course engages students in exploring the foundations of inquiry-based teaching and learning while students gain a new familiarity with Advanced Inquiry Program (AIP) Master Institution (MI) facilities as informal science education settings. Through making observations on zoo grounds, developing comparative questions, devising investigations to answer those questions and communicating results, participants will experience the full process of inquiry and will learn how to guide this process with their own students and in their own communities. This type of firsthand, experiential learning encourages independent and critical thinking, increasing the communities' awareness and concern for the local environment and its inhabitants. We will engage in activities that demonstrate the applications of inquiry in the classroom, on zoo grounds, in the schoolyard and other settings. Through this course, students will develop the investigation, critical reflection, and

collaboration skills needed to lead inquiry-driven learning for diverse communities. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 655 Master Plan in Action (2)**

The AIP Master Plan (MP) represents a student's ideas and areas of interest as those ideas relate to the student's professional and community goals. By writing a Master Plan, students are able to focus their AIP journey and visualize the actions and steps that they might take toward completing their master's degree during the 2.5- to 5-year timeframe. During this course with guidance and input from peers and the AIP Cohort advisor, students work on completing their Master Plans. This method ensures that students have a workable plan that helps them anticipate ways to incorporate the projects they create as part of their AIP experiences into their professional and life goals. Students will also think about the common threads and program tenets among the projects in this cohesive body of work, which ultimately becomes their final master's portfolio due as the culminating experience at the end of their degree. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 656 Environmental Stewardship in My Community (3)**

Students in this course investigate environmental stewardship, research science and conservation opportunities and solutions in their local communities, practice inquiry-based learning, develop a conservation project to be used in their classroom or community, and reflect on ecological and carbon footprints. At the end of this course, students will have a solid understanding of community-based conservation, with a particular emphasis on current issues facing local habitats in the communities where they live. Students will also explore and begin to design stewardship strategies for empowering their own students or community members to generate solutions and take action. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 657 Regional Ecology (3)**

Through both zoo-based and field-based experiences, this course explores regional wildlife conservation issues, as well as field investigation techniques that scientists and citizens can use to study and conserve local ecoregions and wildlife. Students will be exposed to observational and experimental approaches and will practice field investigation techniques that can provide rigorous, engaging inquiry experiences for students. Student-conducted investigations will be used to contribute to local ecological knowledge by describing natural systems, noting differences in habitats, and identifying environmental trends and issues. This course focuses on different ecoregions in the area and highlights different conservation issues or themes based on that ecoregion. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 658 Ecophysiology (3)**

Students in this course will explore the ways in which humans can (and do) emulate systems and designs found in nature to create materials, medicines, social systems, computers and so much more. Students will fine tune their observation skills and complete a design challenge using nature as their guide. Through this course, students will develop their observation and collaboration skills and will acquire research experience in the life sciences on such topics as the principles of ecophysiology, form and function of organismal adaptations, phenotypic and behavioral plasticity, and maintenance of homeostasis. Students will think critically and scientifically about the ways in which nature can benefit humankind through technological inspiration and solutions to environmental problems. Students will apply what they have learned as they develop curricula and create design challenges for professional use. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 659 Great Lakes Ecosystems (3)**

The focus of this course is the study of the biology of the Great Lakes watershed, combining classroom work with field science inquiry and research. In addition to exploring the general function of watersheds, students become familiar with historical and contemporary human influences on ecosystems within the watershed basin, and they discuss and understand negative human impacts including point and non-point source pollution, multiple-stressors, "urban stream syndrome," and local sewage treatment and its relationship to the basin. Students gain skills observing and describing biotic and abiotic characteristics of area watershed ecosystems and understand the status of threatened and endangered species in the watershed basin. This is a hybrid course

with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 662 Animal Behavior & Conservation (3)**

Investigations of animal behavior comprise a rich field of study that began as a means to survival for early humans. It has now become a captivating field of scientific study in its own right. Invertebrates, birds, mammals, reptiles, amphibians, and other animals are ideal for comparative observational studies on topics ranging from complex behaviors and adaptations to public engagement with conservation. Students in this course investigate animal behavior through direct observation of the zoo's diverse animal species to explore key questions about how and why species act the way they do in different situations. This course will provide a foundation for understanding ethological research methods and animal conservation issues that can be applied and adapted to increased understanding about animal welfare and wildlife conservation in local educational and community settings. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 667 Conservation Research at Living Collection Institutions (3)**

This course provides students with an overview of conservation research conducted in zoological, reserve, aquaria and other ex situ settings. Students will explore key science concepts within the contexts of wildlife conservation, the imperative of in-situ conservation, the multi-disciplinary nature of science, and hands-on conservation research. Participants will learn about current research in the fields of genetics, reproductive physiology, disease diagnostics, ecology, and animal behavior. Course themes explore sustainable population maintenance, wildlife health, bioresource banking, restoration ecology, reintroduction biology, and the role of zoos, reserves and aquaria in conservation. This is a hybrid course with interaction on-site and in Dragonfly's web-based learning community.

#### **BIO 668 Biology Through Inquiry (3)**

This course will explore fundamental topics in biology from a student-driven, inquiry-based perspective. Course topics include cell biology, plant biology, DNA and gene expression, evolution, diversity of life and classification, populations, communities, and ecosystems. Students will conduct mini-inquiries throughout the course, helping to link core concepts to their everyday lives. Through collaborative discussions, students will further their understanding of these key concepts and articulate relationships between biology and many of the major challenges currently facing humanity. Finally, students will conduct their own biological investigation, developing skills in experimental design, data collection, and communication of findings. This course occurs in Dragonfly's web-based learning community.

#### **BIO 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.*

#### **BIO 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.

*Prerequisite:* at least one course in general ecology and general chemistry. *Cross-listed with MBI.*

#### **BIO 689 Pedagogy For Graduate Students (1)**

Introduction to teaching for new graduate students. Role of the graduate teaching assistant, teaching methodology and good teaching practices are covered.

*Prerequisite:* acceptance into one of the graduate programs associated with the department. *Summer only.*

#### **BIO 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](http://www.EarthExpeditions.org). Cross-listed with GLG/IES.*

**BIO 692 Namibia: Great Cat Conservation (7)**

Students join a summer field course in Namibia, Africa, to connect with the Cheetah Conservation Fund, the global center of cheetah conservation worldwide; 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](http://www.EarthExpeditions.org). Cross-listed with GLG/IES.

**BIO 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.

*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](http://www.EarthExpeditions.org). Cross-listed with GLG/IES.

**BIO 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.

*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](http://www.EarthExpeditions.org). Cross-listed with GLG/IES.

**BIO 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.

*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](http://www.EarthExpeditions.org). Cross-listed with GLG/IES.

**BIO 696 Primate Behavior & Conservation: Earth Expeditions (3)**

Students will complete a semester-long research project to investigate primate conservation and behavior through direct observation of prosimians, monkeys, and apes at the Cincinnati Zoo & Botanical Garden.

*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](http://www.EarthExpeditions.org). Cross-listed with GLG/IES.

**BIO 700 Research for Master's Thesis (1-12; maximum 12)**

Research in biology for those who successfully defend their master's thesis proposal.

*Prerequisite:* undergraduate biological science major and related scientific subjects.

**BIO 710 Advanced Seminar (1; maximum 4)**

Discussion of current problems and literature.

**BIO 720 Doctoral Research (1-12; maximum 14)**

Research performed by doctoral student prior to successful completion of doctoral comprehensive examination.

**BIO 750 Advanced Topics in Biology (1-5; maximum 20)**

Study of specialized topics from current research.

**BIO 790 Research in Biology (1-8; maximum 12)****BIO 850 Research for Doctoral Dissertation (0-15)****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, theatre, art, etc. Covers theories, research, methodologies, and practice of Africana studies. Students develop historical and contemporary understanding of the African Diaspora. IIC, Cul, H. CAS-C.

**BWS 156 Introduction to Africa (4) MPT**

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. IIB, CUL.

**BWS 181 Introduction to Civil Rights and Social Movements (1)**

This course provides an introduction to the theories, concepts, and realities of civil rights and social justice from the perspective of the African Diaspora. The course will allow students to interrogate various social movements that have occurred both within the United States and Africa. Several specific civil rights, colonial movements, and post colonial projects will be explored as they highlight the interplay between various groups, leaders styles, and methods of building movements.

**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. IIB, GCRS, CUL.

*Cross-listed with FST/LAS/MUS/POR.*

**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. IIC, Cul, H.

*Cross-listed with GEO/REL.*

**BWS 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. IIC, IIB, Cul.

*Prerequisite:* PSY 111. *Cross-listed with AAA/PSY.*

**BWS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)**

This is an intermediate level course which enables students to investigate and discuss interdisciplinary practices of knowledge creation and dissemination. Students will practice a variety of writing and other communication strategies necessary for the effective dissemination of ideas to interdisciplinary audiences and the general public, and can expect to gain experience in working with a wide spectrum of interdisciplinary research, tools and methods while engaging intellectually in interdisciplinary modes of thinking, reading, listening, and speaking.

*Cross-listed with AAA/AMS/LAS/WGS.*

**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.*

**BWS 222 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 CLS.*

**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. IIB, Cul, H.

*Cross-listed with HST.*

## BLACK WORLD STUDIES COURSES (BWS Arts and Science)

**BWS 101 Introduction to Strategic Learning Tools in BWS (1)**

Provides students with basic skills for social science and humanities research, writing, note and test taking and orients students to the unique forms of research and knowledge basis specific to Black World Studies.

**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. IIB, Cul, H.

*Cross-listed with HST.*

**BWS 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.

*Cross-listed with ART.*

**BWS 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)**

Development of European slaving activity in the African continent in the 15th through 19th centuries. Emphasis on the activities of Portuguese, Spanish, English, French and Dutch slavers, including the Middle Passage and also the less-studied slave trade in the Mediterranean and Indian Ocean. Identifies the economic forces, as well as the social consequences, of the ongoing slave trade.

*Cross-listed with HST/LAS.*

**BWS 265 Critical Inquiry: Penny Lecture Series (2)**

Weekly lectures given by different Black World Studies Affiliates. Credit/No Credit.

*Cross-listed with GTY/SJS/SOC.*

**BWS 267 National Cinemas: African Film (3)**

Explores the cinematography of Black Africa. Topics may vary but will focus on the social and ideological implications of African cinema and the way films produce a critique of cultural mores.

*Cross-listed with FST.*

**BWS 276 Introduction to the Art of the Black Diaspora (3)**

Introduces visual arts produced by black artists in Africa, the U.S., and the Black Diaspora. Examines seminal creative ideas, philosophies, and movements and focuses on the work of key artists in analyzing the contextual significance of art in society.

*Cross-listed with ART.*

**BWS 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. IIC, H.

*Cross-listed with KNH/SOC.*

**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.*

**BWS 307 The Middle East: Anthropological Perspectives (3) MPT**

Survey and analysis of various cultural groups in contemporary Southwest Asia and North Africa.

*Cross-listed with ATH.*

**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 WGS.*

**BWS 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 Douglass, Frances E.W. Harper, William Wells Brown, Linda Brent, and Harriet Wilson. Particular attention 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. CAS-B-LIT. Offered infrequently.

*Cross-listed with ENG.*

**BWS 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. CAS-B-LIT.

*Cross-listed with ENG.*

**BWS 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. CAS-B-LIT.

*Cross-listed with ENG.*

**BWS 339 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.

*Prerequisite: POL 221. Cross-listed with POL 338.*

**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.*

**BWS 342 Africa Since 1945 (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.*

**BWS 343 African-American Religions (3)**

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.

*Cross-listed with REL.*

**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.*

**BWS 352 Medicine and Society in 20th Century Africa (3)**

Explores the place of medicine in the political, economic, and social history of Africa as well as African responses to changing patterns of disease, health and health care during the 20th century.

*Cross-listed with HST.*

**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/SOC.*

**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.*

**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.

*Prerequisite: junior or senior status, or permission of instructor. Cross-listed with ATH.*

**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 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.*

**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/WGS.*

**BWS 385 Race, Science, and Disease in the Americas (3)**

Surveys a variety of debates over race and disease since the European overseas expansion to the Americas, particularly in those regions that developed plantation-based agriculture. Begins with the medical and scientific construction of ideas about race from the conquest to the eighteenth century. Places the development of racial theories of sickness and health in a broad social and political context, and, in particular, explains the medical salience of race in the settings of slavery and colonialism. Discussions will focus primarily on Latin America, the Caribbean, and the United States, but will also explore the making of knowledge about race in global setting.

*Cross-listed with HST/LAS.*

**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.*

**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. Offered infrequently.

*Cross-listed with HST.*

**BWS 401 Race and Criminal Justice (3)**

This course investigates the critical role that race plays in our criminal justice system. The course will provide a sociohistorical framework of the criminal justice system, the inequalities that are inherently part of its structure, as well as the effects those inequalities have on different racial/ethnic groups in the United States. This course will encourage debate on exactly how just is the U.S. criminal justice system for minority groups and people of color. The course will also employ a life course perspective to investigate criminal behavior from juvenile delinquents through adulthood. Students in this class should objectively view the racial differences in the criminal justice system and be encouraged to reduce the racialized justice system.

*Prerequisites: BWS 151 and either CJS 211 or 281. Cross-listed with CJS.*

**BWS 402/502 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: WGS 201 or 202 or 301. Cross-listed with WGS.*

**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 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 ENG/WGS.*

**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/WGS.*

**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.*

**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.*

**BWS 470 Social/Political Activism (3) MPC**

Provides students with the opportunity to explore how indigenous groups effect change in their communities.

*Prerequisite: SOC 151 or BWS 151. Cross-listed with DST/SJS/SOC.*

**BWS 472/572 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.*

**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. Offered infrequently.

*Cross-listed with HST.*

## 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.

**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.

**BUS 151 Exploring International Business (1)**

This course introduces topics of interest to first-year students exploring international business. Focus is on globalization, cultural differences, and essentials for working in an international business context.



**BUS 203 Business Writing Consulting (1)**

Students will learn principles and practices of writing center consulting for business communications. Students will review key genres of business communications, including memos, letters, executive summaries, reports, proposals, and visual presentation aids. Students who successfully complete the course will be eligible to apply to be paid writing center consultants in the Howe Writing Initiative in the Farmer School of Business. Admission by application only.

*Prerequisite:* BUS 102.

**BUS 206 Exploration for Business Majors (1)**

This course will explore the diverse career paths available to students studying the field of business, from public and private corporate settings to nonprofit and government sectors. Students will explore personal and academic strengths, identify/confirm possible business majors and potential career paths, and develop their Philosophy of Work. In addition to developing career related documents and job search/interview skills, students will have the opportunity to engage and network with FSB employers and alumni.

**BUS 241 China Business Seminar I (2)**

This course contains traditional lectures and features a series of speakers who focus on the historical, geographical, cultural, economic, political, legal and religious environments and how these factors influence companies doing business in China. This course will provide students a basic understanding about the issues, challenges, and problems faced in China and also prepare students for the advanced course --- "BUS 341, China Business Seminar II." This course should be completed prior to studying abroad.

*Prerequisite:* enrollment in the China Business Program.

**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. One to three 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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/ECO/ESP/FIN/ISA/MGT/MKT.

**BUS 341 China Business Seminar II (2)**

This course contains lectures, guest speakers and cases discussion which focus on integrating historical, geographical, economic, political, legal and cultural factors within a business context to make effective business decisions from a Chinese perspective. This course

will provide students an opportunity to integrate knowledge learned from the business courses with the issues, challenges, and problems encountered in China. In addition, this course will help students to deal with the business problems by comparing, contrasting and negotiating different cultures to gain a competitive advantage. This course should be completed after studying abroad in China.

*Prerequisite:* enrollment in the China Business Program.

**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.

This course is offered only in the summer and winter as part of an eight-hour "capstone" to the Minor in General Business degree which includes BUS 351 (2), BUS 352 (2), BUS 353 (2) and BUS 354 (2).

**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.

This course is offered only in the summer and winter as part of an eight-hour "capstone" to the Minor in Business degree which includes BUS 351 (2), BUS 352 (2), BUS 353 (2) and BUS 354 (2).

**BUS 353 Business in Context: Beyond the Enterprise (2)**

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.

This course is offered only in the summer and winter as part of an eight-hour "capstone" to the Minor in Business degree which includes BUS 351 (2), BUS 352 (2), BUS 353 (2) and BUS 354 (2).

**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.)

This course is offered only in the summer and winter as part of an eight-hour "capstone" to the Minor in Business degree which includes BUS 351 (2), BUS 352 (2), BUS 353 (2) and BUS 354 (2).

**BUS 371 International Business (3)**

Acquaints students with basic concepts and analysis of environmental factors in which international businesses operate, strategic alternatives and applications, case studies, and country analyses.

*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 international workshop. Offered abroad only.*

**BUS 420 FSB International Studies Programs (1-3; maximum 6)**

The class provides an introduction to the history, culture, geography, business environment, economy, and language of the locations that students will travel on FSB international programs.

*Prerequisite: admission to FSB International Studies Program.*

**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)**

Provides students with interdisciplinary perspectives of sustainability in business and resource management through consideration of the economic, social, and environmental value of organizations. The course covers principles, case studies, and best practices used by organizations in several areas of sustainability, such as energy efficiency and alternatives, waste management and recycling, ecosystem services, product redesign and life cycle management, resource management, and sustainability planning and reporting.

*Prerequisite(s): BIO 121, BIO 131, GLG 121, IES 274, or IES 275; ECO 201. Cross-listed with IES.*

**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 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.

*Prerequisite: enrollment in MBA Program.*

**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 316 Legal Writing and Reasoning (3)**

Students in this course will learn strategies for effective and persuasive legal writing, including the appropriate methodologies for legal reading, research and analysis. Students will gain experience writing in a number of genres, including case briefs, memoranda of law, and professional correspondence.

*Prerequisite: ENG 111/112 or waiver of the 111/112 requirement (through AP credit, honors program etc.); sophomore standing or above. Cross-listed with ENG.*

**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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.*

**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: 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: 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 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.*

## BUSINESS TECHNOLOGY COURSES (BTE Business)

**Note:** There are some restrictions in applying BTE credits toward the Miami Bachelor of Science in Business degree. BTE courses do not satisfy any specific course requirements and a maximum of 12 BTE credit hours may be applied toward that degree. These restrictions do not apply to other Miami degrees such as the Bachelor of Integrative Studies (BIS).

**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. Offered infrequently.*

**BTE 105 Introduction to Marketing (3) MPT**

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 analysis, and presentation of business data. Emphasis on the use of these methods as tools for solving typical business problems.  
*Prerequisites: MTH 101, and BTE 181, or CSE 141, CSE 148 or CIT 154 or permission of instructor.*

**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. Offered infrequently.*

**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. Offered infrequently.

**BTE 117 Personal Finance, An Introduction (3)**

An introductory course in managing your money to become more knowledgeable about personal finance, thereby enabling you to make wiser financial decisions. Topics include: career planning, financial tools, budgets, income taxes, checking and savings accounts, building good credit, credit cards and loans, vehicles, homes and other major purchases, managing health expenses, insurance, investments, retirement and estate planning.

**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 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. Computerized applications are an integral part of course.  
*Prerequisite: BTE 101 and 181.*

**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.  
*Prerequisite: permission of instructor. Cross-listed with CIT and ENT 220.*

**BTE 221 Professional Development (1-3)**

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 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, 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 261 Customer Service and Satisfaction (3) MPT**

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 263 Sales and Promotions (3) MPT**

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 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. Offered infrequently.*

**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. 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)**

Survey of the analysis, and presentation of business data. Emphasis on the use of these methods as tools for solving typical business problems.

*Prerequisite: BTE 181, or CSE 141, CSE 148 or CIT 154 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 and electronic-document management. How software and hardware tools are affecting the work environment. 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. Develop a good understanding as to the steps necessary to deploy/transition into a new information system.

*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 web development tool 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.

**BTE 402 Cross Cultural Leadership Skills (3) MPF**

Today's global business environment makes cross-cultural leadership a critical skill. This course will help you foster international awareness, appreciate global diversity and adapt to

different business and social settings. It will explore business practices, communication and decision-making styles across countries. The course will focus on effective leadership skills of business development, negotiation, and motivation. This is a hands-on course that will include case studies, self-reflection papers and an in-depth country report.

*Prerequisite:* BTE 113 or 244.

#### **BTE 441 Social Media and Career Development (3)**

In today's workplaces, the use of social media allows working professionals to become more visible and "connected." In BTE 441, the relationship between social media and career development will be studied as students learn about self-marketing, professional networking, and a variety of career search strategies. As active participants in Web 2.0 experiential activities, students will learn new skills in critical thinking, oral and written communications, interpersonal relationship-building, teamwork building, cross-functional training, and problem-solving approaches. Creativity and innovation in ideation, along with increased technological expertise in the use of a variety of social media platforms, is anticipated. Social media tools have the potential to create rich opportunities in self-directed learning, thought leadership, and professional networking, provided that the boundaries between casual and professional use are understood and respected. With this in mind, searching for a real-world career position using multiple research methodologies and several avenues of networking will be undertaken.

## **CHEMICAL, PAPER AND BIOMEDICAL ENGINEERING COURSES (CPB Engineering and Computing)**

#### **CPB 102 Introduction to Chemical and Bioengineering (3)**

This course introduces an approach to problem solving for engineering students. Students will apply systematic approaches to problem solving including mathematics and quantitative methods appropriate to chemical engineering and bioengineering. The course introduces computational and discipline-specific tools to assist in problem analysis, modeling, design, and hands-on learning. Students will demonstrate engineering solutions to problems in the laboratory. Students will practice their teamwork and communication skills. This course is open to all majors.

*Co-requisite:* MTH 151.

#### **CPB 201 Principles of Paper Science and Engineering (3)**

Introduction to pulping and papermaking. Apply engineering skills to problem solving related to paper industry.

*Prerequisite:* CHM 141.

#### **CPB 202 Pulp and Paper Physics (3)**

Discovery of how pulping, papermaking and converting are utilized to develop required performance properties of products from paper. Conduct laboratory investigations to determine the properties of paper made in the laboratory and from a pilot paper machine.

*Prerequisite(s):* CPB 201 and a grade of C or better in PHY 181 and one of the following: CPB 219 or MME 211.

#### **CPB 204 Material and Energy Balances (3) MPT**

Engineering problems involving material and energy balances. Batch and continuous reactive systems. Introduction to phase equilibria for multicomponent systems. Examples drawn from a variety of chemical, paper and biomedical applications.

*Prerequisite:* grade of C or better in CHM 142. *Co-requisite:* PHY 181 and MTH 251.

#### **CPB 219 Statics and Mechanics of Materials (4)**

This course provides an introduction to the fundamentals of the mechanics of materials for Bioengineering and Chemical Engineering students. The course stresses statics, dynamics, and mechanics of deformable media, and material behavior. Advanced topics in constitutive modeling, structural stability, and vibrations that are relevant to bio/chem engineering will be introduced and related to the course materials. The central theme of the course that binds these objects together is proper problem formulation in terms of kinematics, constitutive behavior, equilibrium, and compatibility.

*Prerequisites:* MTH 251 with a grade of C or better and PHY 181.

#### **CPB 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.

*Prerequisites:* CHM 141 or equivalent, MTH 151 or equivalent.

*Cross-listed with* IES 244.

#### **CPB 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:* CPB 201 and one of the following: CHM 231 or CHM 241 or CHM 251.

#### **CPB 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 CPB 204. *Concurrent course:* CPB/MME 313.

#### **CPB 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.

*Prerequisites:* MTH 251 or equivalent, PHY 181, and either CPB 219 or MME 211, or permission of instructor. *Cross-listed with* MME.

#### **CPB 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:* MME 211 or CPB 204 or CPB 219. *Co-requisite:* MTH 251 or equivalent. *Cross-listed with* MME.

#### **CPB 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.

#### **CPB 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.

*Prerequisites:* ECO 201, MTH 151 or equivalent. *Co-requisite:* STA 368 or CPB 204 or ECE 345. *Cross-listed with* MME.

#### **CPB 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.

*Prerequisites:* CPB/MME 313, CPB/MME 314, MTH 245 or MTH 347. *Cross-listed with* MME.

#### **CPB 404 Papermaking (3)**

Papermaking process with emphasis on chemical engineering principles involved.

*Prerequisites:* CPB/MME 313 and CPB 202.

#### **CPB 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:* a grade of C or better in CPB 204. *Co-requisite:* CPB/MME 313.

#### **CPB 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:* CPB/MME 314.

**CPB 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, psychrometry, and drying. Multiple effect evaporators, cooling towers, packed towers, distillation.

*Prerequisite(s):* CPB/MME 313, CPB/MME 314, MTH 245 and a grade of C or better in CPB 204.

**CPB 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.

*Prerequisites:* CPB/MME 313 or CPB 418, CPB/MME 314, MTH 245 and a grade of C or better in CPB 204.

**CPB 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, fermenter design and sterilization processes.

*Prerequisites:* MTH 245; CHM 332, 432 or 433; CPB 415 and a grade of C or better in CPB 204 or by permission of instructor.

**CPB 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.

*Prerequisites:* MTH 245, CPB 414 or 418, and a grade of C or better in CPB 204 or permission of instructor.

**CPB 418/518 Biological Transport Phenomena (4)**

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/CPB 314; MTH 245; PHY 181 and CPB 219 or MME 211.

**CPB 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; CPB 418.

**CPB 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.

*Prerequisite:* senior standing or permission of instructor.

**CPB 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; CPB 204 and CPB 418.

**CPB 423/523 Biomechanics (3)**

Introduction to mechanics of living systems. Constitutive models are presented and applied to soft and hard tissues and organs, such as orthopaedic biomechanics and cardiovascular biomechanics.

*Prerequisites:* (CPB 219 or MME 312) and MTH 245 and STA 301.

**CPB 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:* a grade of C or better in CPB 204; and junior standing. *Co-requisites:* CPB/MME 341.

**CPB 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.

*Prerequisites:* CPB/MME 313, CPB/MME 314, CPB/MME 341, a grade of C or better in CPB 204.

**CPB 450/550 Special Topics (1-5; maximum 20)****CPB 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.

*Prerequisites:* CPB/MME 403 and CPB 414. *Concurrent course:* CPB 482.

**CPB 471, 472 Engineering Design I, II (2, 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:* senior standing or permission of instructor. *Prerequisite for* CPB 472: CPB 471.

**CPB 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.

*Prerequisites:* CPB/MME 341; CPB/MME 403 and a grade of C or better in CPB 204. *Co-requisites:* CPB 414 and CPB 415.

**CPB 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.

*Prerequisites:* CPB/MME 313, CPB/MME 314, and MTH 245.

**CPB 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.

**CPB 491 Introduction to Research (1-3; maximum 3)**

Research problems in chemical engineering and paper science selected in consultation with a faculty advisor. Research methodology; design of laboratory experiments and computer simulations; critical analysis of results; technical reports; oral presentations. For grade only.

*Prerequisite:* permission of instructor, subject to approval of department chair.

**CPB 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.

**CPB 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:* CPB/MME 403, CPB 414/514 (or equivalent) and graduate standing or instructor approval.

**CPB 612 Engineering Analysis (3)**

Analytical considerations involving the construction and solutions of mathematical models for processes and systems pertinent to chemical and mechanical engineering. The analytical methods will cover the modeling of steady and unsteady state engineering problems.

*Recommended prerequisites:* CPB 403, 414, 415; MME 412, 414, 436 (or equivalent); or permission of instructor. Cross-listed with MME.

**CPB 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.

**CPB 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:* CPB 620 or equivalent, or permission of the instructor.

**CPB 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):* CPB 412/512 and graduate standing or instructor approval.

**CPB 690 Graduate Research (1-12)**

*Prerequisite:* graduate standing and permission of chair.

**CPB 700 Research for Master's Thesis (0-9)****CPB 710 Industrial Practicum (1-12)**

Analysis and solution of an industrial problem.

## 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 BIO/MBI.*

**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.

*Prerequisite:* BIO/CHM/MBI 102. Cross-listed with BIO/MBI.

**CHM 104 Learning Strategies for Chemistry (1)**

Applies the latest research on learning, such that students will learn acquire and practice techniques to gain a deeper understanding of CHM 141 material on the particulate, symbolic, and macroscopic levels. Learning techniques such as concept mapping, self-assessment, and questioning will be generalizable to other chemistry courses to help students form productive study habits for future courses.

*Concurrent course:* CHM 141.

**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, 121, 131, 141, or 141R. 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 (3) 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. IVB. CAS-D. CAS-QL.

**CHM 111L Chemistry in Modern Society Laboratory (1) MPF**

Laboratory course for non-science majors. Students will explore basic chemistry principles that are relevant in everyday life through experimentation and data analysis. Critical thinking will be emphasized through inquiry-based activities. Emphasis will be placed on activities that develop quantitative reasoning skills, including data handling in context of case studies, and on the communication of scientific information through writing. 1 Lab, IVB, CAS-D

**CHM 121 Introduction to Forensic Chemistry (4)**

Integrated lecture and laboratory course for all majors that, by incorporating the exciting theme of forensic science, builds an appreciation for the underlying aspects of chemistry. The topics include paper chromatography of ink, soil analysis, synthetic and natural fibers, fingerprints, ions in urine, drug analysis, fire accelerants, blood alcohol determination, and microscopic hair analysis. Typically taught on the Middletown Campus.

**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. 3 Lec. 1 Lab. IVB, LAB.

*Prerequisite:* introductory high school physical science and algebra or CHM 109.

**CHM 141 College Chemistry (3) MPF**

General chemistry lecture course. Examines the fundamentals of atomic and molecular structure, chemical reactions and stoichiometry, properties of solutions, thermochemistry, gases, and chemical bonding. Students also develop ideas, experience, methodology, and skills used in the application of scientific methodology. 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 College Chemistry (4) MPF**

Coordinated lecture and recitation 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. IVB, LAB.

*Prerequisite:* permission of instructor or Math Placement score of 8-11. Credit not given for both CHM 141 and 141R. Concurrent course: CHM 144.

**CHM 142 College Chemistry (3) MPT**

In this follow-up to CHM 141, students will continue their study of the properties of solutions, thermodynamics, and acids and basis. The course also explores chemical kinetics, chemical equilibrium, coordination chemistry, and electrochemistry.

*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 144 College Chemistry Lab (2) MPF**

Presents laboratory exercises to illustrate the fundamental principles of chemistry. An emphasis will be placed on safety, laboratory skills, techniques for simple quantitative measurements and the use of modern instrumentation for data collection and analysis. Students will also gain skills in developing hypotheses, observing chemical phenomena, collecting and sharing data and evaluating results critically. IVB, LAB. CAS-D/LAB.

*Concurrent registration in CHM 141 required.*

**CHM 144M General Chemistry Laboratory (2) MPF**

Covers content similar to CHM 144. The focus of this laboratory course is for students with an interest in chemistry or biochemistry as a major. IVB, LAB. CAS-D/LAB.

*Prerequisite: high school chemistry or permission of instructor.*

### **CHM 145 College Chemistry Laboratory (2) MPT**

Presents laboratory exercises to illustrate the fundamental principles of chemistry. In this follow-up to CHM 144, students will continue working on their laboratory skills, using techniques for quantitative measurements and using modern instrumentation for data collection and analysis. Includes chemical kinetics, equilibrium, acids and bases, and electrochemistry. CAS-D/LAB.

*Prerequisite: CHM 144; concurrent registration in CHM 142 is required.*

### **CHM 145M College Chemistry Laboratory (2) MPT**

Covers content similar to CHM 145. The focus of this laboratory course is for students with an interest in chemistry or biochemistry as a major. CAS-D/LAB.

*Prerequisite: CHM 144M; concurrent registration in CHM 142M is required.*

### **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 148 Introduction to Undergraduate Research in the Department of Chemistry and Biochemistry (1)**

An introduction to undergraduate research in Chemistry and Biochemistry. Conducted in a seminar/lecture format, the course will prepare students to select an undergraduate research advisor, to plan a research project, and to work independently in the research laboratory.

*Prerequisite: CHM 147.*

## **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 BIO/MBI.*

### **CHM 231 Fundamentals of Organic Chemistry (4) MPT**

One-semester course covering organic structures and reactions with simple examples from living systems. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite: CHM 142 and 145.*

*Note: Credit may not be received for both CHM 231 and 241, 242 or 251, 252.*

### **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. CAS-D/LAB.

*Prerequisite: (244) CHM 145; (245) CHM 244.*

### **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.

*Prerequisite: (MPT 251) CHM 142M; (252) CHM 251. Concurrent registration in CHM 254/255 required.*

### **CHM 254/255 Organic Chemistry Laboratory for Chemistry Majors (3, 2) (254 is MPT)**

Introduction to modern experimental techniques in organic chemistry as applied to synthesis, purification, and determination of the structure of organic molecules. CAS-D/LAB.

*Prerequisite: (CHM 254) CHM 153 or equivalent; (255) CHM 254. Concurrent registration in CHM 251/252 required.*

### **CHM 332 Outlines of Biochemistry (4) MPT**

Introduction to biochemistry of multifunctional organic molecules including carbohydrates, lipids, nucleic acids, and proteins. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite: CHM 231, 242, or 252.*

*Note: Credit may not be received for both CHM 332 and 432, 433, 434.*

### **CHM 363 Analytical Chemistry (3) MPT**

Fundamentals of analytical chemistry including classical and instrumental methods.

*Prerequisite: CHM 142, 145.*

### **CHM 364 Analytical Chemistry Laboratory (2) MPT**

Analytical chemistry laboratory including classical and instrumental methods. CAS-D/LAB.

*Prerequisite(s): CHM 142, 145.*

### **CHM 375 Analytical Chemistry for Majors (3)**

Instrumental methods of analysis including theory, problem solving, and laboratory experiments applied to real life samples. Instruction in writing and quantitative literacy. 1 Lec. 2 Lab. CAS-QL. CAS-W.

*Recommended prerequisites: CHM 142 and CHM 145.*

### **CHM 410 Topics in Chemistry Education (3)**

Advanced coverage of selected topics in chemistry education.

*Prerequisite: STA 261 or STA 301. Co-requisite: CHM 451 or CHM 471.*

### **CHM 417/517 Advanced Inorganic Chemistry (3)**

Survey of fundamental principles of contemporary inorganic chemistry.

*Prerequisite(s): CHM 142M, 452.*

### **CHM 419 Synthesis Lab (2)**

Designed to introduce undergraduate students in chemistry/biochemistry to advanced synthetic methods. Students will synthesize and characterize organic and inorganic molecules, and characterize the products using NMR, EPR, and other modern instrumentation.

*Prerequisites: CHM 241/242 plus labs, or CHM 251/252 plus labs.*

### **CHM 421 Forensic Trace Analysis (2)**

Lecture portion of an integrated lecture/laboratory sequence for forensic science majors that addresses trace analysis as pertaining to forensic scenarios. The topics include sample storage, evidence logging and chain-of-custody, analysis of ink, paper, fiber, blood, glass, hair, bullets, fingerprints, alcohol, drugs (presumptive and confirmatory), fire accelerants. Typically offered on Middletown Campus.

*Prerequisite: CHM 363 and 364. Concurrent course: CHM 421L.*

### **CHM 421L Forensic Trace Analysis Laboratory (1)**

Lab portion of an integrated lecture/laboratory sequence for forensic science majors that addresses trace analysis as pertaining to forensic scenarios. The topics include sample storage, evidence logging and chain-of-custody, analysis of ink, paper, fiber, blood, glass, hair, bullets, fingerprints, alcohol, drugs (presumptive and confirmatory), fire accelerants. The course will be run as a functioning crime lab with scenarios, samples, and deadlines. Typically offered on Middletown campus.

*Prerequisite: CHM 363 and 364. Concurrent course: CHM 421.*

### **CHM 424/524 Advanced Experimental Techniques in Structural and Functional Genomics (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: BIO 113 or BIO 114 or BIO/MBI 115 or BIO/MBI 116 or BIO 191 or MBI 201 or MBI 202 or equivalent, CHM 141/142 or equivalent, or permission of instructor. Cross-listed with BIO/MBI. 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 CHM 252.

**CHM 433/533 Biochemistry (3) MPT**

General principles of biochemistry and their relationship to chemical structure.  
*Prerequisite:* CHM 242 or CHM 252.

**CHM 434/534 Biochemistry (3)**

General principles of biochemistry and their relationship to chemical structure.  
*Prerequisite:* CHM 433/533.

**CHM 438 Biochemistry Laboratory (2)**

Laboratory course utilizing modern biochemical techniques. Emphasis on logic, design, and execution of biochemical experimentation.  
*Prerequisites:* CHM 432 or CHM 434, or permission of instructor.

**CHM 450 Topics in Organic Chemistry (3; maximum 6)**

Advanced coverage of selected topics in organic chemistry.  
*Prerequisites:* CHM 252, 255.

**CHM 451/551 Physical Chemistry for Chemistry Majors (3)**

Fundamentals of physical chemistry including thermodynamics, kinetics, quantum chemistry, statistical thermodynamics, and spectroscopy.  
*Prerequisites:* MTH 251 or equivalent and PHY 182.  
*Note:* Credit may not be received for both CHM 451, 452 and 471, 472.

**CHM 452/552 Physical Chemistry for Chemistry Majors (3)**

Fundamentals of physical chemistry including thermodynamics, kinetics, quantum chemistry, statistical thermodynamics, and spectroscopy.  
*Prerequisite:* CHM 451 or equivalent.  
*Note:* Credit may not be received for both CHM 451, 452 and 471, 472.

**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, 451, and concurrent registration in CHM 452 or 472.

**CHM 456 Chemical Measurements II (2)**

Laboratory course emphasizing instrumental methods of chemical analysis and methods of measuring physical-chemical properties. CAS-D/LAB.  
*Prerequisite:* CHM 452, 454, and 455.

**CHM 460 Topics in Physical Chemistry (1-3; maximum 12)**

Advanced coverage of selected topics in the area of analytical chemistry.

**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 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.  
*Recommended prerequisites:* programming course and BIO 116 or BIO 342; or permission of instructor. Cross-listed with BIO/CSE/MBI.

**CHM 470 Topics in Physical Chemistry (1-3; maximum 12)**

Advanced coverage of selected topics in the area of physical chemistry.  
*Co-requisite:* CHM 451 or CHM 471.

**CHM 471/571 Biophysical Chemistry I (3, 3)**

Fundamentals of physical biochemistry including thermodynamics, macromolecular structure, kinetics, enzyme kinetics, quantum chemistry, and biophysical spectroscopy.  
*NOTE:* credit may not be received for both CHM 451, 452 and CHM 471, 472.  
*Prerequisites:* MTH 251 or equivalent and PHY 182.

**CHM 472/572 Biophysical Chemistry II (3)**

Fundamentals of physical biochemistry including thermodynamics, macromolecular structure, kinetics, enzyme kinetics, quantum chemistry, and biophysical spectroscopy.  
*NOTE:* credit may not be received for both CHM 451, 452 and CHM 471, 472.  
*Prerequisites:* CHM 471 or equivalent.

**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 452 or CHM 472, 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:* 2.30 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.

**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 603 Cell Molecular and Structural Biology First Year Graduate Seminar (1)**

Introduction to methods of searching literature, preparation of audiovisual materials, preparation of grant applications and manuscripts, developing good presentation skills, and other aspects of the profession. Seminar for beginning graduate students in the Cell Molecular and Structural Biology Program.  
*Cross-listed with BIO/MBI.*

**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 452 or 472.

**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 and 452 or 472.

**CHM 650 Seminar in Molecular Biology (1)**

Discussion of current literature in molecular biology.  
*Prerequisite:* graduate standing. Cross-listed with BIO/MBI.



**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 452 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 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 advisor 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, Asian, and Middle Eastern Languages and Cultures)

**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.

*Prerequisite: 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. CAS-A.

*Prerequisite: CHI 201 or equivalent.*

**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.

**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. CAS-B-LIT.

**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. IIB, Cul. CAS-B-LIT.

*Cross-listed with JPN.*

**CHI 257 Chinese Satire (3)**

This course examines several significant works of satire in twentieth-century Chinese literature. Through class discussions, weekly writings and longer essays we will analyze techniques of satire in modern Chinese fiction, identify and assess the ways satirical works shed light on Chinese history, culture and society, and identify and explain the similarities and differences between Chinese and Western satire. Taught in English.

**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.*

**CHI 271 Chinese Culture Live (1-3)**

Offered for study abroad programs in China, the course consists of lectures, trips and practice on topics ranging from history and cultural customs to local cuisine and taiji. Knowledge of Chinese is not required.

**CHI 272 Experience Traditional Chinese Culture (3)**

Explores traditional Chinese culture in central China and early evolution of the Chinese language through lectures, visits to historical sites and museums, cultural activities and interactions with local people. Prior knowledge of Chinese is not required. Offered for Study Abroad Program in China for summer or winter term.

**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.

*Recommended 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.

*Recommended prerequisite: CHI 301 or equivalent.*

**CHI 311 Business Chinese I (3)**

Introduces business terms and expressions with the goal of developing communicative skills in the business related situations. In addition, instruction includes information and knowledge about business practice, etiquette, interpersonal relationship and other social, political and cultural aspects of Chinese business world.

*The course is on the same level of difficulty as CHI 301, and that is why both have the same recommended prerequisite: CHI 202. Its main difference from CHI 301 is that its content is much more specialized, as it solely focuses on the Chinese used in business.*

**CHI 312 Business Chinese II (3)**

Continues the study of business Chinese after CHI 311. It expands students' vocabulary by teaching them an additional 200 business terms and expressions, and introduces them to longer and more difficult sentences so their communicative skills in business related situations will develop further. In addition, it provides information and knowledge about business practice, etiquette, interpersonal relationships, and other social, political and cultural aspects of the Chinese business world not covered in CHI 311.

*Recommended prerequisite: CHI 311.*

**CHI 330 Chinese Verbal Theatre Performance (3)**

Introduces and provides students with an opportunity to practice various Chinese verbal arts via multiple performance modalities. These include Peking opera, tongue-twisters, comedic dialogue, clapper talk, and poetry recitations. Develops language skills through performance.

*Recommended prerequisite: CHI 202 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.

*Recommended 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.

*Recommended 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.

## CIVIC AND REGIONAL DEVELOPMENT COURSES (CJS Professional Studies & Applied Sciences; Department of Justice & Community Studies)

**CRD 201 Theories of Civic Leadership and Democracy (3)**

Critical introduction to the study of community, democracy, and civic leadership. Draws widely from several scholarly fields (including political science, philosophy, economics, international development and civic engagement), placing particular emphasis on the various ways that scholars and practitioners conceptualize "community" and "democracy" and the ways that theories of democratic citizenship can inform the actions and practices of individuals, leaders, and groups within communities.

**CRD 202 Introduction to Nonprofits and NGOs (3)**

Overview of the history, organization, and functions of nonprofits and NGOs, one of the largest sectors of the United State workforce. Visiting professionals from community agencies provide local connections and context, and service-learning experience allows students to engage and learn in additional environments.

**CRD 301 Community-Based Practicum I (3)**

Placement with an appropriate community or government agency where students apply their skills and learn new ones. Preparatory classroom component, regular reflection assignments, and community project required.

*Prerequisite: CRD 202.*

**CRD 302 Community-Based Practicum II (3)**

Placement with an appropriate community or government agency where students apply their skills and learn new ones. Preparatory classroom component, regular reflection assignments, and community project required.

*Prerequisite: CRD 301.*

**CRD 401 Capstone in Civic and Regional Development (3)**

Focuses on the production of a senior project in collaboration with an appropriate community partner. As part of the Miami Plan, it emphasizes sharing of ideas, synthesis, and critical, informed action and reflection, and includes student initiative in defining and investigating problems or projects. Culminates in a public presentation for community and university members.

*Prerequisite: 96 hours registered or earned (senior standing).*

## 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.

**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.

**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.

**Advanced Classics Courses**

**Note:** Consult the MP Thematic Sequence descriptions for prerequisites and appropriate courses for fulfilling that requirement.

**CLS 210 Topics in Classics (1-3; maximum 12)**

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 three times if topic changes.

**CLS 210L Ancient Religions (3)**

Explores the nature of religious practices and beliefs in ancient Greek and Roman societies, how ancient peoples communicated with their gods through sacrifice, prayers, and festivals, and how they believed their gods communicated with them by means of oracles and omens. Students will develop an understanding of topics like divine justice, rites of passage, beliefs and customs associated with death and the afterlife. Though these investigations, students will deepen their knowledge of the ancient cultures while interrogating the concept of religion itself.

**CLS 210S Roman Spectacle (3)**

Examines the great spectacle entertainments around which much of Roman society was organized and that filled the public areas of the city: gladiators, chariot races, animal hunts, triumphs, and martyrdoms. Students will explore their types, forms and meanings and engage questions of cultural values, identity and projection of power in a world where death was the common motif in popular entertainment.

**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.

**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 and post-classical drama. CAS-B.

**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.

**CLS 215 Greek and Roman Historians (3) MPT**

Introduces students to the works of ancient historians, including Herodotus, Thucydides, Livy and Tacitus. Reading the original historians of Greece and Rome as opposed to modern histories will allow students to engage ancient notions of history, historical writing, and the literary efforts that created the histories; students will learn to read history critically, aware of the perspectives and political and social context of the historian and the effect those have on the final work. CAS-B.

**CLS 216 Roman Cities (3)**

A 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 218 Greek and Roman Erotic Poetry (3) MPT**

Aims at fostering an understanding of how Greco-Roman poetic forms shaped societal values and visions, especially notions of eroticism and sexuality as they are expressed in ancient poetry. The Greeks developed numerous literary lyric genres, which influenced and even conditioned most of the Western poetic discourse and preceded the ideas of Romanticism. The Romans added to all the Greek genres love elegy and satire, the only genres not inherited from the Greeks, and equally influential for the future generations. Examines a variety of forms and poetic expressions in ancient lyric poetry. The course also aims at understanding the process by which we read different literary genres.

**CLS 222 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.*

**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 WGS.*

**CLS 244 Introduction to Egyptian Art and Archaeology (3) MPT**

Introduces students to the art and archaeology of Pharaonic 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 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. Taught in English. IIB, Cul, H.

*Cross-listed with ATH/ITS/HST/POL/REL/RUS.*

**CLS 303 Introduction to Linguistics (4) MPF**

Scope of linguistics: fundamental concepts and methods of linguistic science in its descriptive and historical aspects. V. CAS-E.

*Cross-listed with ATH and GER 309; ENG and SPN 303.*

**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.

**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 380L.*

**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 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. Offered infrequently. CAS-B.

**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 323 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 325 Russian Reception of Classical Culture (3)**

Examines a variety of forms and poetic expressions in both modern (Russian) and ancient poetry. Introduces students to the way in which Russian literature and especially poetry responded to Greco-Roman antiquity. Analyzes how the study of classical

antiquity, with its rich mythological tradition and history, represented to the Russian literary elite a window into the West and an opportunity to establish a Russian literary heritage within Western literary canon. All readings in English translation.

*Cross-listed with ENG/RUS.*

**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.

**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 336 Ancient Sexualities (3)**

Examines the written and visual evidence for ancient sexual practices, as well as ancient attitudes towards these practices as found in ancient law, philosophy, love poetry, novels, and other texts. Our reading of primary sources will be informed by modern writings on gender and sexuality. We will also engage with recent debates about the ideologies reflected in ancient codes of sexual conduct. Through a close reading of a variety of ancient Greek and Roman texts and images, together with contemporary interpretive readings, we will attempt to reach not only a fuller understanding of some central features of the cultures of Greece and Rome, but also, by holding up the mirror of antiquity to our own beliefs and practices, to arrive at a more critical consideration of how we think about sex and gender today.

*Cross-listed with WGS.*

**CLS 361 Antiquity Through a Lens (3)**

Introduces students to filmic projections of classical myths and historical crises. Heightens students' awareness of the ways films construct our images of classical antiquity in the service of contemporary ideological agendas.

*Cross-listed with FST.*

**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.*

## COMMUNICATION COURSES (COM Arts and Science)

**Note:** MAC 143 is a prerequisite for all majors in the Department of Media, Journalism and Film; MAC 146 is a prerequisite for all production and writing courses in the MAC and revised Strat COM majors.

**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 135 Introduction to Public Expression and Critical Inquiry (3)**

Develops fundamentals of analyzing, organizing, adapting, and delivering ideas effectively in public contexts. Special emphasis placed upon informative and persuasive discourse.

**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 177 Independent Studies (0-5 per semester; no more than 10 per year)**

Must be approved by instructor, area approvals committee, and department chair.

**COM 201 Special Topics in 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. IIC.

*Cross-listed with ENG.*

**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 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 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 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: MAC 146, or permission of instructor. Cross-listed with ENG.*

**COM 259 Introduction to Strategic Communication and Public Relations (3) MPT**

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:* ISA 205 or STA 261 or STA 301.

**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 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 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. CAS-C.

*Prerequisite:* COM 134 or COM 136 or permission of instructor.

**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 (0-20)**

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, dramatic, fantasy theme, generic, and narrative methods. Offered infrequently.

*Prerequisite:* COM 239 or permission of instructor.

**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 377 Independent Studies (0-5 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/WGS.*

**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 war-making rights. H. Offered infrequently.

**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 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. Offered infrequently.

*Prerequisite:* COM 339 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 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 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 Studies (0-5 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.

*Prerequisite:* permission of instructor. *Cross-listed with ENG/SPA/DST/SOC 494 and EDP 489.*

## COMPARATIVE MEDIA STUDIES (CMS Arts and Science; Department of Media, Journalism, and Film)

### CMS 201 Introduction to Comparative Media (4)

The course introduces students to the interdisciplinary field of Comparative Media Studies. Students will compare a wide range of media technologies, including audio recordings, print media, film, television, texting, video games, social media, e-commerce apps, weather satellites, and medical imaging technology. Students will examine how such technologies are used in different cultural and historical contexts. One hour of the course is designated as a lab hour to allow students to use different media technologies.

### CMS 225 Linking Film and New Media (3)

This course will consider the challenge new media present to cinema's primacy, but also the ways in which cinema survives and thrives in a digital age. While acknowledging what is unique to different new media forms, we will also identify the aspects of new media that are not fully "new" by examining their dependence on styles, structures, narratives, and even actual footage from cinema and other "old" media. Conversely, we will uncover how new media have reshaped cinema through influences such as CGI, video games, and digital editing.

*Prerequisite:* CMS 201 or FST 201. *Cross-listed with FST.*

### CMS 301 Comparative Approaches to Media Studies (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.

### CMS 350 Special Topics in Comparative Media Studies (3)

Students will build upon and apply key concepts in the comparative study of media to a special topic.

### CMS 385 Media Geographies (3)

Explores contemporary media infrastructures, representations, virtual and augmented realities, and communicative practices that describe our world and create spaces of social action.

*Cross-listed with GEO.*

### CMS 401 Senior Seminar in Comparative Media Studies (3)

Advanced exploration of topics in comparative media studies.

*Prerequisite:* CMS 201.

## 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

101S Computing Skills: Spreadsheets

101W Computing Skills: Word Processing

**Note:** a maximum of nine credit hours of CIT 101, CSE 141, and CIT 154 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 awarded for only one of these: BTE 181, CSE 141 or 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. Explores fundamentals of layered network communication, including devices, protocols and addressing. Uses current client-side web design and interactive technologies. Explores IT considerations and practices regarding the web presence of organizations.

### CIT 158 Foundations of Information Technology II (3)

An introduction to IT systems and problem solving from the lowest level of computer processors to high level application software. Topics range from computer architecture, data representation, operating systems, and associated low level programming to a survey of computer languages and other software production tools. Problem solving for IT organizations is covered, including analysis, algorithms, development and testing.

*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 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. Offered only on regional campuses.

*Prerequisite:* CIT 157, CIT 158 and (CIT 101D or CIT 154, or CSE 141, or CSE 148).

### 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. Offered Credit/No Credit only. Offered only on regional campuses.

*Prerequisite:* permission of departmental internship coordinator. *Cross-listed with ENT/CIT.*

### 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. Offered only on regional campuses.

*Prerequisite:* CSE 163 or CSE 174, or permission of the instructor.

### 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.

**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. Offered only on regional campuses.

*Prerequisite:* CSE 163.

**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. Offered only on regional campuses.

*Prerequisite:* sophomore standing or permission of instructor.

**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.

*Prerequisites:* CIT 157 and CIT 158. Co-requisite: 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.

*Prerequisites:* CIT 157, CIT 158 and one of (CIT 214, CIT 263, CIT 270, CIT 273, CIT 286, CSE 201, CSE 271 or CSE 274).

**CIT 281 Enterprise Network Infrastructure (3)**

Introduces the design and implementation of enterprise networks using industry-standard infrastructure operating systems. Topics will include selection of routing protocols, router configuration, advanced topics in network addressing, LAN switch configuration, VLAN configuration, inter-VLAN routing, port security, and enterprise wireless design.

*Prerequisite:* CIT 157.

**CIT 284 Enterprise Server Installation and Configuration (3)**

Covers the installation and configuration of industry-standard server solutions. Students will use virtual machines, and explore virtual networking. Topics will include client and server operating system selection, installation, management and troubleshooting; design and implementation of a directory services model; user-creation and management; and implementation of a variety of server-based applications and services.

*Prerequisite:* CIT 157.

**CIT 286 Designing and Deploying Secure Enterprise Networks (3)**

Integrates clients, servers and infrastructure components into a secure network design. Students will learn about common network-based vulnerabilities, corresponding mitigation solutions, and structured testing methods. Topics will include infrastructure security concepts, protocols, and devices. Students will learn about device hardening, configuration of server and router-based ACLs, and firewall configuration concepts.

*Prerequisites:* CIT 281 and CIT 284.

**CIT 348 Information Management and Retrieval (3)**

This course will apply information technology to databases to support decision making. It will address information technology techniques as they apply to information lifecycle issues in a variety of domains. This course will include hands-on use of current information technology for organizational needs analysis, data acquisition and storage through data contextualization, and information retrieval effective use. Participants will analyze new tools and techniques for suitability to specific information management and retrieval objectives. Topics include data storage and retrieval techniques, data transformation, tool analysis and evaluation, information presentation, data mining, and organizational information need analysis.

*Prerequisites:* CIT 214 and STA 261 or STA 301 or ISA 205.

**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:* CIT 214 or CIT 276 or permission of instructor.

**CIT 431 Health Information Technology I (3)**

Examination of information technology and related systems in healthcare settings, particularly as they pertain to clinical systems. Emphasis is on the analysis of data needs, interpretation of workflow analysis, and investigation into interoperability requirements and standards.

*Prerequisites:* NSG 321 and CIT 348.

**CIT 432 Health Information Technology II (3)**

Continued examination of information technology and related systems in healthcare settings, particularly as they pertain to non-clinical systems such as healthcare administration and financial systems. Emphasis is on the analysis of data needs, security analysis, data reporting, and the design and development of HIT projects.

*Prerequisite:* CIT 431.

**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.

**CIT 458 Collaborative System Development and Integration (3)**

This course provides the opportunity to demonstrate information technology and process expertise along with an application of liberal education tenets. Students will work collaboratively and apply project management techniques to produce a working IT system. This collaborative effort will include individual accountability; planning and meeting deadlines; and effective and timely implementation. The focus of the course will be a semester-long project that requires intense collaboration of multiple teams, in which students may play a variety of roles in the design and development of a system.

*Prerequisites:* (CIT 276 or ENT 316) and (CIT 348 or CIT 358) or equivalents.

## COMPUTER SCIENCE AND SOFTWARE ENGINEERING COURSES (CSE Engineering and Applied Science)

**CSE 102 Introduction to Computing and Engineering (3)**

This course introduces students to the computing and engineering disciplines with a focus on electrical, computer and software engineering. The course focuses on various computing and engineering design principles and tools used in the profession. Students will be able to model, implement, and test these principles



via projects required throughout the course. This course is open to all majors.

*Cross-listed with ECE.*

### **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. Credit not awarded for both CSE 148 and CSE 243.

### **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. This course is not open to CSE students without permission of instructor.

### **CSE 163 Introduction to Computer Concepts and Programming (3) MPF, 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. This course is not open to CSE students without permission of instructor. V. 2 Lec. 1 Lab.

*Prerequisite: high school algebra and trigonometry.*

### **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, CSE 274 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: 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 equivalent; or permission of instructor.*

### **CSE 243 Problem Analysis Using Computer Tools (3)**

Students will learn to use personal computer productivity tools to analyze data, work with others in conducting analyses, develop conclusions and effectively communicate results. Students will utilize spreadsheet tools to analyze data and will be challenged to evaluate data from multiple perspectives in order to develop conclusions supported by their analysis. Students will use word processing tools to integrate text and graphical information that clearly and concisely communicates their conclusions. While an important part of the course is learning to use the software tools, the emphasis of the course is learning to use these tools to solve problems and communicate results. Credit not awarded for both CSE 148 and CSE 243.

### **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 not open to CSE students without permission of instructor.

### **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. This course is not open to CSE students without permission of instructor.

*Prerequisite: 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 256 Introduction to Programming for the Life Sciences (3)**

Introduction to programming for majors in the life sciences. The ability to write programs to perform tasks related to the organization and analysis of biological data has become a highly-valued skill for researchers in the life sciences, allowing wet-lab researchers to quickly process and sort through large amounts of data to find information relative to their own work. This course serves as an introduction to programming designed specifically for life science majors, targeting the specific skills and techniques commonly needed and explaining the fundamental methods of working with biological data while centering programming assignments around topics of interest to those studying the life sciences. Topics covered include basic programming techniques, representation and manipulation of genomic and protein sequence data, and the automated interface with BLAST and the NCBI GenBank database.

*Cross-listed with BIO/MBI.*

### **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 111, a minimum of 20 credit hours earned. IIB, IIC.*

*Cross-listed with CIT.*

### **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. 2 Lec. 1 Lab.

*Prerequisite:* CSE 174 with a grade of C- or better.

**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 or equivalent.

**CSE 274 Data Abstraction and Data Structures (3) MPT**

Abstract data types and their implementation as data structures using object-oriented programming. Use of object-oriented principles in the selection and analysis of various ADT implementations. Sequential and linked storage representations: lists, stacks, queues, and tables. Nonlinear data structures: trees and graphs. Recursion, sorting, searching, and algorithm complexity.

*Prerequisite(s):* CSE 271 with a grade of C- or better and MTH 231, or CSE 271 with a grade of C- or better and MTH 222, MTH 251 or equivalent, and ECE 287.

**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.

**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. 2 Lec. 1 Lab.

**CSE 310 Undergraduate Research Seminar (1)**

Seminar or workshop on topics in computer science, software engineering, or related fields.

*Prerequisite:* permission of instructor.

**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):* CSE 201.

**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:* 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:* CSE 201.

**CSE 372 Stochastic Modeling (3) MPT**

Survey of methods of stochastic operations research including reliability, Markov processes, queueing theory, and decision theory. Computer used for modeling and solving problems.

*Prerequisite:* STA 368 or concurrent registration in STA 401.

**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.

*Prerequisites:* CSE 274 and either CSE 278 or ECE 289 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 and CSE 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.

*Prerequisites:* CSE 274 and MTH 231. 2 Lec. 1 Lab.

**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.

*Prerequisites:* CEC 102 or equivalent, MTH 245 or MTH 347, and STA 368 (or equivalent). Concurrent courses: 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:* 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 for 448:* CSE 201, CSE 274, and senior standing in student's major. *Prerequisite for 449:* CSE 448.

**CSE 451/551 Web Services and Service Oriented Architectures (3)**

Intro to service-oriented architectures; examine purposes and differences between different web service technologies; analyze shortcomings and strengths of integration techniques; development of cross-platform applications using standard interchange languages.

*Prerequisites:* CSE 274 and 283.

**CSE 456/556 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: BIO/MBI 116, MBI 201, BIO 342, CHM 332, CHM 433; or permission of instructor. Cross-listed BIO 485/585.*

#### **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.).

*Prerequisites: MTH 231 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.

*Recommended prerequisite(s): programming course and BIO 116, or BIO 342, or permission of instructor. Cross-listed with BIO/CHM/MBI.*

#### **CSE 467/567 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.

*Prerequisites: CSE 283 and CSE 383.*

#### **CSE 470/570 Special Topics (3)**

Advanced topics in computer science or software engineering. Prerequisites vary by topic.

#### **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.

*Prerequisites: CSE 174 or equivalent; and STA 368 or 401.*

#### **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, and 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 481 Computing Approaches to Disease and Disability (3)**

In a multi-disciplinary team, students design, implement, and disseminate a computer based project meant to address a chronic disease or disability. Programming skills are not a prerequisite, as students will also use their knowledge of public health, interactive media production, disability studies and related fields. Students will

explore diversity concerns related to disease and disability as an integral part of the course. This course fulfills the Miami Plan capstone requirement but students should verify that this course meets departmental or major requirements.

*Prerequisite: senior standing.*

#### **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 ISA 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.

*Prerequisites: CSE 385 and MTH 231.*

#### **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.

*Prerequisites: CSE 274 or 606 and MTH 231.*

#### **CSE 487/587 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.*

#### **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 advisor. 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 (3)**

A graduate-level introduction to computer programming in a contemporary language. Algorithm development, refinement, and problem-solving approaches. Data types and control structures. Program debugging and testing. Interactive input/output. Single and multi-dimensional arrays. Simple sorting and searching algorithms. Introduction to classes, objects, and object-oriented programming. An introduction to object-oriented programming techniques that includes inheritance, polymorphism, and composition.

#### **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 609 Programming for Engineers and Scientists (3)**

This course addresses programming skills at an intermediate level and focuses specifically on scientific and engineering computing skills. This course will emphasize topics commonly encountered in scientific computing/computational science. It primarily addresses non-parallel (serial) computing competencies and is a prerequisite to the high performance computing area. The course will focus on an appropriate programming language currently used in research.

*Recommended prerequisite: a programming course in any language.*

#### **CSE 610 Seminar in Computer Science (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 616 Simulation of Physical Systems (3)**

This course is an introduction to the principles and use of simulation, and suitable software tools, to model the behavior of physical systems in the sciences and engineering. Concepts related to discrete event simulation including random number generation, scheduling and processing are addressed. Concepts related to continuous simulation including linear, nonlinear, and dynamic systems are studied. Students will design and implement simulations using suitable modeling and simulation software tools.

**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.

**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:* 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 630 Graduate Professional Practice (0)**

Students participating in the masters of computer science program may register for this course during semesters when they are away from Oxford working in an internship or co-op work experience related to the degree. This enables students to maintain continuing student status with the university.

*Prerequisite:* permission of instructor.

**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 advisor. Requires a public presentation of completed work. For grade only.

*Prerequisite:* permission of instructor, student's graduate advisor, and graduate director.

**CSE 667 Cryptography (3)**

This course introduces the techniques and tools used in modern cryptography. The course covers common cryptographic assumptions and tools, including: pseudo-randomness, symmetric key cryptography, and asymmetric key cryptography.

*Prerequisite:* graduate standing or permission of instructor. Recommended co-requisite: CSE 464/564.

**CSE 700 Research for Master's Thesis or Project (0-9)**

Study under graduate faculty supervision of a research problem related to computer science or software engineering. Approval and public presentation of a project proposal is required within the first three hours of research. Upon completion of research, the results must be defended before the advisory committee for approval. Minimum of two semesters of research toward fulfillment of the research requirement. Maximum of six credit hours of CSE 700 may be applied toward fulfillment of the credit-hour requirement for the Master of Computer Science.

## CREATIVE ARTS COURSES (CCA College of Creative Arts)

**CCA 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. IIA, V.

**CCA 121 Introduction to the Integrated Arts and Culture (3)**

This course will focus on learning basic arts vocabulary, concepts and principles, with an emphasis on those words and ideas that are common to all the arts. (e.g.: syncopation, rhythm, pattern, etc.) Students will be exposed to the fundamental steps of the creative process that are integral to various artforms. This vocabulary and process will be examined in context through the historical and cultural study of a particular urban location.

*Co-requisites:* CCA 221 and 321.

**CCA 182 Experiencing the Arts (1)**

Introduction to various arts. Attendance at art events required.

**CCA 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. Open to arts management minors only.

**CCA 221 Immersion in the Integrated Arts and Culture (3)**

Students will learn about various forms of art (architecture, theatre, design, music, etc.), simultaneously gaining an understanding of their unique characteristics, while learning how they are interconnected, integrated, and sit in a specific cultural context. By studying how architecture and interior space design affects the theatrical/musical performances in an opera house, for instance, students will gain a stronger understanding of how individual arts

disciplines enrich one another. Learning would take place in the classroom, as well as in an experiential fashion.

*Co-requisites:* CCA 121 and 321.

#### **CCA 231 Dance for the Musical Stage (3)**

Introduction to the fundamentals of dance for the musical stage. Open to the students enrolled in the Music Theatre Minor only.

*Recommended prerequisite:* KNH110A Beginning Ballet.

#### **CCA 321 Application in the Integrated Arts and Culture (3)**

This course focuses on the application of knowledge regarding the integrated arts. A team-based project will put students in multidisciplinary groups that collaboratively research, create and present a particularly important site that demonstrates arts integration. In addition, there will be an individual project that chronicles the student's learnings and asks them to reflect upon the connection of the creative process to their personal experience/environment.

*Co-requisites:* CCA 121 and 221.

#### **CCA 331 Acting for the Musical Stage (3)**

This course will focus on the integration of acting, singing and dancing to prepare a song for public performance. Open to students enrolled in the Music Theatre Minor only.

*Prerequisites:* THE 131, MUS 119, CCA 231, one semester of MUS 216.

#### **CCA 340 Internship (0-20)**

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:* CCA 201.

#### **CCA 410 Advanced Topics in the Creative Arts (1-4)**

Topics focus on a range of contemporary arts subjects, themes, or issues related to arts management, ethics and leadership; museum studies and practices; creative enterprise and entrepreneurship; among others as extensions of ideas in presented in College of Creative Arts courses and programs.

*Prerequisites:* CCA 201, CCA 340 or permission of the instructor.

#### **CCA 422/522 International Fashion Workshop (6)**

Study abroad studio experience in fashion design for clothing, shoe, millinery, jewelry, or accessories. Explores and develops concepts, techniques, materials and critical aesthetic thinking applied to the process of creating and making wearables for the body in an immersive global context.

*Prerequisite:* one of the following - ART 111, 121, 171; THE 251; ARC 101, 102, 113 or 114.

#### **CCA 444 Fashion Runway (0)**

This course is a interdisciplinary collaborative applied design and technology practicum in support of the production of the annual public Fashion Show at Millett Hall, or other venue, featuring the original apparel and accessories designed by Miami students.

*Prerequisite:* one foundational design course: ART 111, 121, 171; THE 253/205; or ARC 101, 102, 113, or 114; or permission of instructor.

## **CRIMINAL JUSTICE COURSES (CJS Professional Studies & Applied Sciences; Department of Justice & Community Studies)**

#### **CJS 101 Introduction to Criminal Justice Studies (3) MPF**

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. IIC.

#### **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 235 Forensic Science Survey (3)**

This survey course examines the many facets of forensic science. Students will become aware of the diversity of disciplines in which it is practiced and be introduced to typical forensic science specialties. The course will include guest speakers from each of the various disciplines and employment areas.

#### **CJS 245 Human Trafficking and Contemporary Slavery (3)**

Overview of the trafficking and enslavement of human beings in our globalized world, including forced prostitution, child soldiers, bonded labor, and hereditary slavery. Explores the contributing roles of states, organized crime, culture (corruption, discrimination, inequality, poverty), and the media in domestic and global contexts.

#### **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.*

#### **CJS 281 Corrections (3)**

Focuses on the historical perspectives of corrections in America, institutional corrections, and the demographics of correctional clients. Provides an overview of correctional law, ethical and moral dilemmas and key issues in corrections.

#### **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.

*Prerequisite(s):* CJS 101, 125, 211, 231, and 232. *Co-requisite:* CJS 256.

#### **CJS 311 Punishment and Social Control (3)**

Offers an in depth discussion of social policy; including social ethics, social inequality, and social deviance. Focuses on how race, class, and gender affect the concept of punishment in America.

#### **CJS 312 Community Corrections (3)**

Focuses on the history and development of community based corrections, the utilization of probation, parole, and intermediate

sanctions, and issues related to special populations under correctional supervision. Provides a discussion of appropriate offender classification mechanisms, theories of offender treatment, and recidivism considerations used throughout the process of sentencing.

### **CJS 313 Alternatives to Corrections (3)**

Investigates the current state of incarceration and corrections policy in America. Focuses on alternative methods of crime control, including methods utilized in other countries and cultures. Provides criminal justice students knowledge of ethical and moral components of correctional counseling, rehabilitation, reentry, and reintegration.

### **CJS 321 Criminal Justice Administration (3)**

This course will provide a critical examination of how the different agencies within the criminal judicial system (police, courts, and corrections) function and interact. Discussion will include the principles of management and administration, and their application to CJ agencies. Topics include: management, organizational theory, leadership, communication, the rights of public and private employers and employees, and the decisions making process.

### **CJS 331 Juvenile Law (3)**

Provides a critical examination of the major Supreme Court cases on juvenile law and society's concerns on how the law impacts youth. Discussions will include the history of juvenile system as well as the legal rights of youth within the juvenile justice process and at school.

### **CJS 401 Race and Criminal Justice (3)**

This course investigates the critical role that race plays in our criminal justice system. The course will provide a sociohistorical framework of the criminal justice system, the inequalities that are inherently part of its structure, as well as the effects those inequalities have on different racial/ethnic groups in the United States. This course will encourage debate on exactly how just is the U.S. criminal justice system for minority groups and people of color. The course will also employ a life course perspective to investigate criminal behavior from juvenile delinquents through adulthood. Students in this class should objectively view the racial differences in the criminal justice system and be encouraged to reduce the racialized justice system.

*Prerequisites:* BWS 151 and either CJS 211 or 281. *Cross-listed with BWS.*

### **CJS 411/511 Evidence Law and Expert Testimony (3)**

This course examines pretrial discovery, the basic rules that govern the admissibility of evidence at trial, and in greater detail, the law that applies to scientific evidence and to expert witnesses. Practical advice and simulations intended to prepare the student to be an effective witness are included.

### **CJS 445 Geographic Information Systems for Crime Analysis and Mapping (3)**

Geographic Information Systems for Crime Analysis and Mapping – Collect, organize, analyze and display spatial data used in criminal justice and emergency management. Part of the course will be a GIS Crime Analysis Product. Taught on Regional Campuses. *Cross-listed with GEO.*

### **CJS 451 Comparative Justice Systems (3)**

A survey of the major legal traditions in world, as well as an examination of rule of law, civil rights, policing, and punishment & corrections in specific jurisdictions for the purpose of understanding how law and justice systems develop, how systems interact and converge, and how peoples from around the world approach justice. Comparisons between the United States and other nations/systems will occur with the intention of better understanding, critically assessing, and improving systems in the United States.

*Prerequisites:* CJS 101; CJS 125; CJS 231 or POL 352 or POL 353; CLS 211 or CJS 281; junior or senior standing.

### **CJS 461 Applied Research Methods in Criminal Justice (3)**

Presents the philosophical and theoretical foundations of applied research, issues specific to research in the criminal justice system, and quantitative and qualitative data analysis. Course will culminate in the completion of an applied research project.

### **CJS 470 Special Topics in Criminal Justice (1-6; maximum 9)**

An examination of a contemporary problem/issue in criminal justice through some combination of research, readings, discussion, and experiential learning. Topics will vary according to need and interest. This class may be repeated for credit provided different topics are studied.

### **CJS 485 Capstone: Seminar in Criminal Justice (3)**

This course synthesizes the student's learning through reading, research, and discussion of issues in the criminal justice system.

Students will conduct research 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. All students will complete a Service-Learning project who have not done so previously.

## **DISABILITY STUDIES COURSES (DST Arts and Science; Department of Sociology and Gerontology)**

### **DST 101 Beginning ASL I (4)**

This course will introduce conversationally relevant signs, fingerspelling, grammatical sign principles and background information related to deaf culture with the objective of teaching students to sign and understand ASL with increasing ability.

*Cross-listed with SPA.*

### **DST 102 Intermediate ASL II (4)**

The Intermediate II course is a continuation of the Beginning ASL I course. This course will continue to introduce conversationally relevant signs, grammatical principles, and background information related to the Deaf culture with the objective of teaching students to sign and understand ASL with an increasing ability at the ACTFL proficiency intermediate low-mid level (Swender, Conrad, & Vicars, 2012). Swender, E., Conrad, D. J., & Vicars, R. (2012). ACTFL proficiency guidelines 2012. ACTFL, INC. Retrieved from <http://actflproficiencyguidelines2012.org>.

*Prerequisite:* DST/SPA 101.

### **DST 169 Disability Identity (3) MPF**

Study of the construction of disability identity through literature, memoir, and popular culture. MPF IIB, Cul. CAS-B: Humanities.

*Cross-listed with ENG.*

### **DST 201 Intermediate ASL I (3)**

The Intermediate ASL I course is a continuation of the Beginning ASL II course. This course will continue to address conversationally relevant signs, grammatical principles, and background information related to the Deaf culture with the objective of teaching students to proficiently sign and understand ASL with an increasing ability dictated by the American Council on the Teaching of Foreign Languages' proficiency intermediate mid-high level.

*Cross-listed with SPA.*

### **DST 202 Intermediate American Sign Language II (3)**

Intermediate ASL II is the fourth course in the American Sign Language curriculum. Students will continue to develop ASL communication skills receptively and expressively through continued vocabulary and grammar instruction. Deaf culture concepts will be expanded upon with course instruction presented primarily in ASL. In addition, students will partake in service learning opportunities so the student can partake in mastery of ASL and to become assimilated with Deaf culture values.

*Prerequisite:* DST/SPA 201 or equivalent. *Cross-listed with SPA.*

### **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. IIIA. CAS-B.

*Cross-listed with COM 247 and ENG 245.*

### **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/WGS.*

**DST 312 Deaf Culture: Global, National, Local Issues (3)**

This course is intended to provide 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. IIC.*

**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. CAS-B: Humanities.

*Cross-listed with ENG.*

**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.

*Pre-requisite(s): GTY 154. Cross-listed with GTY.*

**DST 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. CAS-C: Social Science.

*Cross-listed with EDP/SOC/WGS.*

**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. CAS-C: Social Science.

*Cross-listed with COM/EDP/SOC/WGS.*

**DST 470 Social/Political Activism (3) MPC**

Provides students with the opportunity to explore how indigenous groups effect change in their communities.

*Prerequisite: SOC 151 or BWS 151. Cross-listed with BWS/SJS/SOC.*

**DST 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.

*Prerequisite: Permission of instructor. Cross-listed with COM/ENG/SOC/SPA 494 and EDP 489.*

**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.

*Prerequisite: MTH 102 or Miami University Math Placement score recommending placement into MTH 123 or higher.*

**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.

*Prerequisite: MTH 102 or Miami University Math Placement score recommending placement into MTH 123 or higher.*

**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. For ECO 311, 315, and 317, the prerequisite is to earn a grade of at least a "C" in ECO 201 and ECO 202 or permission of the instructor.

**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.

**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.

*Prerequisite: ECO 201.*

**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. CAS-QL

*Prerequisites: Earn a grade of at least a "C" in ECO 201 and ECO 202; and ISA 205 or STA 261 or STA 301 or STA 368 or permission of the instructor.*

**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.

*Prerequisites: earn a grade of at least a "C" in ECO 201 and 202; and MTH 151 or permission of the instructor.*

**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): earn a grade of at least a "C" in ECO 201 and 202; and MTH 151; or permission of instructor.*

**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.

## 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.

*Prerequisite: MTH 102 or a Miami University Math Placement Score recommending placement into at least MTH 123.*

**ECO 321 American Industries and Issues (3) MPT**

The course examines major American industries, their history, and the economic and public policy issues they pose.

**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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.

**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 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.*

**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 406/506 Environmental Economics (3) MPT**

Economic analysis of environmental quality. Strategies for collective environmental action. Benefit-cost analysis. Economic growth and environmental quality.

**ECO 407/507 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 414/514 Mathematical Microeconomics (3-4)**

Development of mathematical techniques essential for understanding economic theory and performing economic research. Topics include calculus of several variables; linear algebra; classical, nonlinear, and convex programming; comparative statics; and dynamic programming.

*Prerequisite:* MTH 151 and ECO 315 and one of the following: MTH 222, 231, or 251 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. Offered infrequently.

*Prerequisite:* ECO 317.

**ECO 420 Seminar on Economic Problems (1-3; maximum 9)**

Selected topics in economics. Offered infrequently.

*Prerequisite:* permission of instructor.

**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 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. Offered infrequently.

*Prerequisite: ECO 315 and 317, or permission of instructor..*

**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. Offered infrequently.

*Prerequisite: ECO 315 or 603.*

**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).*

**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 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 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 (3)**

Topics include simultaneous equations bias, omitted variable problems, estimation with limited dependent variables, differences-in-differences models, quantile regressions, event studies in finance and the Fama-French model.

**ECO 672 Applied Time Series Analysis (3)**

Topics include autoregressive and moving average models, unit root topics, co-integration, autoregressive conditional heteroscedasticity, and applications to financial economics and other applied areas of economics.

**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 195 Leadership in Healthy Communities (1)**

Seminar designed for EHS Leadership Scholars to promote personal growth, professional development and positive commitment to ones academic field. Focus will be placed on establishing leadership characteristics and playing a critical role in the various communities that we serve.

**EHS 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.

**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.

**EHS 710 Interdisciplinary Doctoral Lab (1-6; maximum 6)**

This course will introduce the student to doctoral study focusing primarily on interdisciplinary and global issues that both cross and connect the domains of the school, family, health, and society. The course will be taught by a team of professors from different academic departments who are qualified to work with the doctoral students and also may include relevant field/research experiences. Topics for the doctoral labs may vary depending on the emphases of the students and the faculty facilitating the labs. Curriculum and faculty for the doctoral lab will be designated and monitored by the Educational Leadership Interdisciplinary Option Doctoral Committee in EHS.

*Prerequisite: acceptance into the Educational Leadership interdisciplinary option doctoral program in EDL.*

## 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 115 Miami Tribe Contemporary Issues I (1)**

Introduce and explore the major issues that the Miami Tribe of Oklahoma faces today as a sovereign Nation. These issues will be contextualized within Indian Country as a whole as well as within the broader global indigenous community. Focus is on the issues of sovereignty, self-determination, governance, leadership, economic development, and education.

**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 151 The American University (2)**

This course is intended to accclimate and acculturate first year International students to the U.S. educational culture and in particular to the Miami University culture. Through this highly experiential course, International students begin to build intercultural competencies, including the cultural intelligence necessary to succeed in an American university, and in the broader U.S. cultural context; are introduced to resources and offices on campus to assist in transition and adjustment; develop, adjust, and use academic skills needed to understand and navigate study load, test culture, academic integrity, class participation, residence hall life, advising, classroom technology, counseling and health issues, and extracurricular activities, among others.

**EDL 195 Team Building Development - Facilitation & Group Dynamics (2)**

This course is an introduction to group facilitation and group management. This course will focus on the building and development of community. Students will think critically, process & debrief experiences within a community of people, and establish skills towards a Challenge Course Level 1 certification. Content will explore sequencing, planning and presenting activities. Student will

have several opportunities to practice their skills in group facilitation and experience team building activities that they can then use in their professional life later on.

**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 215 Miami Tribe Contemporary Issues 2 (1)**

In this course we will introduce and explore the major issues that the Miami Tribe of Oklahoma faces today as a sovereign Nation. These issues will be contextualized with comparisons to Indian Country as a whole as well as to broader global indigenous experiences. In this second semester of the course, we will specifically focus on the global manifestations of nationhood, sovereignty, and self-determination in classic governmental structures, like constitutions, and in locations or activities that are not normally associated with issues of political or economic sovereignty, like art. Through this exploration, we will attempt to develop a framework of comparative indigenous nationhood.

*Prerequisite: EDL 115.*

**EDL 216 Myaamia Ecology & History 1 (1)**

In this course we will introduce, explore, and weave together various perspectives of Myaamia (Miami) ecology and history. The ecological observations of this first course will be heavily influenced by the seasonal transition from summer into winter that occurs during the fall semester. From these observations, the class will create a shared understanding of the web of relationships that links humans, animals, plants, landscapes, other-than-human beings, and the stories that one particular group of humans "the Myaamiaki" have told about these interactions over time. Through an exploration of some of the general aspects of Myaamia ecology and history, each individual participant of the class will begin develop their own personalized understanding of this complex web of relationships. Half of the class meetings will be dedicated to discussing historical topics, i.e. focused on the past, but one of our explicit goals is to discuss how historical understandings and ecological practices are a part of, or can be made a part of, our contemporary lives.

**EDL 232 Introduction to Community-Based Leadership (3)**

Introduction to Community-Based Leadership explores theories and practices of leadership in public institutions and communities. Students critically examine three concepts central to community-based leadership: public, leadership, and democracy. Using the scholarship of leadership studies and civic engagement, students explore what it means to work in public life and lead for the public good in local, national, and international contexts. Students accomplish these goals through readings, class discussions, analytical and reflective writing, and community-based learning experiences connecting theory with practice. The course will help students develop their own vision and plan for participating in community-based leadership as Miami students and as engaged citizens.

**EDL 260 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 290 The Nature of Group Leadership (2)**

A two-credit course for students interested in exploring multiple approaches to leadership and building capacity for socially responsible leadership. The course involves engaged learning through community action work, skill building, reading, writing, case analysis, and dialogue.

**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 316 Myaamia Ecology & History 2 (1)**

In this course we will continue to weave together the various perspectives of Myaamia (Miami) ecology and history, which were introduced in the first semester. The ecological observations of the second course will be heavily influenced by the seasonal transition from winter into summer that occurs during the spring semester. From these observations, the class will create a shared understanding of the web of relationships that links humans, animals, plants, landscapes, other-than-human beings, and the stories that one particular group of humans "the Myaamiaki" have told about these interactions over time. Through an exploration of some of the general aspects of Myaamia ecology and history, each individual participant of the class will begin to develop their own personalized understanding of this complex web of relationships. Half of the class meetings will be dedicated to discussing historical topics, i.e. focused on the past, but one of our explicit goals is to discuss how historical understandings and ecological practices are a part of, or can be made a part of, our contemporary lives. The spring semester of this course will more explicitly focus on traditional stories and historical narratives. These oral and textual sources will be used to contextualize the ecological knowledge that students began developing in the first semester of the course.

### **EDL 317 Myaamiaatawenki: Myaamia Language & Culture 1 (1)**

This course is the first of a two-course series that introduces the Myaamia language and culture. The goal of this class is to expose students to Myaamia language and culture and create thoughtful discussions about why maintaining the Myaamia heritage language and culture is important. This course will build off of the experiences, knowledge, and skills acquired in EDL 316 by adding greater linguistic and cultural complexities to students' knowledge of contemporary issues and historical and ecological contexts. The course will advance each student's use of the Myaamia language towards a more functional level. Students will be exposed to more immersive language environments and will demonstrate an ability to express simple wants and needs in the Myaamia language.

*Prerequisite: EDL 316.*

### **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 333 Media Representations of Youth and Urban Education (3)**

This course offers a critical analysis of media portrayals of youth and urban education. Specific topics such as school violence, bullying, teen pregnancy, social promotion, student achievement, and urban teaching will be analyzed across a broad range of media formats. Students will examine how these representations both reflect and shape how society views urban youth and schooling.

### **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 352 Teaching in International Contexts (1)**

This course prepares students who have no background or experience in teaching and who plan to teach for a short time overseas, either individually or through a University program, such as Ambassadors for Children, the African School Advancement Program and other groups. The course introduces students to the cultural, historical, political and educational context in which the student plans to teach; preliminary skills of curriculum development, lesson planning, and instructional strategies; basic principles of teaching English as a Second Language; and basic preparation for international travel and immersion.

### **EDL 366 Cross-cultural Examination of the United States and China within an Educational Context (3)**

This course is designed for students to gain basic knowledge, including both similarities and differences, revolving about China and America, in an educational context. The goal of this course is to help students broaden their knowledge about varying cultures in order to better understand how teachers can best help students learn and grow. The students will gain a deeper understanding of China and America and what each country faces in the years to come. Students will focus on the challenges and opportunities each culture provides to individuals through examining similarities and differences. Students will explore different culture related topics and come to a conclusion regarding their pre and post conceptions of the topic. Students will explore and research one topic more in depth to prepare for a research paper.

*Cross-listed with EDP.*

### **EDL 382 Service in Urban Communities I (3)**

This course introduces students to the particulars of doing service in and with urban communities, to improve educational opportunity and overall community wellbeing. The course provides students the opportunity to develop themselves as servant-leaders who are culturally proficient, critically aware of the race and class dynamics that shape life in urban communities, and thoughtful about how best to respond to challenges that hinder community wellbeing.

### **EDL 383 Service in Urban Communities II (3)**

The purpose of this course is to afford students the opportunity to implement or be involved in a service project in or with a local urban community that will run over the duration of the semester. The course provides students the opportunity to further develop themselves as servant-leaders who are culturally proficient, critically aware of the race and class dynamics that shape life in urban communities, and thoughtful about how best to respond to challenges that hinder community wellbeing.

### **EDL 387 Chinese Education through Culture, Customs, History, and Development (3)**

This course is designed for students to gain basic knowledge about the history and culture of China. The goal of this workshop is to help students gain international experiences and global perspectives on history (the past, present, and future) of China, the culture, and any related issues in order to build and enhance students' ability to work successfully in a global setting. Students will be paired with Chinese students from two universities in a large city and a small or medium sized city, respectively. Students may travel and visit different types of organizations, historical and cultural sites, as well as Chinese families in China. Travels will either be completed in actuality or virtually through the internet and other technological sources. Students will also attend lectures by carefully selected company executives and professors from both the US and China if actually traveling to China. Small group meetings and informal interviews during the travel in China will be conducted to enhance student's understanding of the observations and lectures.

*Cross-listed with EDP.*

### **EDL 416 Myaamiaataweenki: Myaamia Language & Culture 2 (1)**

This course is the second of a two-course series that introduces the Myaamia language and culture. The goal of this class is to expose students to intermediate concepts in the Myaamia language and culture and to develop thoughtful representations of the use of the Myaamia language and culture. This course will build off of the knowledge students gained in EDL 317 by adding greater linguistic and cultural complexities to students' knowledge of contemporary issues, historical contexts, and ecological changes. In this course, students will continue to practice the functional language skills developed in EDL 317. By the end of the course, students will have developed an ability to recount and understand short narrative speech in the Myaamia language.

*Prerequisite: EDL 317.*

**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 464 Community-Based Leadership and Change (3)**

This course provides students with an opportunity to synthesize what they have learned about community-based leadership through their coursework in the CBL minor and demonstrate mastery of primary leadership competencies, concepts, principles and practices. Students will be guided in designing and developing a substantial research project that incorporates significant learning from their program. This course challenges each student to choose an aspect of community to impact, and to create and begin implementing an actual community engagement strategy. Readings and discussions focus on effective tools and strategies for creating lasting change, including the leader's role as a catalyst and convener.

*Recommended prerequisite: EDL 232.*

**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 606 Curriculum Innovation and Transformation through Understanding and Design (3)**

This course is designed for educators interested in learning more about the curriculum in use in classrooms, schools, and community organizations, and the possibilities for shaping and transforming curriculum and teaching practices. The course will introduce students to important issues in curriculum theory and practice.

*Cross-listed with EDT.*

**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 politics of school governance and management, including the analysis and ethics of educational policy at the local, state, and federal levels.

**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 624 Ethics and Values in Education (3)**

An applied philosophy course focusing on the study and use of ethical frameworks for educational practice and decision-making for educators working in K-16 contexts. Theories and applications of moral education are also examined.

**EDL 629 History of Education in America (3)**

Origin and development of educational thought and institutions in the United States.

*Prerequisite: 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: 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: 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: 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: 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: EDL 639.*

**EDL 648 Data-Informed Decision Making in Education (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.

*Cross-listed with EDT.*

**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: enrolled in M.S. or Ph.D. in SAHE or permission of instructor.*

**EDL 656 Professional Development and Field Experience in Student Affairs (1-4)**

Supervised practice in student affairs and higher education contexts.

*Prerequisite: enrolled in M.S. or Ph.D. in SAHE or permission of instructor.*

**EDL 657 Internships in Student Affairs (1-6)**

Graduate students participating in a Student Affairs in Higher Education (SAHE) internship register for this course during the semester they are on work assignment.

*Prerequisite: EDL 676.*

**EDL 660 Seminar in Student Affairs/Higher Education (1-3)**

Focuses on specialized topics in student affairs in higher education.

*Prerequisite: 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:* 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 667 Diversity, Equity, and Dialogue in Student Affairs (3)**

Critically examines issues in higher education access and equity with special attention on race and social class. As a way to learn to have conversations about diversity, this course introduces students to Intergroup Dialogue, a facilitated strategy for engaging in dialogue across difference.

*Prerequisite:* enrollment in SAHE program or permission of instructor.

**EDL 668 Special Topics in Collegiate Subcultures (3)**

This seminar examines multiple anthropological and cultural studies conceptualizations of subcultures, applying these theoretical insights to college students and student affairs.

*Prerequisite:* EDL 666 or permission of instructor.

**EDL 670 Special Topics in College Student Identity (3)**

Examines multiple social identities of college students, such as race, sexual orientation, and religion. Topics may include identity development, relationships among multiple identities, higher education access and equity issues, and ally development. Specific identity/identities covered in this course will differ by semester. Repeatable up to 6 credits.

*Prerequisite:* EDL 677, or EDL 667: *Equity, Diversity, and Dialogue in Student Affairs in Higher Education*, or permission of instructor.

**EDL 672 Intergroup Dialogue in Higher Education (3)**

Provides students an opportunity to engage in Intergroup Dialogue, a facilitated approach to engaging in dialogue across identities, such as race, sexual orientation, social class, gender, and religion. Explores notions of privilege, oppression, and development as a social justice ally in education contexts.

*Prerequisite:* EDL 667 or permission of the instructor.

**EDL 676 Foundations of Student Affairs in Higher Education (3)**

Focuses on the historical, philosophical and theoretical foundations of student affairs.

*Prerequisite:* 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:* 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:* enrolled in M.S. or Ph.D. in SAHE or permission of instructor.

**EDL 680 Special Topics in Equity, Diversity, and Culture: Theoretical Perspectives on Diverse College Students (3)**

Explores the impact of different theoretical perspectives on an understanding of college students, student affairs, and higher education. Among the theoretical perspectives that may be included are critical race theory, feminist theory, critical theory, and queer theory. Theoretical perspectives covered in this course will differ by semester. Repeatable up to 6 credits.

*Prerequisite:* enrollment in SAHE or permission of instructor.

**EDL 681 Leadership Perspectives on Student Affairs and Higher Education (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:* enrolled in M.S. or Ph.D. in SAHE or permission of instructor.

**EDL 683 Qualitative Research in Education (3)**

Introduction to the field of qualitative research in K-16 educational environments, including multiple interpretivist and critical traditions.

*Prerequisite(s):* EDL 654 and enrolled in M.S. or Ph.D. in SAHE or permission of instructor.

**EDL 685 Spirituality and Leadership in Education (3)**

This course examines key literature and pertinent issues related to spirituality and educational leadership such as character development, servant and ethical-moral leadership, and culturally relevant faith traditions across multiple higher education contexts. These issues, among others, are closely linked to values-based personal development and are critical elements in learning about and promoting holistic leadership development. We will examine literature in this growing field of study, discuss the affect and significance of various key concepts, and mutually construct ways to connect theory to practice.

*Prerequisite:* enrollment in SAHE program or permission of instructor.

**EDL 690 International Perspectives on Student Affairs (3)**

Through comparative study and site visits students will explore how different cultures shape and inform societies' systems of higher education and student services. The course emphasizes developing a global perspective on student affairs practice.

*Prerequisite:* enrollment in SAHE program 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 advisor.

*Prerequisite:* plan of work approved by advisor 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:* 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:* 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 (1-3)**

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 (1-3)**

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 New Literacies for Educational Leadership (2)**

An orientation to mass media, social media, and online learning environments as they contextualize the practice of educational leadership in schools and districts. Emphasis on new technological literacies for engaging students, teachers, and parents/citizens through innovative, responsible uses of diverse media formats.

**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.

**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: 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: admission to EDL doctoral program.*

**EDL 762 Culture and Leadership in Education (3)**

This core introductory doctoral seminar is designed to explore various social theories that consider the relationship between culture and educational leadership. The course will focus on a few theories that provide promise for new ways of constructing a theory of culture-based leadership.

**EDL 764 Education and Democratic Society (3)**

This core doctoral seminar explores educational questions of democracy, justice, and cultural difference through disciplinary lenses of the social foundations of education, primarily philosophy and history of education. Students will study, compare, contrast and critique several different conceptual frameworks for understanding democratic theory and educational practice.

**EDL 765 Curriculum, Pedagogy and Diversity (3)**

A core doctoral seminar providing students with a foundational understanding of the historical and contemporary issues, theories, and practices that make up the curriculum field.

**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: permission of instructor.*

**EDL 781 Youth, Culture and Education (3)**

Explores youth subcultures with implications for how educators develop a culturally-relevant, engaging curriculum and pedagogy. This course applies a cultural studies and youth studies research lens for considering how representations of youth that circulate in US culture impact the way educators imagine, engage, and regulate youth in and through educational ideology, policy and practice.

**EDL 782 Social Justice and Transformation (3)**

This course introduces major theories of social justice and links these to the practice of social justice education in schools and communities through active school-community engagement in a field-based project.

**EDL 783 Curriculum, Politics, and Policy (3)**

This course explores how curriculum is conceived in educational policy. Students engage in critical analysis of the politics and policies of formal and informal curriculum.

**EDL 784 Power, Knowledge and Difference (3)**

This course examines the educational and curricular consequences of the epistemological foundations of western educational philosophy. In particular the course examines the challenges posed to these foundations by diverse standpoint epistemologies, including feminist theory, critical race theory, queer theory and post colonial theory.

**EDL 785 Theorizing Gender, Sexuality, and Education (3)**

This course examines the multiple, changing meanings and political effects of gender and sexuality in various socio-cultural and educational contexts. It foregrounds analysis of how social institutions, such as education, the law, family and economy, and cultural representations, such as literary and popular media, shape competing concepts of gender and sexuality. The course readings and collective dialogue place particular attention on feminist scholarship on women, girls and sexual minorities.

**EDL 786 Race, Ethnicity, Education (3)**

This course introduces key theories, concepts and epistemologies in critical race studies and considers how they frame and address educational injustice.

**EDL 787 Leadership for the Public Good (3)**

This course is an examination of emerging models of leadership, organizational change, and leadership strategies for linking schools, families and communities. The course focuses on theoretical frameworks related to leadership and social and organizational improvement in schools and communities.

**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: doctoral admission by department and permission of advisor.*

## 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. 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 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. IIC, Cul.

### 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/WGS.*

### EDP 279 Technology + Media Literacy and Learning (3)

Technology + Media Literacy and Learning is a 3 credit hour course to foster technology and media literacy for undergraduate students in teacher preparation programs. This course focuses fostering knowledge in skills and integration of technology tools, media and digital resources for teaching and learning.

### 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 331 Introduction to Educational Technology (3)

This course provides an introduction to study and practice of educational technology and instructional design and technology. Students are introduced to standards, conventions and practices within the realm of K12 educational technology and beyond. Foundations in the field both theoretical and practical will be introduced.

### EDP 332 Instructional Design Theory and Models (3)

This course is designed for students interested in exploring formal models for the design of instruction. Most commonly, these models are applied to technology-based instruction. Major models of instructional design are surveyed with an emphasis on cognitive theory, instructional design as an area of research, and instructional design as procedural knowledge. The course features implementation activities, enabling students to apply the conceptual processes described in the course.

### EDP 333 Evaluation and Assessment for Instructional Design (3)

Evaluation and Assessment for Instructional Design 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 336 Diversity, Learning & Technology (3)

The purpose of this course is to explore the mutual impact of diverse learner populations and technology. The focus of this course is to explore instructional design of media and technology integration that supports learner diversity in all forms. Special attention is devoted to how instructional design can support and foster inclusion of traditionally underrepresented learner populations (ESOL, special education, non-traditional learners, and economic disadvantaged learners). The goals this course is to provide strategies for designing curriculum and instruction using technology for meeting the needs of diverse, multicultural, special needs, and at-risk learners in K-12 schools. Students will engage in global connections, exploration, and analysis of various technologies to differentiate and/or accommodate instruction for students with diverse learning styles and special needs. This course will emphasize Universal Design as an inclusive model for technology integration.

### EDP 351 Miami Connections Mentoring (1)

This course involves students in an on-campus mentoring experience working with local high school students enrolled in the Miami Connections (Oxford) or Miami Bridges (Middletown) program. It is open to students of any major who are interested in service learning. Background checks and a one-year commitment are required.

### EDP 366 Cross-cultural Examination of the United States and China within an Educational Context (3)

This course is designed for students to gain basic knowledge, including both similarities and differences, revolving about China and America, in an educational context. The goal of this course is to help students broaden their knowledge about varying cultures in order to better understand how teachers can best help students learn and grow. The students will gain a deeper understanding of China and America and what each country faces in the years to come. Students will focus on the challenges and opportunities each culture provides to individuals through examining similarities and differences. Students will explore different culture related topics and come to a conclusion regarding their pre and post conceptions of the topic. Students will explore and research one topic more in depth to prepare for a research paper.

*Cross-listed with EDL.*

### EDP 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/SOC/WGS.*

**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/WGS.*

**EDP 387 Chinese Education through Culture, Customs, History, and Development (3)**

This course is designed for students to gain basic knowledge about the history and culture of China. The goal of this workshop is to help students gain international experiences and global perspectives on history (the past, present, and future) of China, the culture, and any related issues in order to build and enhance students' ability to work successfully in a global setting. Students will be paired with Chinese students from two universities in a large city and a small or medium sized city, respectively. Students may travel and visit different types of organizations, historical and cultural sites, as well as Chinese families in China. Travels will either be completed in actuality or virtually through the internet and other technological sources. Students will also attend lectures by carefully selected company executives and professors from both the US and China if actually traveling to China. Small group meetings and informal interviews during the travel in China will be conducted to enhance student's understanding of the observations and lectures. *Cross-listed with EDL.*

**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. Offered infrequently.

**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 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 multifactorial 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 445 Curriculum & Technology (3)**

This class is designed to support P-12 educators in (1) addressing the mutual impact of technology and curriculum and (2) 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 design a project that integrates technology for effective teaching or learning.

**EDP 446 Educational Interactive Design (3)**

This course focuses on developing an understanding of theory and production of interactive technologies and media 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 447/547 eLearning in K-12 Education (3)**

This course surveys models of eLearning in K-12 educational environments and focuses on developing an understanding of the current state of eLearning in K-12 schools ranging from classroom examples to fully online and distance learning environments. This course provides experience in (1) evaluating electronic resources for use in eLearning environments, (2) designing and developing eLearning instructional modules for online learning systems, (3) planning for use of eLearning tools in assessment. This course will provide both a broad overview of the emerging role of eLearning in K-12 education as well as opportunities to design eLearning materials for students' unique major/career emphasis.

**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.

*Prerequisite(s): EDP 256 and EDP 491. Co-requisite(s): EDP 494 and EDP 459 and EDP 496.*

**EDP 456/556 Advanced Seminar in Evaluation with Evidence-Based Interventions (3)**

Advanced seminar oriented toward the development of competencies in formative assessment and teaching using



evidence-based interventions (EBIs). Students will learn to lesson plan with EBIs and to evaluate student performance and responsiveness to interventions using formative assessments, assessment systems, and reflective journaling. There is a service component required in this course involving the provision of interventions to children who are struggling learners and/or English Language Learners. Upon completion of the course, students will be able to evaluate EBIs, collect and make sense of instructional data, and have the necessary elements to write and/or contribute to a report on a student's responsiveness to intervention.

*Prerequisite: School Psychology Program Admission and/or senior status as a Special Education Student for Capstone Course.*

**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 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. Offered infrequently.

*Prerequisite: senior standing.*

**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.

**EDP 472/572 Literacy Seminar: Practicum (3; maximum 6)**

Explores reading methods and strategies outside of the standard for learners with exceptionalities; explores technology as a means to accessible literacy.

*Prerequisite(s): EDP 256 and EDP 494.*

**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 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.

*Prerequisite: junior/senior or graduate standing.*

**EDP 488/588 Education, Educational Practice and Reform in China (3)**

This course is designed for both US students and international students. The goal of this course is to help students gain international experiences and perspectives on culture, education, and related issues. Students will travel to and visit schools in China, and sit in on lectures from selected Chinese professors. The current educational system and standards of different age groups will be

introduced. The educational practice in meeting these standards will be observed in Chinese schools and through interviews and discussions with teachers and school administrators. Cultures in different regions within China will also be observed. The diversity within classrooms will be observed and discussions will be held about the challenges facing teachers with multicultural classrooms. These observations will also be compared with that of the US in order to gain new perspectives and to better serve students in the United States. Additional small group meetings and informal interviews with teachers, students, and parents will be conducted to increase understanding of the observations and lectures.

**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 COM/DST/ENG/SOC/SPA 494.

*Prerequisite: 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 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.*

**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 (1-12)**

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 (1-12)**

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 (1-12)**

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 (1-12)**

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 636 Diversity, Learning & Technology (3)**

The purpose of this course is to explore the mutual impact of diverse learner populations and technology. The focus of this course is to explore instructional design of media and technology integration that supports learner diversity in all forms. Special attention is devoted to how instructional design can support and foster inclusion of traditionally underrepresented learner populations (ESOL, special education, non-traditional learners, and economic disadvantaged learners). The goals of this course are to provide strategies for designing curriculum and instruction using technology for meeting the needs of diverse, multicultural, special needs, and at-risk learners in K-12 schools. Students will engage in global connections, exploration, and analysis of various technologies to differentiate and/or accommodate instruction for students with diverse learning styles and special needs. This course will emphasize Universal Design as an inclusive model for technology integration.

**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 648 Project Thesis (3-6; maximum 6)**

Each student in the master's program in Instructional Design and Technology is required to complete either a thesis or non-thesis project. Students should be prepared to initiate a proposed topic and scope of either a thesis research paper or thesis project. The student in tandem with her/his faculty advisor will determine negotiate the scope, scale, criteria, and evaluation of the project.

*Prerequisite(s): Completion of all IDT Core courses, PCCR courses and two electives.*

**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 (0 or 4; maximum 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: EHS 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 660 Practicum in School Psychology Practice (0 or 4; maximum 4)**

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 Social, Emotional, and Behavioral Assessment (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 665 Cross-cultural Examination of the United States and China within an Educ. Context (3)**

This course is designed for students gain basic knowledge, including both similarities and differences, revolving around China and America, through an educational context. The goal of this course is to help students broaden their knowledge about varying cultures in order to better understand how teachers can best help students learn and grow. The students will gain a deeper understanding of China and America and what each country faces in the years to come. Students will focus on the challenges and opportunities each culture provides to individuals through examining similarities and differences. Students will explore different culture related topics and come to a conclusion on their pre and post conceptions of the topic. Students will explore and research one topic more in depth to prepare for a research paper.

**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 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 687 Chinese Education through Culture, Customs, History, and Development (3)**

This course is designed for students to gain basic knowledge about the history and cultures of China. The goal of this workshop is to help students gain international experiences and global perspectives on history (the past, present, and future) of China, the culture, and any related issues in order to build and enhance student's ability to work successfully in a global setting. Students will be paired with Chinese students from two universities in a large city and a small or medium sized city, respectively. Students may travel and visit different types of organizations, historical and cultural sites, as well as Chinese families in China. Travels will either be completed in actuality or virtually through the internet and other technological sources. Students will also attend lectures from carefully selected company executives and professors in both US and China if actually traveling to China. Small group meetings and informal interviews during the travel in China will be conducted to enhance student's understanding of the observations and the lectures.

**EDP 688 SPSS Series I (3)**

The goal of this course series is to prepare students with enough working knowledge to use SPSS Statistical Software to start research analyses for their graduate research projects, theses, and dissertations. This is the basic introduction course that deals with data management including creating a SPSS data file, entering data and defining all components and descriptive statistics including creating new variables and conducting analyses and presenting the results. Students will learn the materials and practice in a computer lab and review as well as practice on-line for a week before coming back to the computer lab for the summary and questions and answers section. Students will take web-based tests, and conduct a major project and a few minor projects. Students will post their projects on the web site for the corresponding section. Each student

is also required to review other students' projects and provide on-line comments and feedback to at least two other students' projects.

### EDP 689 SPSS Series II (3)

The goal of this course series is to prepare students with enough working knowledge to use SPSS Statistical Software to conduct research analyses for their graduate research projects, theses, and dissertations. This is a more sophisticated course dealing with more complicated, inferential statistics including conducting basic and more difficult inferential statistical analyses, basic and more difficult inferential statistic output file reading, conducting simple path analyses and creating and examining structural relation models using AMOS. Students will learn the materials and practice in a computer lab and review as well as practice on-line for a week before coming back to the computer lab for the summary and questions and answers section for each one-hour workshop in this series. Students will take web-based tests, and to conduct a major project and a few minor projects. Students will post their projects on the web site for the corresponding section. Each student is also required to review other students' projects and provide on-line comments and feedback to at least two other students' projects.

### 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 (7, 7)

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 102 Introduction to Computing and Engineering (3)

This course introduces students to the computing and engineering disciplines with a focus on electrical, computer and software engineering. The course focuses on various computing and engineering design principles and tools used in the profession. Students will be able to model, implement, and test these principles via projects required throughout the course. This course is open to all majors.  
*Cross-listed with CSE.*

### ECE 205 Electric Circuit Analysis I (4)

Study of electric circuits and networks. Includes resistive circuits, first-order transients, sinusoidal steady-state analysis, and frequency response. Emphasis on basic principles and their application to circuit analysis using linear algebra and calculus. Laboratory component included. 3 Lec 1 Lab.  
*Prerequisite: PHY 182/184. Co-requisite course: MTH 251 or equivalent.*

### ECE 248 Introduction to Electrical System Design Methods and Practice (3)

This course will introduce students to the study and practice of design methods for teams of engineers creating systems. The course will focus on introducing students to modern design methodologies used in the electrical and computer industry to create products including requirements analysis and conception, design, production, testing, and maintenance. Topics include estimating tasks, feature additions and cuts, alpha cuts, beta tests, and team organization and management. Students, in small teams, will practice what they have learned by creating a project using techniques from a particular design methodology (For example, agile development). Students

will then reflect on how their chosen methodology impacted the success/failure of their project.

*Co-requisite: CEC/CPB/ECE 102/MME 102.*

### 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. 1 Lab.

### ECE 289 Computer Organization (3)

Study of the design and interconnection of digital hardware to create computers. Includes principles of Von Neumann computer architecture, data representation, computer arithmetic, memory hierarchy, CPU structure and instruction sets, assembly language programming, performance considerations and alternative computer architectures.

*Prerequisites: ECE 287 and either CSE 174 or CSE 153.*

### ECE 291 Energy Systems Engineering (3)

This course studies power producing systems using fossil and renewable energy sources. The components and operations of power producing systems such as hydro, thermal power plant, nuclear reactor, solar panel, wind turbine, and bioreactor are investigated. Economic decisions and societal and environmental consequences of using various energy sources are emphasized.

*Prerequisite for: PHY 121, 172 or 182 or the instructor's permission.*

### ECE 302 MATLAB® and its engineering applications (3)

This course will introduce students to MATLAB® programming and its applications in engineering problem solving. MATLAB® topics include: programming fundamentals, display and visualization, and advanced topics. Mathematical concepts and theories essential to engineering disciplines will be reviewed and used as practice examples. Students will apply programming skills to solve practical problems, such as circuit analysis, mechanical vibrations and structure analysis, radar pulse compression, image processing, fractals, etc.

*Prerequisites: PHY 182 and MTH 251, or permission of instructor.*

### ECE 303 Computer-Aided Experimentation (3)

Study of theory and application of instrumentation and experimentation including: components and concepts of computer-machine interface systems; design of computer-controlled experimentation for real-time industrial measurement, monitoring, and control; AC power analysis; applications of the Laplace Transform. Laboratory component included. 2 Lec. 1 Lab.

*Prerequisite: ECE 205. Co-requisite: MTH 245 or MTH 347. Cross-listed with MME.*

### 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. 2 Lec. 1 Lab.

*Prerequisite: ECE 205 and MTH 245 or MTH 347.*

### 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. 2 Lec. 1 Lab.

*Prerequisites: ECE 205 or PHY 292/294. Concurrent course: MTH 245 or MTH 347.*

### ECE 306 Signals and Systems (3)

Study of the principles of signals and systems. The course combines lectures, simulation laboratory exercises, and/or 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. Co-requisites: MTH 245 or MTH 347.*

### 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:* ECE 205 and MTH 252 and either MTH 245 or MTH 347.

**ECE 345 Applied Probability and Statistics for Engineers (3)**

Introduces probability and statistics, including applications relevant to electrical and computer engineering. Includes extensive coverage of random variables and introduces random processes.

*Prerequisite:* MTH 251 or equivalent.

**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. 3 Lec. 1 Lab.

*Prerequisite:* ECE 287, CSE 153 or CSE 174.

**ECE 395 Undergraduate Research Immersion Project (1-3; maximum 3)**

This course will introduce students to a special topic in an area of science and/or technology. Students will conduct an in-depth research project. Through carrying out the project, students will experience and reflect on the research process, including literature review, information evaluation, problem definition, data analysis, results interpretation, and potentially a peer-reviewed publication. This course is typically offered only for study-abroad or study-away workshops.

*Prerequisites:* PHY 182 and MTH 251, or permission of instructor.

**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.

*Prerequisites:* 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.

*Prerequisites:* 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.

*Prerequisites:* 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:* 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:* ECE 425 or ECE 426.

**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.

*Prerequisite:* ECE 325. *Co-requisite:* STA 368, STA 301 or ECE 345.

**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. Application of design methodologies in lab exercises and short-term design projects. 2 Lec. 1 Lab.

*Prerequisite:* ECE/MME 303. *Cross-listed with MME.*

**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 MME.*

**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.

*Prerequisites:* ECE 306 and either ECE 345, 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, STA 368 or STA 301; or permission of instructor.

**ECE 465/565 Introduction to GPS (3)**

This course provides a basic understanding of Global Positioning Systems (GPS), including GPS satellite constellation, satellite orbits, ground monitoring stations' functions, GPS receiver working principles, GPS measurement errors and correction techniques, recent advancements in GPS, and applications of GPS. Students will learn to use a variety of GPS receivers and analyze GPS data.

*Prerequisites:* PHY 182 and MTH 251 or equivalent. *Co-requisites:* MTH 222; STA 301, ECE 345 or STA 368.

**ECE 470/570 Special Topics (3)**

Advanced special topics in electrical and computer engineering.

*Prerequisite:* permission of instructor.

**ECE 475/575 Software Receiver Technologies (3)**

The course covers important aspects of software-based Global Positioning System (GPS) receivers, including GPS signal structure, radio frequency front end design, GPS signal acquisition and tracking methods and algorithms, and navigation data extraction using software digital signal processing implementations.

*Prerequisites:* ECE 306 and STA 301 or STA 368 or ECE 345. *Recommended:* ECE 325.

**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:* ECE/MME 303.

**ECE 493/593 Power Electronics (3)**

This course studies the analysis, design, and application of power electronic circuits. It covers the switching characteristics of power semiconductors, PWM (Pulse Width Modulation) techniques for voltage and frequency control, and the DC to DC, DC to AC, and AC to DC power converters.

*Prerequisite:* ECE 304 or PHY 292 and PHY 294.

**ECE 495/595 Electric Machinery and Drives (3)**

This course studies the principle, operation and control of electric machinery. The topics include DC generators and motors, induction

machines, synchronous machines and the position, speed and torque control of these machines.

*Prerequisites:* ECE/MME 303 or ECE 305 or (PHY 292 and PHY 294).

#### **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.

#### **ECE 695 Graduate Research Project (1-2; maximum 3)**

Individual research to satisfy the research project requirement for the MS in Computational Science and Engineering course intensive (non-thesis) option, Electrical and Computer Systems concentration. Maximum of three credits can be applied to graduation for the course intensive (non-thesis) option. Not open to Research (thesis) option students.

*Prerequisite:* graduate standing and permission of instructor or academic advisor.

#### **ECE 670 Advanced Topics in Electrical and Computer Engineering (1-3; maximum 6)**

Advanced topics in electrical and computer engineering. Students are allowed to enroll into the course for a maximum of 6 credits if the contents offered are sufficiently different.

*Prerequisite:* graduate standing and permission of course instructor or coordinator.

#### **ECE 700 Research for Master's Thesis (0-9)**

Study under graduate faculty supervision of a research problem related to electrical and computer systems. Maximum of six credit hours of ECE 700 may be applied toward fulfillment of the thesis research requirement for the Master of Science in Computational Science and Engineering.

*Prerequisite:* permission of student's graduate advisor.

## **ENGINEERING AND COMPUTING COURSES (CEC College of Engineering and Computing)**

#### **CEC 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.

#### **CEC 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.

*Co-requisite:* MTH 151 or equivalent.

#### **CEC 130 Special Topics and Student Projects I (1-3)**

Introductory level course focused on a special topic and/or interdisciplinary student project.

*Cross-listed with ESP.*

#### **CEC 205, 206 Agile Launchpad I, II (3, 3)**

Agile is a term for a set of values, principles, and practices that have been shown to improve the efficiency, productivity, and quality of software development and delivery. The key objectives are to deliver working software that meets the needs of a customer while mitigating risk in the development process. This set of courses addresses the theory and practice of Agile in the context of globally dispersed teams. Students will learn and apply the values, principles, and practices of Agile while working in multi-disciplinary international teams. The course includes a significant practicum experience in which students collaborate with

developers in other countries such as Australia, India, or China to develop working software using the Agile approach. Students will need to collaborate across time zones, cultural differences, and communication barriers.

*Prerequisite:* permission of instructor.

#### **CEC 230 Special Topics and Student Projects II (1-3)**

Fundamental activities in the research and implementation of a special topic and/or interdisciplinary student project.

*Prerequisite:* permission of instructor. *Cross-listed with ESP.*

#### **CEC 241 Leadership in the Real World Seminar (1)**

Students will interact with seasoned leaders from business, industry, government, and other organizations to expand and enhance their understanding of current leadership challenges in today's world. Students will participate in a series of professional seminars, typically with executives and leaders of organizations who are external to Miami University and many of whom started their careers in engineering and applied science fields. In addition to the seminars, students will research aspects of leadership and the seminar speakers, produce several reflection papers, and a final presentation synthesizing information from the course to create their personal leadership philosophy. This course is only open to majors in the College of Engineering and Computing. The course is designed as a tier-1 honors experience, but is open to other students.

*Prerequisite:* CEC 101 and sophomore standing; or permission of instructor.

#### **CEC 266 Metal on Metal: Engineering and Globalization in Heavy Metal Music (3) MPF**

This course addresses the linkages among heavy metal music, global culture and engineering developments. Heavy metal is a truly global popular music with major impacts from Europe, Asia, the Americas and beyond. Advances in various technologies have extensively influenced heavy metal, enabling some of its most defining characteristics. This course explores the interplays of technology, music and culture by integrating the powerful history of metal with an overview of the engineering impacts. Students will engage in demonstrations and discussions of the musical breadth along with the engineering technologies. IIB, V, Cul.

#### **CEC 291, 292 Personal Leadership I, II (2, 2)**

This set of courses is designed for the CEC Leadership Institute sophomore cohort. They introduce the various dimensions of personal leadership to assist students in understanding the traits for becoming a better leader in their professional and personal lives. These courses span an academic year and serve as a dynamic, integrative and practical introduction to a leadership development program. Students will explore emotional intelligence, teamwork, crucial conversations and group dynamics. The activities in these courses will help students define individual personality preferences, strengths and areas of development and understand how to utilize the self-awareness to become a more effective leader. With the guidance of advisors, students will create their individual leadership plans. Students will also interact with a variety of executives and professionals from diverse industries.

*Prerequisite for CEC 291:* CEC 101. *Prerequisite for CEC 292:* CEC 291.

#### **CEC 330 Special Topics and Student Projects III (1-3; maximum 6)**

Intermediate-level activities in the research, management and implementation of a special topic or project in engineering and computing with a focus on innovation.

*Prerequisite:* CEC 230.

#### **CEC 391, 392 People Leadership II (2, 2)**

This set of courses is designed for the CEC Leadership Institute junior cohort. They focus on various dimensions of leading others, and assist students in becoming better leaders in their professional and personal lives. These courses span the second year of a dynamic, integrative and practical leadership development program for the selective cohort of majors in the College of Engineering and Computing. The students will explore creativity (brainstorming, creative conflict, storyboarding) negotiation, listening and speaking skills, conducting meetings, diversity (cultural, gender, age awareness), how others perceive them (360 reviews), and related topics. Students will continue to implement and revise their personal leadership development plan created in their first year, and deepen their relationships with their executive mentor and their peers.

*Prerequisite for CEC 391:* CEC 292. *Prerequisite for CEC 392:* CEC 391.

#### **CEC 491, 492 Strategic Leadership I, II (2, 2)**

This set of courses is designed for the CEC Leadership Institute senior cohort. These courses span the third and final year of a dynamic, integrative and practical leadership development program and focus on various dimensions of strategic leadership and the transition from college to future careers. Topics to be explored include strategic planning, customer focus, decision analysis,

ethics/values, global and diversity perspectives, innovation, and the language of business.

*Prerequisite for CEC 491: CEC 392. Prerequisite for CEC 492: CEC 491.*

## 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. .

*Prerequisite: junior standing. STA 368, ISA 205 or equivalent. Cross-listed with MGT.*

### EGM 411/511 Leading and Managing Projects (3)

Addresses fundamental aspects of leading and managing complex projects including: organizational leadership, strategic planning and project selection, project life cycle planning, estimating project schedule and cost, planning, organizing, directing and monitoring resources, analyzing and managing risk, team building and conflict management, assessing progress and performance, project audit and closure, and related topics.

*Prerequisites: STA 301, ECE 345, ISA 205, or STA 261; or equivalent. Cross-listed with MGT.*

## 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. 2 Lec. 1 Lab. (Mechanical technology)

*Prerequisite: two years of high school algebra.*

### 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. 2 Lec. 1 Lab. (Mechanical technology)

*Prerequisite: two years of high school algebra. Co-requisite: MTH 125.*

### ENT 181 Managing & Troubleshooting PCs (3)

This course provides an in-depth study of personal computer hardware and operating systems. Focus is on identification, installation, configuration, and troubleshooting of field replaceable components. The knowledge and skills obtained in this course will prepare the student for the CompTIA A+ Certification Computer Technicians Exam.

### ENT 192 Circuit Analysis I (3)

Detailed study of d-c electric circuits and related bilateral devices. Conventional and computer simulation circuit analysis techniques are utilized. 2 Lec. 1 Lab. (Electrical technology)

*Prerequisite: high school algebra.*

### ENT 193 Circuit Analysis II (3)

A detailed study of analog a-c electric networks, including resistive, reactive, and combinational thereof. Analysis techniques include

conventional and computerized modeling methodology. 2 Lec. 1 Lab. (Electrical technology)

*Prerequisite: ENT 192, MTH 125.*

### 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. 2 Lec. 1 Lab. (Electrical technology)

*Prerequisite: ENT 192. Co-requisite: ENT 193.*

### 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. Offered infrequently.

*Prerequisite: sophomore standing and departmental approval.*

### 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.

*Prerequisite: permission of departmental internship coordinator. Cross-listed with BTE/CIT.*

### 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. 2 Lec. 1 Lab. (Mechanical Technology)

*Prerequisite: ENT 135, MTH 125.*

### 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. 2 Lec. 1 Lab. (Mechanical technology)

*Prerequisite: ENT 152, CSE 153, 163, or equivalent recommended.*

### 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. (Mechanical technology)

*Prerequisite: MTH 125. Co-requisite: PHY 171 or equivalent recommended.*

### 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. 2 Lec. 1 Lab. (Mechanical technology)

*Prerequisite: ENT 271.*

### 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. 2 Lec. 1 Lab. (Mechanical technology)

*Prerequisite: ENT 272.*

### 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. 2 Lec. 1 Lab. (Electrical technology)

*Prerequisite: ENT 196.*

### ENT 293 Digital Systems (3)

Principles and applications of digital systems. Emphasis placed on the study of combinational and sequential logic from a systems approach. Actual ICs and Programmable logic devices (PLDs) are used as well as digital timing diagrams and waveforms. 2 Lec. 1 Lab. (Electrical technology)

*Co-requisite: MTH 125.*

### 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.

**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. 2 Lec. 1 Lab. (Electrical technology)

*Prerequisite:* CSE 153.

**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. 2 Lec. 1 Lab.

*Prerequisite:* ENT 192.

**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. 2 Lec. 1 Lab.

*Prerequisite:* ENT 271 and MTH 151 or equivalent.

**ENT 303 Digital Signal Processing Technology (3)**

Study of how digital signal processing is used in industry, including spectral analyzers, analog and digital filtering, Fourier series and transforms, data compression, image processing, and DSP hardware design issues. 2 Lec. 1 Lab.

*Prerequisites:* ENT 295, MTH 151, STA 301.

**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. 2 Lec. 1 Lab.

*Prerequisite:* ENT 271 and MTH 151 or equivalent.

**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. 2 Lec. 1 Lab.

*Prerequisite:* CSE 153 and ENT 193; or equivalent and completion of an engineering technology associate's degree or permission of instructor.

**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 or equivalent, 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. 3 Lec. 1 Lab.

*Co-requisite:* MTH 251 or equivalent.

**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. 2 Lec. 1 Lab.

*Prerequisite:* ENT 333.

**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. 2 Lec. 1 Lab.

*Prerequisite:* ENT 311 and MTH 151 or equivalent.

**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.

*Prerequisite:* ENT 311.

**ENT 403 Wireless Communication and Networks (3)**

Fundamental techniques of wireless communication, signal transmission, encoding, propagation theory, cellular wireless networks, Wireless LANs, Wireless Access Protocol (WAP), Wi-Fi, Bluetooth and IEEE 802.15.4 ZigBee protocols, security in wireless networks. 2 Lec. 1 Lab.

*Prerequisite:* ENT 303.

**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. 2 Lec. 1 Lab.

*Prerequisite:* ENT 333.

**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 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. 2 Lec. 1 Lab.

*Prerequisite:* CSE 153, STA 368, and MTH 251 or equivalent.

**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. 2 Lec. 1 Lab.  
*Prerequisite:* ENT 301, ENT 333.

#### 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 or equivalent, 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)

#### 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 U.S. Cultures & Composition for Second-Language Writers (4)

For students who need further work in English before enrolling in Composition and Rhetoric. 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 (4 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 Composition and Rhetoric for Second-Language Writers (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 Composition and Rhetoric (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. I

*Prerequisite:* ENG 111.

#### 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. IIB. CAS-B-LIT.

*Prerequisite or co-requisite:* Composition and Rhetoric.

#### 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. IIB, Cul.  
*Cross-listed with DST.*

**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.*

**ENG 172 Rhetoric, Persuasion, and Culture (3)**

Rhetoric and persuasion shape every aspect of our lives — from politics and education to personal relationships and entertainment. Through the analysis of historical and contemporary texts and the cultural contexts in which these texts circulate, this course introduces theories and principles of rhetoric and persuasion to teach students to identify and evaluate the rhetorics and persuasive texts that shape their lives and their cultures. CAS-B.

**Advanced English Courses**

**Note:** ENG 111 or 112 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 Special Topics in 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. IIC.  
*Cross-listed with COM.*

**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 213 Writing for 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: MAC 146, or permission of instructor. Cross-listed with MAC.*

**ENG 215 Workplace Writing (3)**

Practice in varieties of workplace correspondence and communication with emphasis on writing clear, concise, and accurate informal and formal reports, including email, resumes, cover letters, incident reports, accident reports, sales reports, marketing plans, activity reports, progress reports, change controls, evaluation/performance reports, recommendation reports, and white papers. Offered only on Regional 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. CAS-B-LIT.  
*Cross-listed with FST.*

**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. CAS-B-LIT.

*Cross-listed with FST.*

**ENG 222 The Rhetoric of Information and Data Visualization (3)**

Methods, principles, and techniques for creating and critiquing verbal and visual arguments using information and quantitative data. Emphasizes a rhetorical and ethical perspective toward data representation and visualization, considering how to develop and design quantitative arguments and visual representations. Students will work with a variety of tools and techniques for presenting visual data in print and digital media. CAS-QL.

**ENG 223 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 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.*

**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. Offered infrequently. CAS-B-LIT.

**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. CAS-B-LIT.  
*Cross-listed with WGS.*

**ENG 233 British Women Writers (3) MPT**

Works by British women, from the 19th century to the present. CAS-B-LIT.  
*Cross-listed with WGS.*

**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. 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.*

**ENG 237 GLBTQ Literature (3)**

Study of literature by and about sexual minorities, including Gay, Lesbian, Bisexual, Transgendered and Queer identities, cultural contexts, and social movements. CAS-B-LIT.  
*Cross-listed with WGS.*

**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.*

**ENG 245 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. IIIA. CAS-B.  
*Cross-listed with COM/DST 247.*

**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. IIB, Cul. CAS-B-LIT.  
*Cross-listed with AMS.*

**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. IIB, Cul. CAS-B-LIT.  
*Cross-listed with AMS.*

**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. IIB, Cul. CAS-B-LIT.  
*Cross-listed with AAA/AMS.*

**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.

**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. CAS-B-LIT.  
*Cross-listed with RUS.*

**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. IIB, Cul. Bas-B-LIT.  
*Cross-listed with LAS.*

**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. IIB. CAS-B-LIT.  
*Cross-listed with RUS.*

**ENG 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) MPF, MPT**

Treatment of selected works of Russian literature (realism, modernism, post-modernism) with attention to Tolstoy, Chekhov, Bunin, Sologub Bulgakov, Babel, Solzhenitsyn, and Nabokov. CAS-B-LIT.  
*Cross-listed with RUS.*

**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.*

**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. CAS-B-LIT.

**Notes:** open only to Middle Childhood Language Arts majors who have completed the Composition and Rhetoric requirement. Credit for graduation will not be given for more than one of ENG 262 and 262M.

**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.  
*Cross-listed with FRE/FST/GER.*

**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. Offered infrequently. CAS-B-LIT.  
*Cross-listed with RUS 257.*

**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. IIB, Cul, H. CAS-B-LIT.  
*Cross-listed with AMS.*

**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 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. V. CAS-E.  
*Cross-listed with ATH and GER 309, SPN 303.*

**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 310 Special Topics in Rhetoric and Persuasion (3)**

Intensive study of one or more specialized areas or elements of rhetoric and/or persuasion--such as ethnic/comparative, feminist, rhetoric of the public sphere, rhetoric of science, or rhetorical theories of delivery. CAS-B.

*Recommended prerequisite:* ENG 223.

**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 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)**

Theory, technique, and practice of playwriting.

*Prerequisite:* permission of instructor. *Cross-listed with THE.*

**ENG 315 Business Writing (3)**

Study of writing techniques used in business environments and practice in applying them.

**ENG 316 Legal Writing and Reasoning (3)**

Students in this course will learn strategies for effective and persuasive legal writing, including the appropriate methodologies for legal reading, research and analysis. Students will gain experience writing in a number of genres, including case briefs, memoranda of law, and professional correspondence.

*Prerequisite:* ENG 111/112 or waiver of the 111/112 requirement (through AP credit, honors program etc.); sophomore standing or above. *Cross-listed with BLS.*

**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 324 Ethics and Digital Media (3)**

Students will focus on key ethical issues related to online writing, communication, and visual design. Course will introduce key ethical principles, including principles of rhetoric, communication, and design ethics, as well as key principles of professional ethics as articulated in fields like professional writing, technical communication, and graphic design. Topics include intellectual property, access and universal design, privacy and surveillance, visual representation and manipulation, global communication and cultural difference, economic issues of justice and equity, and professional rhetorics.

*Cross-listed with MAC/IMS.*

**ENG 325 Russian Reception of Classical Culture (3)**

Examines a variety of forms and poetic expressions in both modern (Russian) and ancient poetry. Introduces students to the way in which Russian literature and especially poetry responded to Greco-Roman antiquity. Analyzes how the study of classical antiquity, with its rich mythological tradition and history, represented to the Russian literary elite a window into the West and an opportunity to establish a Russian literary heritage within Western literary canon. All readings in English translation.

*Cross-listed with CLS/RUS.*

**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 332 Early British Women Writers (3)**

Survey of women writers from the beginnings of English to 1800. Includes writers such as Margery Kempe, Julian of Norwich, Elizabeth Carey, Aemelia Lanyer, Mary Wroth, Margaret Cavendish, Lucy Hutchinson, Aphra Behn, Frances Burney, and Anne Radcliffe.

**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. Offered infrequently CAS-B-LIT.

*Cross-listed with BWS.*

**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. CAS-B-LIT.

*Cross-listed with BWS.*

**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. CAS-B-LIT.

*Cross-listed with BWS.*

**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. CAS-B-LIT.

*Cross-listed with AMS.*

**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.*

**ENG 351 Cultural Politics of Gender and Sexuality in Asian/America (3)**

Intensive interdisciplinary study of imaginative representations of the encounters between "Asia" and "America," broadly conceived, particularly the entangled relations among their diverse constituencies in the contexts of colonialism and globalization. Key topics include feminist critique of gendered violence and human rights issues; Euro-American militarism and sex tourism; the emergence of new categories of sex, gender, and kinship as lived experiences mediated by transnational consumer culture and institutional structures; masculinity and Asian diasporic nationalisms; pan-Asian movements against racism, colonialism, and neoliberalism both in Asia and the U.S.; and the emergence of new critical, artistic and aesthetic practices.

*Cross-listed with AAA/WGS.*

**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.*

**ENG 359 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 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 as 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. Offered every two years. CAS-B-LIT.

*Cross-listed with ITL.*

**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. CAS-B-LIT.

*Cross-listed with WGS.*

**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. CAS-B-LIT.

*Cross-listed with AAA.*

**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 374 English Renaissance Drama (3)**

Survey of drama from the sixteenth and seventeenth centuries; includes plays by Christopher Marlowe, Ben Jonson, Thomas Middleton, Thomas Dekker, Francis Beaumont, John Fletcher, John Marston, John Ford, and others.

**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/FST/POR/WGS.*

**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. Offered infrequently CAS-B-LIT.

*Cross-listed with AMS.*

**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. CAS-B-LIT.

*Cross-listed with ITL.*

**ENG 405 Advanced Linguistics: The Research Program of Noam Chomsky (3) MPC**

In this Capstone course, students examine the evolving linguistic subfield of generative grammar, pioneered by Noam Chomsky, which revolutionized the study of language and was a primary contributor to the development of the field of cognitive science. Students have the experience of collecting data and identifying patterns within that data, with a goal of forming and testing various hypotheses concerning syntactic rules that allow for construction of a descriptively adequate grammar of a given language and, in a broader sense, construction of a model of the general mental representation of language. 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 407/507 Interactive Business Communication (3)**

Writing and communicating effectively within business contexts, with an emphasis on researching, reporting, proposing, and maintaining relationships using digitally networked interactive technologies.

*Cross-listed with IMS.*

**ENG 409 Topics in Asian/Asian American Studies (3)**

In-depth examination of political-economic relations, historical and socio-cultural formations, ethno-linguistic, rhetorical, and religious practices, and literary and artistic representations connecting and affecting Asia and communities of Asian descent in the U.S. and in the diasporas. Detailed descriptions of topics available from the Director of the Asian/Asian American Studies Program.

*Cross-listed with AAA 410.*

**ENG 410 Selected Topics in Linguistics (3)**

Focus on a single topic per term, such as field methods, the structure of a specific language, linguistic geography, sociolinguistics or ethnolinguistics.

*Prerequisite: ENG 303 or equivalent.*

**ENG 411/511 Visual Rhetoric (3)**

Provides an introduction to the theory and techniques of visual rhetoric used by professional communicators. Covers elements of layout, design, and typography, giving students practice with short and longer print texts and non-print media.

*Prerequisite: ENG 224. Cross-listed with IMS.*

**ENG 412/512 Print and Digital Editing (3) MPT**

Examines principles and practices of editors. Preparing communications for publication emphasized. Students edit their own and other students' work, and that of outside clients.

**ENG 413/513 Grant and Proposal Writing (3)**

Intensive study of the principles and processes involved with preparing grants and proposals.

**ENG 414/514 Usability and User Experience (3)**

Advanced study of theories and practices of usability connected with the production of documentation in print and digital media.

**ENG 415 Capstone in Professional Writing (3) MPC**

Practicum in theory and practice of project management specifically designed to provide professional writing majors with community-based writing experience and teach communicator/client relationships, problem-solving, and professionalism in conduct and product.

*Prerequisite: ENG 223.*

**ENG 416/516 Writing for Global Audiences (3)**

This course focuses on how to write effectively in print and digital media for global audiences. Students will research cross-cultural written communication, including networked communication, and they will develop intercultural literacy skills necessary for writing to global audiences. Through frequent writing assignments, students will learn and enact the theories and strategies for targeting print and digital communications to international and culturally diverse audiences.

*Cross-listed with IMS.*

**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 MAC.*

**ENG 429/529 Environmental Communication (3)**

Examines theories, principles, and methods for communicating environmental concepts and scientific information verbally, textually and visually to a range of audiences and stakeholders. Students will work with scientists, peer communities, clients, and focus groups to develop effective and appropriate environmental communications across mediums. Projects may include producing scientific posters, writing reviews of research projects on an environmental problem, preparing oral presentations, creating visual story of scientific work, interviewing scientists for a general news story, writing environmental proposals, and facilitating focus groups.

*Cross-listed with IES/JRN.*

**ENG 430 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 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/WGS.*

**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 WGS.*

**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/WGS.*

**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. Offered infrequently.

*Cross-listed with WGS.*

**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 480 English Honors (3)**

Students interested in earning honors in English must confer with associate chair.

**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.

*Prerequisite:* permission of instructor. *Cross-listed with DST/SPA/COM/SOC and EDP 489.*

**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 631 Low-Residency MFA 10-day Residency (4; maximum 16)**

An intensive 10-day residency period open to matriculated members of the Low-Residency MFA program in Creative Writing. Highlights include writing workshops focused on student writing, as well as craft lectures and readings by faculty members and distinguished visiting writers.

**ENG 632 First Non-Residential Semester Low-Residency MFA in Creative Writing (5)**

Involves an exchange of four writing packets of original work with an on-line mentor. Mentors will respond with detailed critiques of the submitted packets, and students will revise in response to those critiques. In addition, students will read and write responses to 6-8 contemporary and/or canonical texts in their genre.

*Co-requisite:* ENG 631.

**ENG 633 Second Non-Residential Semester in Low-Residency MFA in Creative Writing (5)**

Involves an exchange of four writing packets of original work with an on-line mentor. Mentors will respond with detailed critiques of the submitted packets, and students will revise in response to those critiques. In addition, students will read and write responses to 6-8 contemporary and/or canonical texts in their genre.

*Prerequisite:* ENG 632. *Co-requisite:* ENG 631.

**ENG 634 Third Non-Residential Semester Low-Residency MFA in Creative Writing (4)**

Involves an exchange of four writing packets of original work with an on-line mentor. Mentors will respond with detailed critiques of the submitted packets, and students will revise in response to those critiques.

*Prerequisite:* ENG 632, 633. *Co-requisite:* ENG 631.

**ENG 635 Genre-Specific Literature Seminar in Low-Residency MFA in Creative Writing (4)**

New advances in and easier access to remote learning technologies such as Google Hangout, will facilitate real-time discussion of canonical and contemporary texts in Low-Residency MFA students' chosen genre. This required course will help prepare students for an hour-long oral exam on a 25-book reading list that will take place during a student's fourth iteration of ENG 631.

*Prerequisite:* ENG 632. *Co-requisite:* ENG 633.

**ENG 636 Fourth Non-Residential Semester in Low-Residency MFA in Creative Writing (4)**

ENG 636 will be devoted to completing a book-length final project, based upon work begun during the previous three non-residential semesters. During ENG 636, students will work closely with their final project director. Once the final project has been approved by their director and a second faculty member, students will be allowed to conclude their course of study by attending a required fifth 10-day residency, ENG 637, at which time students will give a public reading from their completed final project and help lead a workshop.

*Prerequisite:* ENG 633 and 634. *Co-requisite:* ENG 631 and 635.

**ENG 637 Low-Residency MFA Final 10-day Residency (0)**

An intensive 10-day residency period open to matriculated members of the Low-Residency MFA program in Creative Writing who have completed all other course work and whose Final Project has been approved. Highlights include writing workshops focused on student writing, as well as craft lectures and readings by faculty members and distinguished visiting writers. In addition, students in ENG 637 will give a public reading from their Final Project and help lead a writing workshop.

*Prerequisites:* ENG 631, 632, 633, 634, 635, 636.

**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 of instructor.*

**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 720 Issues in Digital Composition (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 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 Histories and Theories of Rhetoric (4)**

Study in one or more of the major and/or minor histories and theories of rhetoric, from the Sophists and Aristotle to the 21st century.

**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.*

**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 760 Special Topics in Rhetoric (4; maximum 12)**

Intensive study of one or more specialized areas or elements of rhetoric—such as ethnic/comparative, feminist, religious, or disability rhetorics; rhetoric of the public sphere; or ancient and modern rhetorical theories of invention.

**ENG 770 Issues in Professional Writing (4; maximum 12)**

Intensive study of one or more elements of professional or technical communication, intellectual property, the production and analysis of print and digital genres, usability and other writing research



methodologies, and workplace, global, and mobile communication. Emphasis on theory, research, and practice.

**ENG 850 Research of Doctoral Dissertation (1-16; minimum 16, maximum 60 depending on departmental requirements)**

## ENTREPRENEURSHIP COURSES (ESP Business)

### ESP 101 Entrepreneurship Foundations (1)

This sprint course will provide a hands-on approach to understanding entrepreneurship in start-up, social, and corporate settings. The course will analyze and investigate the current trends and opportunities in entrepreneurship. Students will meet with and learn from successful entrepreneurs about their lives and work as entrepreneurs. The course will focus on the skills and tactics necessary to succeed in various entrepreneurial settings, and discuss how students can apply these skills to their personal and professional passions and interests. By collaborating with like-minded peers and award winning faculty, students will learn what it takes to turn "possibilities" into "probabilities".

### ESP 102 Startup Bootcamp: Inception to Prototype (1)

This course immerses students in the methods and practices of starting a business. In a fast-paced environment, for the duration of one weekend, students learn how to build companies, teams and insight. Over the course of the weekend, students will present ideas, form teams, and create a business model canvas. They will pitch their business concepts to real investors and practitioners, who will provide mentorship, coaching and feedback. The course is designed to integrate decision making, critical thinking, problem solving, and leadership skills in an environment similar to that of the startup business world. The course will provide an understanding of the tools necessary to succeed in any business venture.

### ESP 130 Special Topics and Student Projects I (1-3)

Introductory level course focused on a special topic and/or interdisciplinary student project.  
*Cross-listed with CEC.*

### 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.

### ESP 230 Special Topics and Student Projects II (1-3)

Fundamental activities in the research and implementation of a special topic and/or interdisciplinary student project.  
*Prerequisite: permission of instructor. Cross-listed with CEC.*

### ESP 252 Entrepreneurial Mindset: Creativity and Organization (3)

In this class, students will learn concepts of leadership and creativity as it relates to the organization of entrepreneurial ventures. Students will learn the role of creative thinking and leadership models in the growth of entrepreneurial organizations. In both parts of the class, the environment is highly interactive and experiential.  
*Co-requisite: ESP 101.*

### 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 251 Entrepreneurial Value Creation and Capture (3)

In this class, students will focus on the marketing and financial issues confronting entrepreneurial venture. This course looks at the challenges entrepreneurs face in attempting to start, grow and build ventures, specifically aspects related to customer acquisition, customer retention, and capital resources. Students are exposed to tools, concepts, and approaches related to marketing and financial

operations of entrepreneurial ventures with emphasis on the application of this material using a series of real-world cases and examples. Class environment is highly interactive and experiential.

### 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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.*

### 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 intrapreneurs.

*Prerequisite: 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 SCIENCES COURSES, INSTITUTE FOR THE ENVIRONMENT and SUSTAINABILITY (IES Interdepartmental)

### IES 175 First Year Seminar on the Environment and Sustainability (1)

Introduces students to the interdisciplinary approaches in environmental science and sustainability of natural and human systems.

### 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.

*Prerequisites:* CHM 137 or CHM 141 or equivalent, MTH 151 or equivalent. *Cross-listed with CPB.*

### IES 274 Introduction to Environment and Sustainability (3)

Introduction to environmental and sustainability principles from social science and natural science perspectives. Critical analysis of environment and sustainability-related problems and resolution strategies. Review of foundational concepts and case studies, which may include environmental history, biotic and natural resources, energy and climate, planning and design, organizational management and policy, and sustainable development.

### IES 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) BIO 113 or BIO/MBI 115 or BIO 191; or 2) CHM 111 or CHM 142/5; and 3) GLG 111 or 121 or 141 or GEO 121.

### IES 409 Sustainability: European challenges and strategies (3)

Examines social and environmental dimensions of sustainability challenges, and explore strategies for sustainability in European lifestyles, infrastructure, transport, business and policy, with a comparative look at the U.S. Anthropological and geographic method and theory ground a holistic perspective on human-environment relations, which students apply in their exploration of relevant issues in architecture and planning, business, engineering, social work, and natural and social sciences. Special attention is given to competing visions and priorities about what should be sustained, and for whom, and to resulting tensions and conflicts.

*Cross-listed with ATH/GEO.*

### IES 411/511 Environmental Protocols (4)

Lecture/field laboratory course will integrate the collection, analysis, management, evaluation and presentation of environmental measurements. One lab and two lectures per week. Appropriate for all environmental practitioners.

### 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 413/513/GLG 413/513/LAS 413/513.*

### IES 429/529 Environmental Communication (3)

Examines theories, principles, and methods for communicating environmental concepts and scientific information verbally, textually and visually to a range of audiences and stakeholders. Students will work with scientists, peer communities, clients, and focus groups to develop effective and appropriate environmental communications across mediums. Projects may include producing scientific posters, writing reviews of research projects on an environmental problem, preparing oral presentations, creating visual story of scientific work, interviewing scientists for a general news story, writing environmental proposals, and facilitating focus groups.

*Cross-listed with ENG/JRN.*

### 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 439/539 Stream Assessment Protocols for Habitat and Water Quality (2)

An introduction to principles and methods for assessment of surface water quality and habitat. The course prepares students with practical skills needed to attain Qualified Data Collector (QDC) status with the Ohio Environmental Protection Agency using Qualitative Habitat Evaluation Index (QHEI) and chemical water quality to assess the condition of streams. Lecture and field activities will help students attain Level 1 QDC status for chemical water quality analysis and Level 2 QDC status for QHEI. Independent assessments of streams, individual work on study plans, and application to the state is required for OEPA certification.

### IES 440/540 Contemporary Topics in Environmental Sciences (1-3; maximum 3)

An examination of historical and current world environmental conditions.

### 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 474 Sustainability in Practice (3)

Application of sustainability principles to social and environmental problem solving, in an inter-disciplinary and project-based setting. Collaborative design of innovative strategies for addressing and resolving environmental concerns. Reflection on practical challenges of implementing sustainability principles in practice.

*Prerequisite:* IES 274 or permission of instructor.

### IES 494/594 Sustainability Perspectives in Resources and Business (3) MPC

Provides students with interdisciplinary perspectives of sustainability in business and resource management through

consideration of the economic, social, and environmental value of organizations. The course covers principles, case studies, and best practices used by organizations in several areas of sustainability, such as energy efficiency and alternatives, waste management and recycling, ecosystem services, product redesign and life cycle management, resource management, and sustainability planning and reporting.

*Prerequisite(s): BIO 121, BIO 131, GLG 121, IES 274, or IES 275; ECO 201. Cross-listed with BUS.*

#### **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 graduate program.*

#### **IES 611 Environmental Problem Solving and Analysis (1)**

Interdisciplinary methodologies employed in solving environmental problems, with emphasis on problem definition and scoping, stakeholder involvement, developing and analyzing alternatives, and implementation of solutions.

*Prerequisite: admission to IES graduate program or permission of instructor.*

#### **IES 620 Topic Seminar (1)**

Seminar on environmental topics of current importance such as environmental impact and risk assessment.

*Prerequisite: admission to IES graduate program or permission of instructor.*

#### **IES 642 Amazon: Avian & Tropical Ecology (7)**

In the Amazonian Neotropical regions of Peru, reality has attained mythic proportions: more than 400 species of mammal, 1,300 bird species, 3,000 fish, 40,000 plants, and 2.5 million insect species. And still counting. Why is this area of South America the most diverse on the planet? How have the varied human groups that inhabit this region adapted to their unique environments? And perhaps the most relevant question for life on Earth, what is the future of the Amazon? Students travel to the Peruvian Amazon rainforest and work with educators, researchers, and local communities to better understand the evolution and maintenance of biodiversity in this region, and to experience firsthand the effects of human interventions in the Amazon, from deforestation and urbanization to restoration efforts by local groups. Prior to and following the field experience in the Amazon, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 643 Australia: Great Barrier Reef (7)**

One of the seven wonders of the natural world, the Great Barrier Reef lies in the clear blue waters off the northeast coast of Australia. This complex reef system is not only the world's greatest expanse of coral, it is the Earth's largest living structure, a massive, beautiful, and ancient biological phenomenon of bewildering diversity and immense ecological significance. This graduate course is offered jointly with Reef HQ Aquarium, Australia's National Education Centre for the Great Barrier Reef. We sleep near the corals in the aquarium itself, venturing forth on several excursions for direct research on the Great Barrier Reef, and hiking in some of Australia's unique terrestrial habitats. Discussion topics include marine science issues, citizen engagement in marine science and environmental stewardship. Prior to and following the field experience in Australia, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 644 Baja: Field Methods (7)**

Students discover the rich waters and terrestrial ecosystems of Baja's UNESCO World Heritage site and biosphere reserve on the Sea of Cortez. Bahía de los Ángeles is a unique ecoregion with remarkable marine and terrestrial environments. Students also explore Rancho San Gregorio, a family-owned ranch located in a small canyon where its isolation and climate make it a hotspot for desert investigations. Students gain proficiency in applying field methods to ecological questions and conservation practice. A premise of this course is that field methods are not only essential for ecological research, they can serve as the basis for participatory education, public engagement in science, and community-based environmental stewardship. Many groups, from teachers leading schoolyard ecology to parataxonomists involved in ethnobotanical research, share a need for reliable information obtained through robust field methods to build understanding and to promote informed action. Prior to and following the field experience in Baja, students complete coursework

via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 645 Belize: Approaches to Environmental Stewardship (7)**

Students join our partner, the Belize Zoo, and explore diverse terrestrial, coastal, and coral reef communities of Belize, while learning about conservation programs on such species as harpy eagles, jaguars, manatees, and howler monkeys. Possible investigations include monitoring manatee population dynamics, human influence on coral reefs, aquatic mangrove species sampling, and species behavior studies at the Belize Zoo. Discover the power of inquiry to generate knowledge and inspire conservation. All students will have the chance to conduct an investigation of the local ecosystem, asking their own questions, collecting data, and presenting conclusions. Prior to and following the field experience in Belize, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 646 Borneo: Primate Conservation (7)**

Borneo's primate community is exceptionally rich, including proboscis monkeys, which occur only in Borneo, leaf monkey, macaque, gibbons, tarsier and slow loris. Of greatest conservation concern is the orangutan, which occurs naturally on only two islands in the world, Borneo and Sumatra, and is under increasingly severe pressure, primarily from habitat loss. The orangutan, the only great ape in Asia, may completely vanish from the wild within two decades. Partnered with the Woodland Park Zoo, we will join researchers from the NGO Hutan and the Danau Girang Field Centre, and villagers of the Kinabatangan region who are responsible for model community-based efforts to preserve orangutans, Bornean pygmy elephants, and other species. In addition to exploring primatological field methods, students will work with local groups and develop new ways to engage communities worldwide in saving orangutans and other wildlife. Prior to and following the field experience in Borneo, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 647 Guyana: Local Wisdom & Conservation (7)**

Guyana's rain forests are part of the Guiana Shield considered one of the last four Frontier Forests in the world. Guyana is famous for its relative abundance of iconic Amazonian species such as jaguars, arapaima (a "living fossil" and one of the largest freshwater fishes in the world), harpy eagles, giant anteaters, giant river otter, and the giant water lily. Guyana is also culturally and ethnically diverse. We will spend most of our time with the Makushi, an indigenous group that has lived in these forests and savannas for thousands of years. The Makushi and their lands face a striking transition as the forces of development provide new opportunities and challenges, the greatest perhaps being the rapid extinction of traditional knowledge. Conscious of the value of indigenous and non-indigenous knowledge, Guyana's Makushi people are becoming masters of straddling both worlds. Prior to and following the field experience in Guyana, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 648 Hawai'i: Saving Species (7)**

The extraordinary island ecosystems of Hawai'i evolved in isolation over millions of years, and the islands have long been home to species that occur nowhere else on the planet. However, since the arrival of humans, native species have been under tremendous threat, and by many measures Hawai'i is becoming one of the United States' most profound conservation failures. Habitat destruction, environmental degradation, introduced species, and other forces have made Hawai'i a global center for extinction. Students in this course will join with San Diego Zoo Global (SDZG), Project Dragonfly, and Hawaiian partners to explore what it takes to save species in the wild. We will focus especially on the inspirational work of SDZG's Institute for Conservation Research, which uses science, education, and community programs to rescue species from the brink of extinction. We expect Earth Expedition's Hawai'i program to immerse graduate students and local partners in developing and testing site-specific methods of community engagement to sustain ecological and social health. Prior to and following the field experience in Hawai'i, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

#### **IES 649 Kenya: Wildlife & People in Integrated Landscapes (7)**

The South Rift Valley of Kenya is one of the most spectacular wildlife areas on the planet. Project Dragonfly has partnered with

the Cincinnati Zoo & Botanical Garden and the African Conservation Centre to advance community-based conservation in this dynamic landscape. This effort builds on the decades-long research of Dr. David Western, former head of the Kenya Wildlife Service, and the centuries-long research of the Maasai pastoralists, who have long co-existed with wildlife in an open grassland ecosystem populated by elephants, lions, giraffes, zebra, wildebeests, and a remarkable diversity of other species. With the rise of nontraditional lifestyles, private ranches, and fenced lands that prevent needed wildlife migrations, communities of the South Rift have recognized the need to understand the impact of these changes and to work together for a better future. Join Kenyan conservationists, educators, community leaders, and youth to study sustainable approaches to human-wildlife coexistence. Prior to and following the field experience in Kenya, students will complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

**IES 651 Mongolia: Steppe Ecology & Civic Media (7)**

Students travel to Mongolia, the "Land of Blue Sky." The birthplace of the Mongol Empire, the largest contiguous empire in human history, Mongolia is now a vibrant democracy and home to an open wilderness that has few parallels in the modern world. We will explore the great steppes, and especially engage in the conservation story of two key steppe species: Pallas' cats and Przewalski's horse. Pallas' cats are important steppe predators whose conservation provides insights into the challenges facing the survival of small wild cats worldwide. Przewalski's horse, also called takhi, are considered to be the only true wild horse left in the world. We will join research on an ambitious reintroduction project based in Mongolia that has returned this remarkable species to its former homeland after being driven to extinction in the wild. Prior to and following the field experience in Mongolia, students will complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

**IES 652 Thailand: Buddhism & Conservation (7)**

Students travel to Thailand to investigate this country's astonishing Old World rain forests and diverse cultural environments. This course will address key topics in ecology while exploring emerging models of conservation and education. Possible research projects include Buddhism and the environment, indigenous ecological knowledge, spiritual connections to nature, and community forests. Discover the power of inquiry to generate knowledge and inspire conservation. All students conduct an investigation of the local ecosystem, asking their own questions, collecting data, and presenting conclusions. Prior to and following the field experience in Thailand, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

**IES 653 India: Species, Deities & Communities (7)**

Students journey to India through the rich ecological, cultural, and spiritual landscapes of the Western Ghats, exploring sacred groves and forest temples where the fate of wildlife, people, and deities meet. The Western Ghats region is well known to conservationists as a biodiversity hotspot, home to diverse local ecosystems with an abundance of plant and animal species found nowhere else. The existence of sacred groves in the Western Ghats predates recorded history. For social scientists, sacred groves are valued as centers for community life. For the spiritually inclined, sacred groves transcend earthly bounds, allowing people to commune with gods and other powerful beings that offer protection, enlightenment, absolution, or guidance. In this course, we seek to better understand the multifaceted relationship between people and nature, and we address specific questions about a sustainable future. Prior to and following the field experience in India, students complete coursework via Dragonfly's Web-Based Learning Community as they apply experiences to their home institutions. Cross-listed with BIO.

**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.*

**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.*

**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/WGS.*

**FSW 225 Family School and Community Connections (3)**

This course focuses on the theory and practice of joining families, communities, and schools to support student learning, development and success in education. Strategies to improve communication and collaboration are emphasized with a focus on family types, cultures, economic conditions, school systems, community services, political forces, advocacy groups, and other factors that impact children and their families.

*Cross-listed with EDT.*

**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 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 a preschool program.

*Prerequisites:* C- or better in EDP 201, EDT 273, EDT 274 and FSW 281. *Co-requisites:* EDT 246, EDT 272. Offered at regional campuses only.

**FSW 295 Research and Evaluation Methods (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. Cross-listed with KNH.

**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 BIO 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 WGS.

**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.

Cross-listed with BWS/SOC.

**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 414 Social Work Senior Practicum II (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 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. Offered infrequently.

*Prerequisite:* 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) MPC**

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/WGS.*

**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. Offered infrequently.

**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 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.

**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. Offered infrequently.

*Prerequisite: 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. Offered infrequently.

*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. Offered infrequently.

*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 Educators 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 497/597 Methods of Social Justice Inquiry (3)**

Historical and critical overview of methods of inquiry used by scholars and activists seeking social justice, with emphasis on Participatory Action Research, Narrative Analysis, Community Psychology, Institutional Ethnography, and Mixed-Methods designs. Examines methodologies of previous and current research as framed by social constructionist epistemology, interdisciplinary conceptual frameworks, cultural values, and politics of advocacy for equity and fairness. Provides mentoring in application of techniques.

*Cross-listed with PSY/SJS/WGS.*

**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 611 Social Welfare Policy I (3)**

Social Welfare Policy I provides an overview of social welfare and social work as a profession. An overview of U.S. Social welfare services are provided in the context of social work values and ethics. This course includes a critical analysis of historical and current interactions of social welfare policies, programs, and services with diverse recipient populations.

*Prerequisite: admission to the MASW Program.*

**FSW 612 Social Welfare Policy II (3)**

Social Welfare Policy II emphasizes issues such as racism, poverty, and community building. Policy analysis and development is taught from the point of view of agency management, community organizers/planners, and policy advocates. Attention is paid to policy development important to racial and ethnic groups and women as well as gay and lesbian persons. The historical development of major U.S. community policy initiatives is addressed as well as contemporary community policy issues at the federal, state and local levels. This course builds upon the policy analysis frameworks developed in Social Welfare Policy I to develop a higher level of critical thinking and competency used to address social welfare policy issues at all levels of the social welfare and social work systems.

*Prerequisite: admission into the MASW program and Social Welfare Policy I.*

**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 615 Cultural Competency (3)**

The purpose of this course is to empower students to develop an appreciation for their own cultural identities and become critically self-reflective in their orientation toward differences in the cultural identities of others as defined by race, ethnicity, gender, class and sexual orientation. Students will acquire the knowledge, skills, and attitudes to increase their effectiveness in relating across cultural differences and in increasingly diverse domestic and international environments.

*Prerequisite: admission into the MASW collaborative program.*

**FSW 616 Graduate Social Work Research I (3)**

This is the first of three research courses required in the Master of Arts in Social Work (MASW) Program. Students will learn basic skills of quantitative and qualitative social research methodology and techniques of gathering, analyzing and interpreting data. Students will evaluate research reports for relevance to practice with at-risk and underserved populations. Students will develop an initial research or evaluation design for social work practice.

**FSW 617 Human Behavior in the Social Environment I (3)**

The course employs a social systems approach as the primary foundation for viewing families, groups, organizations, communities and social institutions. The course will utilize theories about human behavior to develop the foundation needed to learn effective social work practice.

*Prerequisite: admission to the MASW Program.*

**FSW 618 Human Behavior and the Social Environment II (3)**

This course is designed to provide an understanding of human behavior and development throughout the life span within its social context. Specific theories from the biological, psychological, social and cultural theory base are presented throughout the course, concurrent with the presentation of life span development. Human behavior is analyzed in terms of intrapersonal, familial and sociocultural phenomena. The course includes theories and knowledge about the range of social systems in which individuals live, including families, groups, organizations, institutions, and communities. The ecological perspective provides a holistic basis for examining adaptive and maladaptive behavior, family processes and their effects on individual family members, and individual development and behavior in relationship to race, ethnicity, gender, social class, sexual orientation, and other aspects of diversity. The influences of prejudice, discrimination and oppression on individual, family and social functioning are addressed throughout the course. Theories are examined critically for their validity in recognizing human potential for growth and as a foundation for strengths-based social work practice, with an emphasis on empowerment. Attention is also given to ethics and social work values in evaluating theories and their application to practice.

*Prerequisite: admission to the MASW program and Human Behavior and the Social Environment I.*

**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. Offered infrequently.

*Prerequisite: FSW 518 or permission of instructor.*

**FSW 621 Social Work Practice I (3)**

Social work practice I is designed to help students develop an understanding of the knowledge base and values of social work practice; acquire basic skills through the use of role-playing and simulated interviewing process. Specific attention is given to micro levels systems, emphasizing the interactions of micro systems with mezzo and macro level systems.

*Prerequisite: admission to the MASW Program.*

**FSW 622 Social Work Practice II (3)**

This course will focus on the continued application of theories, concepts and principles in direct social work practice. A wide range of treatment modalities are presented including individual, family, and group as well as psycho-social educational approaches. Focus on deepening skills with each of these populations and knowledge about social work practice is presented. A particular focus is on

empowerment, social and economic justice, groups, and communities.

*Prerequisite: Social Work Practice I.*

**FSW 623 Social Work Advanced Practice I (3)**

Advanced social work practice builds on the foundation of social work practice I and social work practice II. Consistent with the field of social work, and the Family Studies and Social Work department, course content seeks to facilitate knowledge and competency in working with diverse children and families especially poor, oppressed, racial and ethnic minorities, gay and lesbian and other at-risk children and family populations. Content includes practice with individuals, children, families, communities and larger systems. Advanced social work practice will utilize an ecological systems framework and a strengths perspective as contexts for the development of basic competencies.

*Prerequisite: admission to the MASW program; FSW 621 and 622.*

**FSW 625 Social Work Ethics (3)**

Ethics provides us with standards and guidelines for how we live our lives and how we conduct ourselves in our work. Ethical standards and guidelines help us evaluate our profession and our colleagues' behaviors. They help us do the "right thing." This course reviews the National Association of Social Work (NASW) code of ethics and gives opportunities to evaluate our personal work performance against these standards. In addition, a comprehensive overview of ethical issues encountered in social work, using extensive case material will be utilized in order to learn about the range of ethical issues, and ethical issues as it relates to diversity and social justice in social work; how to manage complex practice-based ethical dilemmas, prevent ethics related malpractice, and avoid liability. Emphasis on practical strategies designed to protect clients, professionals and human service agencies will also be reviewed.

**FSW 641 Concentration Focus Area Families and Children: Practice (3)**

This is a concentration focus area course related to families and children. This course provides the knowledge, skills, and values needed for advanced generalist social workers to engage, assess, intervene, and evaluate direct practice with children and families. This course will include use of the DSM and other diagnostic tools that apply to children and families. This course will discuss clinical interventions with children and families.

*Prerequisite: admission into the MASW Program.*

**FSW 642 Concentration Focus Area Macro: Families and Children (3)**

This course focuses on U.S. social welfare policy with children and families. Particular attention is paid to social welfare policy analysis, the nature of social welfare system trends, and their impact on children and families. Completion of FSW 611 and FSW 612 is required. In addition, previous undergraduate course work in social welfare policy is strongly suggested, as well as a basic statistics course, taking such a course simultaneously is strongly suggested.

*Prerequisites: FSW 611 and 612 and enrollment in MASW program or permission of instructor.*

**FSW 645 Concentration Focus Area Older Adults: Practice (3)**

This course is designed to provide students with an understanding of advanced generalist practice with older adults. A life course perspective that incorporates cultural, economic, historical and structural contexts that provides the framework for examining aging-related issues, particularly in regards to the impact on the quality of life of older adults. Topics to be explored include cross-cultural issues, health and mental health, social theories of aging, and resilience in older persons of color, among others.

**FSW 646 Older Adults: Macro Practice (3)**

This course provides the knowledge, skills, and values needed for advanced generalist social workers to engage, assess, intervene, and evaluate policy practice with older adults. This course will include policies and programs that specifically target positive outcomes for older adults.

*Prerequisite: admission to the MASW Program or permission of instructor.*

**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, Muslim), 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 661 Field Education I (1-3)**

Field education is the signature pedagogy of social work education. Student in Social Work Field Education I must complete 300 hours of field education experience in the community. Field education provides the opportunity for the student to engage in selected and organized activities, with or on the behalf of clients, that apply the social work skills, knowledge, and values learned in the classroom. In field education, students meet a range of clients, encountering diversity, and growing in their self-awareness and abilities to help clients of various backgrounds and with different problems.

*Prerequisite: admission to MASW Program.*

**FSW 664 SW Field Education Seminar I (1-3)**

The seminar is specifically designed to integrate the Field Education I experience and coursework, and is offered to students admitted to the MASW Program.

**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 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. Offered infrequently.

*Prerequisite: graduate standing.*

**FSW 700A Thesis: Independent Research (1-3; 6 required, maximum 6 toward any one degree)**

*Prerequisite: approval of faculty member.*

**FSW 716 Graduate Social Work Research II (3)**

This second research course concerns the data analysis component of social science research and program evaluation. The course covers the procedures for the rigorous, valid, reliable, and credible collection and analysis of quantitative and qualitative data to arrive at decisions that improve interventions and contribute to knowledge. Students will continue to develop the research design for their culminating research project.

**FSW 717 Graduate Social Work Research III (3)**

In this third research course, students implement a culminating research project following a rigorous qualitative and/or quantitative design to collect and analyze data to inform agency practice and/or policy decisions. Students must successfully complete the culminating research project to graduate.

*Prerequisite: FSW 616 and 716 and admitted to the MASW Program.*

**FSW 724 Advanced Generalist Social Work II: Macro (3)**

Advanced social work practice II teaches advanced generalist social work direct practice skills with communities and organizations. These skills are applied during the following stages of social work intervention: Engagement, Assessment, Intervention, and Evaluation. Content will include community organization, locality development, advocacy, and legislative policy change. Content will also include skills to write grants to support funding of social service organizations.

*Prerequisite: Social Work Practice I, Social Work Practice II and Social Work Advanced Practice I.*

**FSW 762 Social Work Field Education II (1-3)**

Field education is the signature pedagogy of social work education. Students in Social Work Field Education II must complete 300 hours of field education experience in the community. Field education provides the opportunity for the student to engage in selected and organized activities, with or on behalf of clients, that apply the social work skills, knowledge, and values learned in the classroom. In field education, students meet a range of clients, encountering diversity, and growing in their self-awareness and abilities to help clients of various backgrounds and with different problems.

*Prerequisite: Students must be admitted to the MASW Program.*

**FSW 763 Social Work Field Education III (3)**

Field education is the signature pedagogy of social work education. Students in Social Work Field Education III must complete 300 hours of field education experience in the community. Field education provides the opportunity for the student to engage in selected and organized activities, with or on behalf of clients that apply the social work skills, knowledge, and values learned in the classroom. In field

education, students meet a range of clients, encountering diversity, and growing in their self-field awareness and abilities to help clients of various backgrounds and with different problems.

*Prerequisite: admitted to the MASW Program.*

**FSW 765 Social Work Field Education Seminar II (1-3)**

The seminar is specifically designed to integrate the Field Education II experiences and coursework, and is offered concurrently with social work advanced generalist fieldwork and competencies.

**FSW 766 Social Work Field Education Seminar III (1-3)**

The seminar is specifically designed to integrate the Field Education III experiences and coursework, and is offered concurrently with social work advanced generalist fieldwork and competencies.

*Prerequisite: admission to the MASW Program.*

## FILM STUDIES COURSES (FST Arts and Science; Department of Media, Journalism, and Film)

**FST 135 Film as Ethnography (1)**

Explores anthropological approaches to the study of human diversity and variation through the lens of ethnographic and documentary films. Exposes students to basic concepts in anthropology including cultural and linguistic relativity, globalization, and representational practices.

*Cross-listed with ATH.*

**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 MAC.*

**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. IIB, IIBB, CUL.

*Cross-listed with BWS/LAS/MUS/POR.*

**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.*

**FST 206 Diversity and Culture in American Film (3) MPF**

Analysis of the representation of diversity and culture as portrayed in American motion pictures. IIB. Cul.

*Cross-listed with MAC/IDS.*

**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. CAS-B-LIT.

*Cross-listed with ENG.*

**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. CAS-B-LIT.

*Cross-listed with ENG.*

**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. IIB, H, CAS-B.

*Cross-listed with AMS and ITL.*

### **FST 225 Linking Film and New Media (3)**

This course will consider the challenge new media present to cinema's primacy, but also the ways in which cinema survives and thrives in a digital age. While acknowledging what is unique to different new media forms, we will also identify the aspects of new media that are not fully "new" by examining their dependence on styles, structures, narratives, and even actual footage from cinema and other "old" media. Conversely, we will uncover how new media have reshaped cinema through influences such as CGI, video games, and digital editing.

*Prerequisite: CMS 201 or FST 201. Cross-listed with CMS.*

### **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. Offered infrequently.

*Cross-listed with ENG.*

### **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.*

### **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.

*Recommended prerequisite: FST 201. Cross-listed with HST.*

### **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. IIB, CUL, H.

*Cross-listed with FRE/GER.*

### **FST 261 German Film in Global Context (3) MPF, MPT**

Traces the dynamic development of German speaking cinema from 1895 to the present within a global context that defines filmmaking beyond national borderlines. The global context is determined by the international spread and commonality of: 1) technological innovations (camera, lighting, and sound systems, editing techniques); 2) commercial practices (of production, collaboration, distribution, exhibition); 3) political influences (the interplay of film, war, and ideology); and 4) aesthetic trends (the international popularity of certain genres, formal devices, and specific cultural preferences). The course is taught in English and all the films have English subtitles. IIB, IIBB, Cul, H, CAS-B.

*Cross-listed with GER.*

### **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. CAS-B-LIT.

*Cross-listed with ITL.*

### **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. CAS-B-LIT.

*Cross-listed with RUS.*

### **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.*

### **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.*

### **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.*

### **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.*

### **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. CAS-LIT-B.

*Cross-listed with RUS.*

### **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.*

### **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 MAC.*

### **FST 301 Film Theory (3)**

Introduction to the basic concepts of classical and contemporary film theory, such as realism, formalism, structuralism, post-structuralism, psychoanalysis, cognitive theories, among others. Mandatory weekly screenings.

*Prerequisite: FST 201.*

### **FST 345 Global Media, Ethnography, and Film (3)**

Explores anthropological and ethnographic frameworks to the study of global media flows across boundaries, borders, and time. Examines the ways in which mediated performances, texts, and images are instrumental in building and negotiating communities, cultures, and identities.

*Cross-listed with ATH.*

### **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.*

### **FST 361 Antiquity Through a Lens (3)**

Introduces students to filmic projections of classical myths and historical crises. Heightens students' awareness of the ways films construct our images of classical antiquity in the service of contemporary ideological agendas.

*Cross-listed with CLS.*

### **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. CAS-B-LIT.  
Cross-listed with FRE.

**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 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/POR/WGS.

**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 BWS/LAS.

**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.  
Prerequisite: FST 201 or FRE/FST 366. Cross-listed with FRE.

## 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): ISA 205 and FIN 301. Concurrent registration with FIN 401.

**FIN 303 Financial Principles and Introduction to Modeling with Excel (3)**

This course provides a hands-on experience in obtaining financial data; using Excel to manipulate data for financial applications such as problem solving and financial modeling. Emphasis will be on building financial models and using data to evaluate common financial problems encountered.

**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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.

**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 estate 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: ISA 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 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 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 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.

Prerequisite: FIN 302.

**FIN 462 Advanced Corporate Finance (3)**

This course covers advanced topics in corporate finance and governance, including corporate monitoring, board structure, executive compensation, regulation and governance, capital structure, and payout policy.

Prerequisite: FIN 302.

**FIN 463 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.

*Prerequisite:* FIN 301 or permission of instructor. Cross-listed with MGT.

**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 Farmer 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:* 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:* FIN 625.

**FIN 655 Analysis of Business Finance and Investments (3)**

Further 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:* FIN 625.

course in the sequence leading to FRE 202. No student may take FRE 101, 102 or 201 Credit/No Credit.

**FRE 101/102 Elementary French (4, 4)**

Emphasis on multiple skill acquisition, speaking, and writing, and how cultural difference affects experience of the world.

*Prerequisite for FRE 102:* successful completion of FRE 101 or, if the student is beginning the language sequence at the University, appropriate placement test score as determined by the Department of French and Italian.

**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. CAS-B.

**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.

*Prerequisite for FRE 201:* successful completion of FRE 102 or, if the student is beginning the language sequence at the University, appropriate placement test score as determined by the Department of French and Italian.

**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.

*Prerequisite for FRE 202:* successful completion of FRE 201 or, if the student is beginning the language sequence at the University, appropriate placement test score as determined by the Department of French and Italian.

**FRE 212 Secular Jewish Culture From the Enlightenment to Zionism (3) MPF**

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. IIB, CUL, IIB, H. CAS-B.

*Cross-listed with GER/RUS 212 and HST 211.*

**FRE 255 Visual Representations of the Holocaust (3) MPF**

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. IIB, CUL, H.

*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.

## 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

*Cross-listed with GER/FST.*

**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. CAS-B-LIT.

*Prerequisite:* FRE 202.

**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 the rowdy streets of Medieval Paris to the court of Versailles, from troubador love songs to the first modern novels, this 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. CAS-B-LIT.

*Prerequisite:* FRE 301.

**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. CAS-B-LIT.

*Prerequisite:* FRE 301.

**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 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.*

**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. CAS-B-LIT.

*Cross-listed with FST.*

*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.

**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 414/514 Art and Architecture in Dijon and Burgundy, France (1-6; maximum 6)**

Study the rich history and current state of art and architecture of Dijon and the Burgundy region within their contexts while on site in France. May include, for example, the study of cinema, comics, dance, music, painting, photography and sculpture. Includes field trips. May be repeated for credit. Topics vary.

*Prerequisite:* FRE 202 or equivalent with permission of the instructor.

**FRE 415 Advanced Composition (3)**

Provides instruction in advanced French composition.

**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 420/520 Topics in Bande dessinée, Cartoons and Caricature (1-3; maximum 6)**

Exploration of the history of French-language comics and related media, and analysis of form. Topics vary. Taught in French.

**FRE 423/523 Theatre, Performance, Spectacle (3)**

Reading theater is, by definition, an incomplete act, for what makes a play theatrical is not the written script, but its performance to a group of spectators. This course considers the notion of "performativity" through an exploration of different modes and genres of theater and performance in French language traditions. May include: plays from the middle ages to the 21st century; examples of performance art, music, dance, or opera; theories of theatre, performance, and spectacle from Aristotle to Artaud and Butler.

**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. CAS-B-LIT.

*Prerequisite:* FRE 301.

**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. Offered infrequently. CAS-B-LIT.

*Prerequisite:* junior or senior standing or permission of instructor. In English.

**FRE 442/542 Literary Innovation, 16th-18th C (3)**

Coincident with the evolving market and technology of printed books came an explosion of literary invention. Specific topics depend on the choice of the professor and may include early modern developments in poetry, the invention of French classical drama, prose from Montaigne's *Essais* to the experimental short forms of the 17th century, or novels and philosophical contes of the Enlightenment. CAS-B-LIT.

**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 451/551 Rebellions, Revolutions, and Avant-gardes (3)**

Analyzes the concept of revolution by examining one or more moments of upheaval and renewal, including political events such as the revolutions of 1789 and the nineteenth century, aesthetic avant-gardes such as romanticism or surrealism, scientific movements such as seventeenth-century optics or the rise of medicine, or technological discoveries such as the invention of the printing press and its implications for society. Taught in French. CAS-B-LIT.

**FRE 452/552 The 19th Century (3) MPT**

Nineteenth-century France was wracked by multiple revolutions and changes of government, but it also transformed many of the bases of social life and led to a flowering in many of the arts. The century began with the vast Napoleonic expansion across Europe and ended with searching introspections about the notions of decadence and decay. In literature, it gave rise to what are arguably the greatest achievements in French lyric poetry and the novel. It created modern medicine both as a practice and a social force. It invented large-scale speculative capitalism and the modern city. This course will focus on exemplary aspects of nineteenth-century cultural production in France and may include literary, aesthetic, political, scientific, and philosophical trends.

**FRE 453/553 Poetry (3)**

Exploration of French poetry and poetics. The course examines techniques and formal aspects of poetry, prosody and rhetoric, by focusing on certain authors and historical movements. It also analyzes the notion of the poetic as a way of envisioning and making sense of the world. CAS-B-LIT.

**FRE 454/554 The Origins of the 20th Century (3)**

In the first years of the 20th century, Paris became a focal point and meeting place for various avant-garde artistic movements such as dada, cubism, and surrealism, many of which were born under the shadow of the First World War. With the rise of modernist urbanism, the city itself became a testing ground for ideas and ideologies that attempted to reenvision human nature. By the thirties, these totalizing visions of a human future largely divided between communism and fascism, and Paris, as a capital of ideas and immigration, became the battleground for competing, militant images of humanity. At the same time, the capital gazed out past the borders of France itself over an extensive colonial empire that returned vast riches at the cost of terrible moral and humanitarian injustices. This course will examine literary and other cultural works from this turbulent period to better understand the scope, meaning, and stakes of the French twentieth century. CAS-B-LIT.

**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.

*Prerequisite:* FST 201 or FRE/FST 366. 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. Offered infrequently. CAS-B-LIT.

**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 include:

- 600A Gender, Genre, Novel
- 600B The Language of Literature
- 600Z Postcolonial/Queer Theory

**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 students' 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 122 Geographic Perspectives on the Environment (3)**

An introduction to physical geography that enables class participants to understand and interpret the environmental conditions of any geographic locality on earth. Special emphasis is placed on understanding relationships between geographic patterns and processes in the atmosphere (weather and climate), biosphere (vegetation and soils), and lithosphere (landforms). With knowledge of global physical environments, it is possible to predict the suitability an area may have for human habitation, and also the influences certain human activities may have on the physical environment. IVB. CAS-D.

#### **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.

#### **GEO 159 Creating Global Peace (3) MPF**

Focuses on the study of peace, as represented across disciplinary boundaries and at local-to-global scales of analyses. Combines guest lectures, scholarly readings and other media, reflective writing and discussion, and a service-learning commitment that together explore different ways of thinking about peace, and 'peace' practices at global to local scales. IIC, IIIB, Cul.  
*Cross-listed with SJS.*

### **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 205 Population and Migration (3)**

Examines the spatial distribution and dynamics of human fertility, mortality, and migration, primarily in the contemporary period, as well as the interaction of these trends with environmental, economic, and political issues. Special attention is given to interpreting and evaluating quantitative measures of population geography. CAS-QL.

#### **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. IIC, Cul, H. Offered infrequently.

#### **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). IIC, Cul, H.  
*Cross-listed with ITS/SOC.*

#### **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. IIC, Cul, H. Offered infrequently.  
*Cross-listed with BWS/REL.*

#### **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. Offered infrequently.

#### **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 242 Mapping a Changing World (3)**

Technology and language of maps, including aerial and satellite imagery, and impact of these technologies on society. Tools for making maps that faithfully and effectively represent geographic data. CAS-QL.

#### **GEO 271 Human Dimensions of Natural Resource Conservation (3)**

**MPT**

Ecological, socioeconomic, and policy perspectives on the use and management of natural resources.

#### **GEO 276 Geography of the Global Economy (3)**

Focuses on the changing geography of the global economy, including production, distribution and consumption of goods and services. Covers the eras of mercantile capitalism, colonialism, industrial capitalism and today's globalization.  
*Recommended prerequisite: GEO 101.*

#### **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.*

#### **GEO 302 Geography and Gender (3)**

This class adopts a geographic approach to the study of gender relations. The role of space and place in shaping the diversity of gender relations throughout the world will be considered. Through case studies the importance of gender relations in understanding a variety of issues will be stressed. Overall, we will explore how geography shapes gender relations and how gender produces a variety of geographies.  
*Cross-listed with WGS.*

#### **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. Offered infrequently.

#### **GEO 307 Geography of Central and Eastern Europe, and Russia (3) MPT**

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 WGS.*

#### **GEO 311 Geography of Europe (3)**

Regional analysis of Europe with emphasis on cultural, political, and economic patterns and problems.

#### **GEO 333 Global Perspectives on Natural Disasters (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.

#### **GEO 340 Internship (0-20)**

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 landforms to assess the relative role of climate, tectonics, and humans in their formation.  
*Prerequisite(s): GLG 111, GLG 121 or GEO 121. Cross-listed with GLG.*

**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 385 Media Geographies (3)**

Explores contemporary media infrastructures, representations, virtual and augmented realities, and communicative practices that describe our world and create spaces of social action.

*Cross-listed with CMS.*

**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) MPT**

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. Offered infrequently.

**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 WGS.*

**GEO 408/508 Geography of the Silk Road (The Heart of Asia) (3) MPT**

Examines the geography of the Inner Asia region including Uzbekistan, Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, Afghanistan, Pakistan, Mongolia, and Inner Asian China (Xinjiang).

**GEO 409 Sustainability: European challenges and strategies (3)**

Examines social and environmental dimensions of sustainability challenges, and explore strategies for sustainability in European lifestyles, infrastructure, transport, business and policy, with a comparative look at the U.S. Anthropological and geographic method and theory ground a holistic perspective on human-environment relations, which students apply in their exploration of relevant issues in architecture and planning, business, engineering, social work, and natural and social sciences. Special attention is given to competing visions and priorities about what should be sustained, and for whom, and to resulting tensions and conflicts.

*Cross-listed with ATH/ENV.*

**GEO 410/510 Advanced Regional Geography (1-4; maximum 12)**

Specific area to be announced each time course is offered. Offered infrequently.

**GEO 410D/510D Havighurst Colloquium (3)**

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 3 hours counting towards the history major.

*Cross-listed with ATH 436/536, HST 436/536, POL 440/540, REL 470A/570A and RUS 436/536.*

**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.*

**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.

*Prerequisite: a college course in biology, environment concepts, or related topics. Cross-listed with IES/LAS.*

**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.

**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.

**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.

**GEO 428/528 Soil Geography (4) MPT**

Study of soil morphology, formation, classification, and geographical distribution of soils. Fieldwork and laboratory work required. 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. CAS-D.

*Cross-listed with BIO.*

**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.

*Cross-listed with BIO.*

**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.

*Cross-listed with WGS.*

**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 443/543 Python Programming for ArcGIS (3)**

Introduces the basic concepts of computer programming languages, using the Python language as an example. Emphasis on use of Python scripts specifically within the ArcGIS software packages.  
*Prerequisite:* GEO 441/541. *Taught on-line; available to students on any Miami campus.*

**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 445 Geographic Information Systems for Crime Analysis and Mapping (3)**

Geographic Information Systems for Crime Analysis and Mapping – Collect, organize, analyze and display spatial data used in criminal justice and emergency management. Part of the course will be a GIS Crime Analysis Product. Taught on Regional Campuses.  
*Cross-listed with CJS.*

**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.

**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.

**GEO 458/558 Cities of Difference (3)**

Feminist geographic perspectives on urban theory and on the construction, use, and transformation of urban space.

**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, statutes, 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) MPT**

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 advisor, not necessarily from the geography department, with appropriate expertise. Required for geography majors. Offered Fall semester only.

*Prerequisite:* senior standing.

**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 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 BIO.*

**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 readings in Geography. Emphasis is on contemporary 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 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 & ENVIRONMENTAL EARTH SCIENCE 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. CAS-QL.

**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. IVB, LAB. CAS-D/LAB. *Prerequisite or co-requisite: Any 100-level, 3 credit hour GLG course (students enrolled in these courses are not required to take the 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. CAS-QL.

**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. CAS-QL.

## Advanced Geology Courses

**GLG 201 Mineralogy (4)**

Composition, physical properties, symmetry, crystal structure, and geologic occurrence of rock-forming minerals. 3 Lec. 1 Lab. *Prerequisite: GLG 111 or 121 or 141 and 115; and co-requisite: CHM 137 or 141 and 144.*

**GLG 204 Survival on an Evolving Planet (4)**

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: any 100-Level BIO or GLG 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.*

**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) MPT**

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 301 Sedimentology and Stratigraphy (4) MPT**

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 or co-requisite: any 100-level, 3 credit hour GLG course and GLG 115L or permission of instructor.*

**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 or GEO 121.*

**GLG 311 Geoenvironmental Field Methods (3)**

Develops environmental geoscience field skills useful for fundamental and applied investigations. Students learn to test field hypotheses and construct professional reports and will develop a portfolio of project work.

*Prerequisites: GLG 111 or 121 or 141 and 115L.*

**GLG 322 Structural Geology (4) MPT**

Origins and characteristics of primary and secondary structures of Earth's crust. 3 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite: any 100-level, 3 credit hour GLG course; GLG 201 and GLG 301. Recommended prerequisites: MTH 151, 153, or 157.*

**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 landforms to assess the relative role of climate, tectonics, and humans in their formation.

*Prerequisite(s): GLG 111, GLG 121 or GEO 121. Cross-listed with GEO.*

**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 (3)**

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. 3 Lec. 1 Lab.

*Prerequisite:* any 100-level, 3 credit hour GLG course, or permission of instructor.

**GLG 411A/511A 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. Summer only.

*Prerequisite:* GLG 211, 301, 322, and 357 or equivalents or permission of instructor.

**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.

**GLG 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 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 IES 415/515 and LAS 417/517.

**GLG 417/517 Forensic Isotope Geochemistry (3)**

Application of stable and radiogenic isotope systems to contemporary forensic problems including environmental contamination, climate change and wildlife forensics, archaeological forensics, animal migration patterns, soil provenancing, human provenancing, food authenticity and traceability, and criminal investigations including drug use and trafficking, weapons tracing, and counterfeit detection. Analytical methods, data quality, and isotopic mapping and modeling will be discussed as a basis for quantitative and qualitative forensic diagnostics.

*Prerequisites:* GLG 201, GLG 211 or GLG/CHM 275; or permission of instructor.

**GLG 427/527 Isotope Geochemistry (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.

**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 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)**

Reviews stable isotopic techniques to reconstruct climate change over geologic time scales from various types of records, including ocean sediment cores, ice cores, lakes, soils, and speleothems.

*Recommended prerequisite:* GLG 335.

**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 stratigraphy; paleocurrents and sediment provenance; and tectonics of sedimentary basins.

*Prerequisite:* GLG 301. *Co-requisite:* GLG 322.

**GLG 461/561 Geophysics (3) MPT**

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) MPT**

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 173 or PHY 183; PHY 183; PHY 172 or PHY 182; PHY 174 or PHY 184 or consent of instructor. Cross-listed with PHY.

**GLG 474/574 Paleobotany, Paleoecology, Paleoclimatology (3)**

Examination of the ecology and evolution of land plants throughout Earth history and in the context the past climate change.

*Prerequisite:* GLG 204.

**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 aquifer 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. 2 Lec 1 Lab. Offered infrequently.

*Prerequisite:* GLG 201 or permission of instructor.

**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) MPT**

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 BIO 121 or 131 or GLG 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.*

**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.

*Prerequisite: GLG 211 or permission of instructor.*

**GLG 497 Trends and Topics in the Geosciences (3) MPC**

A common capstone experience where students apply their diverse backgrounds to assessing, evaluating, and interpreting cutting edge geoscience data and research in three theme areas: Earth, environment, and society; Earth's climate and life through time; Earth's physical and chemical systems. Students will further develop skills in written and oral communication, with particular emphasis on writing in multiple geoscience genres.

*Prerequisites: GLG 204 or 211; GLG 301 or 357 or 408.*

**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.

*Prerequisite: GLG 527 or permission of instructor. Offered infrequently.*

**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. 3 Lec. 1 Lab. Offered infrequently.

*Prerequisite: CHM 141, 142, 144, 145, and GLG 201.*

**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. Offered infrequently.

*Prerequisite: GLG 643 or permission of instructor.*

**GLG 662 Subduction Zones (3)**

Multidisciplinary examination of the subduction zone system focusing on current research of physical processes. Offered infrequently.

*Prerequisite: GLG 461/561 or permission of instructor.*

**GLG 666 Theoretical Seismology (3)**

Investigation of earthquake sources and seismic wave propagation including derivation from first principles in physics and mathematics in addition to the development of hypotheses for predicting seismic c and elastic behavior from a theoretical framework.

**GLG 670 Geochemical Modeling (1-3; maximum 6)**

Development and application of geochemical modeling tools to aid in interpretation of petrologic, major element, trace element, and isotopic data in geologic and environmental materials, for applications in a wide range of geoscience disciplines including areas such as igneous petrology, mineralogy, aqueous geochemistry, climate change and environmental forensics. Students will explore the fundamentals behind existing modeling programs and develop new modeling programs geared to specific student research interests. Prerequisite: permission of instructor.

**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. 3 Lec. 1 Lab.

*Prerequisite: at least 12 semester hours in college chemistry, physics, or biology.*

**GLG 700 Research for Masters Thesis (1-12; minimum 6, maximum 12)**

**GLG 710 Geology Seminar (1-3; maximum 12)**

Open to students who have completed a year of graduate study.

**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. Offered infrequently.

*Prerequisite: GLG 484/584, 643, or equivalent work in another graduate program.*

**GLG 730 Advanced Igneous Petrology (1-3, maximum 3)**

Experimental igneous petrology, and complex magma systems. Offered infrequently.

*Prerequisite: permission of instructor.*

**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. Offered infrequently.

*Prerequisite: permission of instructor.*

**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, Asian, and Middle Eastern Languages and Cultures)

**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 or placement test.*

**GER 103L Practical German Language (3)**

The goal of GER 103L is to expose students to and to develop basic language skills in German in order to enable them to conduct simple exchanges in a German language environment. This course is aimed at MUDEC students who do not intend to continue German in their university studies while having to fulfil the language requirement of MUDEC.

**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. Offered infrequently.

**GER 111 Review of Basic German (3)**

Covers same material as GER 101 and GER 102; for students with prior study of German. Upon completion of GER 111, students enroll in GER 201.

**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. IIB, Cul, H. CAS-B-Others.

**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 111; 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. CAS-A. *Prerequisite:* GER 201 or placement test.

**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. IIB, CUL, IIIB, H. CAS-B-Other Humanities. *Cross-listed with FRE/RUS 212 and HST 211.*

**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 232 The Holocaust in German Literature, History, and Film (3) MPF**

Critical reading, reflection, and discussion of Holocaust representations. Introduction to historical and political context and survey of debates surrounding memory culture. Examination of fiction, autobiographical writing, historical texts, and film with a focus on German-language sources. Taught in translation. IIB, IIIB, C, 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 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) MPF**

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. IIB, CUL, H. *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 Film in Global Context (3) MPF, MPT**

Traces the dynamic development of German speaking cinema from 1895 to the present within a global context that defines filmmaking beyond national borderlines. The global context is determined by the international spread and commonality of: 1) technological innovations (camera, lighting, and sound systems, editing techniques); 2) commercial practices (of production, collaboration, distribution, exhibition); 3) political influences (the interplay of film, war, and ideology); and 4) aesthetic trends (the international popularity of certain genres, formal devices, and specific cultural preferences). The course is taught in English and all the films have English subtitles. IIB, IIIB, Cul, H. CAS-B. *Cross-listed with FST.*

**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. *Prerequisite:* to courses taught in German on the 300-level is GER 202 or equivalent. *Cross-listed with FRE/FST.*

**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. V. CAS-E. *Cross-listed with ATH 309, ENG and SPN 303.*

**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 English. 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 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.*

**GER 386 Art of the Weimar Republic (3)**

This class will trace developments in painting, photography, film, and architecture in Germany from 1918-1933. We will focus on connections between art and the historical and political events of this

particularly turbulent time in Germany history. Artists to be studied include: Walter Gropius, Mies van der Rohe, Fritz Lang, Hannah Höch, Georg Grosz, August Sander, and Laszlo Moholy-Nagy. Relevant artistic movements include: Expressionism, Dada, the Bauhaus, and New Objectivity.  
*Cross-listed with ART.*

**GER 410/510 Seminar in German Language and Literature (1-4)**

Investigation of topic or problem established by instructor. May be repeated with different suffix (A, etc.). CAS-B-LIT.

**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 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 three semester hours and a maximum total of six semester hours in senior year.

*Prerequisite: 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. Offered infrequently.

*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) MPE, 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) MPE, MPT**

Integrates bio-demographic and socio-cultural approaches to the study of global aging by drawing on cross-cultural quantitative and qualitative data including ethnographic records. Developed and developing countries are compared and contrasted in terms of a wide range of issues related to aging, from global to local. The phenomenon of global aging is explored and addressed through active engagement with international organizations and individuals. IIB, CUL.

**GTy 265 Critical Inquiry: Penny Lecture Series (2)**

Weekly lectures given by different Black World Studies Affiliates. Credit/No Credit.

*Cross-listed with BWS/SJS/SOC.*

**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 or SOC 151 or SOC 153 or SOC/SJS 165 or SOC/DST/EDP 272. Cross-listed with SOC.*

**GTy 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.

*Prerequisite: GTy 154. Cross-listed with DST.*

**GTy 356 Biopsychosocial Aspects of Health and Aging (3) MPT**

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) MPT**

Sociological study of illness, patients, medical professionals, and problems inherent in the delivery of health care services.

*Prerequisite: SOC 151, SOC 153, or GTy 154. Cross-listed with SOC.*

**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: 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 Niiika. Credit/no-credit only.

*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(s): 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.

*Prerequisite(s): (463) GTy 154; (563) GTy 602 or permission of instructor. Cross-listed with SOC/WGS.*

**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.

*Prerequisite(s): (466) GTy 154; (566) GTy 602 or permission of instructor. 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.*

**GTy 478/578 Racial/Ethnic Disparities in Chronic Illness (4) MPT**

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.

*Prerequisites:* (478) GTY 154 or SOC 151, and STA 261, SOC 262; (578) 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 and MPSP 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 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:* admission into the MGS or MPSP program or permission of the instructor.

**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)**

Research on selected topics or problems in gerontology.

**GTY 641 Organizations and the Aging Enterprise (3)**

Prepares 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 667 Policy and Politics of Aging (3)**

Focuses on major policy areas including income security, health care, long-term care, housing, and social services.

**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:* GTY 602 or permission of instructor.

**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:* GTY 602 or permission of instructor.

**GTY 700 Critical Inquiry In Gerontology (1-6)**

Guided independent research required as a culminating, integrative experience for MGS/MPSP 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 (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:* 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; maximum 6)**

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:* 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 those techniques needed for working with longitudinal data and those that address issues of age, period, and cohort effects. Some sections have data analysis laboratory requirements.

*Prerequisite:* 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.*

## GLOBAL HEALTH STUDIES COURSES (GHS Arts and Science)

**GHS 101 Introduction to Global Health (3)**

Introduces students to the complexity and ethical dilemmas of global health as a practical field that seeks to work with organizations and local communities to solve health problems. Students will learn to assess knowledge from multiple disciplines to thoroughly describe global health problems. This course is the required gateway to the Global Health Minor.

**GHS 201 Data and Decisions in Global Health (3)**

Develops understanding and skill interpreting different kinds of data (qualitative and quantitative) to understand, assess, and make ethical decisions regarding complex global health problems and the programs designed to address them. Required for the Global Health Minor.

*Prerequisite: GHS 101.*

**GHS 301 Seminar in Global Health (1)**

Explores a variety of current issues and research in global health through in depth discussions and readings. Specific content will vary each semester according to current global health events and the specific perspectives of the professor. For Global Health Minors, this seminar must be repeated at least three times, and over multiple semesters students will be exposed to multiple disciplinary approaches to analyzing global health concerns. Required for the Global Health Minor.

*Prerequisite: GHS 101.*

**GHS 401 Global Health Immersion Experience (2)**

A self-paced global health component conducted in conjunction with approved off-campus study experiences. Enables students to gain a richer understanding of a global health organization or concern in context, gathering formative information, and presenting it in a professional forum. Requirement of Global Health Minors in combination with their off-campus study experience and must be approved by GH advisor.

*Prerequisite: GHS 101 and either GHS 201 or FSW/KNH 295.*

**GHS 491 Global Health Leadership (1)**

Work in global health requires recognizing and integrating the skills and strengths of differently positioned people while collaboratively building a common vision. This practicum will encourage GHS minors to reflect on qualities of leadership and develop skills in negotiating team problem solving, facilitating the creativity and contribution of each team member, and coordinating contacts or networks of consultants to produce a viable grant proposal.

*Prerequisites: GHS 101, 201, 301 and 401. Concurrent course: ATH 448.*

## GRADUATE SCHOOL COMMUNITY COURSES (GSC Center for the Enhancement of Learning Teaching and University Assessment CELTUA)

**GSC 601 College Teaching Enhancement Program (1; maximum 2)**

Orients graduate students and postdoctoral fellows 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 either the CELTUA Graduate Student Teaching Enhancement Program or the CELTUA PostDoc 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.

**GSC 640 Internship in College Teaching (3; maximum 6)**

The purpose of the course is to provide supervised discipline-specific experience in college teaching. In consultation with the Certificate in College Teaching Committee and an On-site Mentor, students must develop a Learning Agreement that includes a detailed list of discipline specific learning outcomes, a clear plan for assessing the achievement of learning outcomes, and a self-evaluative product to demonstrate reflection on the mentored teaching experience. The plan must include a detailed description of a) what the student will be doing for the experience, b) what the student will be doing to academically enhance the experience by working with the mentor/instructor, and c) how the student will be evaluated by the mentor/instructor. Only students who have been admitted to the Certificate may enroll for this course.

**GSC 700 Thesis and Dissertation Completion for Graduate Students (0)**

Allows students to enroll for one semester with zero credits to complete and defend their theses or dissertation. Primarily for International Students on F1 visas. Permission of Department and Graduate School Required.

## 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. CAS-B-LIT.

*Prerequisite: GRK 101, 102.*

**GRK 202 Plato (3)**

Introduction to Greek prose based on reading selections from Plato. Emphasis on reading comprehension and critical assessment of text. CAS-B-LIT or CAS-A (not both).

*Prerequisite: GRK 201.*

**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. CAS-B-LIT.

*Prerequisite: GRK 202.*

**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. CAS-B-LIT.

*Prerequisite: GRK 202.*

**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. CAS-B-LIT. Offered infrequently.

*Prerequisite: GRK 202.*

**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. CAS-B-LIT.

*Prerequisite: GRK 202.*

**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, Asian, and Middle Eastern Languages and Cultures)

**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. CAS-A.

*Prerequisite: HBW 201 or equivalent.*

**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; Department of German, Russian, Asian, and Middle Eastern Languages and Cultures)

**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: HIN 101 or permission of instructor.*

**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. CAS-A.

*Prerequisite: HIN 201 or permission of instructor.*

## 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, IIBB, 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, IIBB, Cul, H.

**HST 202 History and Numbers (3)**

The course aims to teach basic quantitative skills through the lens of history. Students will learn how use numerical data to answer historical questions. Students will also study how societies have employed numbers in the past and understand that arithmetic has been valued as a fundamental skill throughout history. CAS-QL

**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 211 Secular Jewish Culture From the Enlightenment to Zionism (3) MPT**

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. IIB, IIBB, CUL, H. CAS-B.

*Cross-listed with FRE/GER/RUS 212.*

**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.*

**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.*



**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.*

**HST 222 U.S. Foreign Relations Since 1898 (3) MPT**

Survey of U.S. foreign policy from 1898 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 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. IIB, Cul, H.

*Cross-listed with BWS.*

**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. IIB, Cul, H.

*Cross-listed with BWS.*

**HST 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 REL.*

**HST 236 Medicine and Disease in Modern Society (3)**

Explores the history of medicine and disease in Europe and America from the late eighteenth century to the present. The focus is on the rise of scientific medicine emphasizing the methods of social, intellectual, and cultural history. This approach rejects traditional progressionist accounts of the rise of scientific medicine and seeks to place medicine in a wider context. The predominant theme is that of the increasing influence of medical theory and medical institutions on society, and the growing concern of the state with public health. The course includes an exploration of the connections between medicine and ideas about class, race, gender, nation, and disease. This course requires no previous knowledge of modern history.

**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 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)**

Development of European slaving activity in the African continent in the 15th through 19th centuries. Emphasis on the activities of Portuguese, Spanish, English, French and Dutch slavers, including the Middle Passage and also the less-studied slave trade in the

Mediterranean and Indian Ocean. Identifies the economic forces, as well as the social consequences, of the ongoing slave trade.

*Cross-listed with BWS/LAS.*

**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. IIB, IIIB, Cul, H. CAS-B.

**HST 246 Survey of Medieval History (3) MPT**

Formation of European Synthesis: from the crusades to 15th century.

**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 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.

*Recommended prerequisite: FST 201. Cross-listed with FST.*

**HST 253 Work, Wealth, and Power: U.S. Business and Labor History (3)**

Examines U.S. business and labor history in order to understand Americans' changing perceptions of wealth, work and power from the 1790s to the present. Topics include the major economic transformations in American history; principles of scientific management; formation of class identity; productivity and the meaning of work; the structure of American capitalism and conceptions of the American Dream. Students will examine the ways in which U.S. business and labor practices have changed over time; the role capital and labor have played in shaping the nation's economic agenda and the political power wielded by manufacturing alliances and labor organizations.

*Cross-listed with AMS.*

**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. IIB, IIIB, Cul, H.

*Cross-listed with ATH/CLS/ITS/POL/REL/RUS.*

**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.*

**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. IIB, IIIA, IIIB, Cul, H.

*Cross-listed with LAS.*

**HST 270 Topics in European History (1-4; 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. Luxembourg Campus only.

**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 290 Topics in American History (1-4; maximum 12)**

May be repeated when topic changes.

**HST 296 World History Since 1945 (3) MPF**

From Hiroshima to the Information Age. Focuses on the politics of identity and social history. IIB, IIIB, 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. Offered infrequently.



*Prerequisite: none, but HST 122 recommended.*

### **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.*

### **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.*

### **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.*

### **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 diverse expressions of political and social change with emphasis on Cuba, Mexico, Nicaragua, and Brazil.

*Cross-listed with LAS.*

### **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, 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. Offered infrequently.

*Cross-listed with BWS 324.*

### **HST 326 After Alexander: The Hellenistic Age (334-31 BCE) (3)**

Society, politics and culture of the Hellenistic World from the campaigns of Alexander the Great to the rise of the Roman Empire.

### **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 336 Medicine and Disease in Pre-Industrial Society (3)**

Examines the influence of ancient medical traditions on medieval and early modern medicine, the formation of academic medicine in the Middle Ages, and the development of anatomy and ideas about the body. The predominant theme is the gradual emergence of "modern" medical institutions and structures including the professionalization of medical practice, the rise of hospitals and the nursing profession, and the concern of the state with public health. The influence of medicine on social structures and attitudes will also be explored, especially ideas about class, race, women and disease. This course requires no previous knowledge of medieval or early modern history.

### **HST 337 The United States and the Middle East (3)**

Examines the history of US foreign relations with nations in the Middle East from 1776 to the present.

### **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 Internship (0-20)**

*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.*

**HST 342 Africa Since 1945 (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.*

**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 347 Baghdad and the Abbasid Caliphate (750-1000 C.E.) (3)**

Consider the politics, religious history and social fabric of Baghdad, the capital of the Arab/Islamic Empire under the Abbasid caliphate, over the first 250 years of its history. Treats urbanism and urban society as a central feature of medieval Islamic and Near Eastern history over the same period.

**HST 348 Witch Craze 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 350 Topics in American History (3-4: maximum 9)**

May be repeated when topic changes.

**HST 352 Medicine and Society in 20th Century Africa (3)**

Explores the place of medicine in the political, economic, and social history of Africa as well as African responses to changing patterns of disease, health and health care during the 20th century.

*Cross-listed with BWS.*

**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 355 History of Modern Sport and National Identity (3)**

Examines the relationship between sports and national, regional, and local identities; sporting and relations between states; the process by which the world adopted or rejected Western games; and the impact of globalization on national sporting cultures, in the last two centuries. Topics include the history of Olympic Games, soccer's World Cup and the global proliferation of baseball and basketball.

**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 357 Gilded Age America (3)**

Covering the period between 1877 and about 1920, this course explores the political, economic, social, and cultural history of the era in the United States known as the Gilded Age, as well as Progressive Era responses to issues raised in that era. Pedagogy includes both lecture and hands-on experiential work with primary and secondary sources.

*Cross-listed with AMS.*

**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.*

**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.*

**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.*

**HST 366 American Empire (3)**

A history of the causes, functioning, and impact of American imperialism, as 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.*

**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.

*Cross-listed with AMS.*

**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.*

**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. Offered infrequently.

*Cross-listed with WGS.*

**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/WGS.*

**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 385 Race, Science, and Disease in the Americas (3)**

Surveys a variety of debates over race and disease since the European overseas expansion to the Americas, particularly in those regions that developed plantation-based agriculture. Begins with the medical and scientific construction of ideas about race from the conquest to the eighteenth century. Places the development of racial theories of sickness and health in a broad social and political context, and, in particular, explains the medical salience of race in the settings of slavery and colonialism. Discussions will focus primarily on Latin America, the Caribbean, and the United States, but will also explore the making of knowledge about race in global setting.

*Cross-listed with BWS/LAS.*

**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.*

**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 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/WGS.*

**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/WST.*

**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 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 (3)**

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 3 hours counting towards the history major.

*Cross-listed with ATH 436/536, GEO 410D/510D, POL 440/540 and REL 470A/570A, RUS 436/536.*

**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.*

**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 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 WGS.*

**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 459 Historicizing the News (3)**

Focuses on ways to use history to deepen and contextualize understanding of contemporary events and trends. Emphasis on skills development in information literacy, conducting targeted research, and using writing to meet the needs of various audiences.

**HST 470/570 Topics in Russian History (3-4) MPT****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 480 Departmental Honors (1-6; maximum 6)**

Departmental honors may be taken in one or more semesters of the student's senior year.

**HST 482/582 Russian, Eastern European and Eurasian Summer Workshop (6 undergraduate; maximum 12)**

A three-week study tour (taught in English) will be an intensive study of the history, politics, and culture of this area. The location of the trip may vary from year to year. Students examine the intersection of religion, literature, film, visual arts, history, politics and/or architecture. The tour will visit major historical and cultural sites and hear lectures from local specialists.

*Recommended prerequisites: REL/RUS 133 or ATH/HST/POL/REL/RUS 254. Cross-listed with ATH/POL/REL/RUS.*

**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. Offered infrequently.

*Cross-listed with BWS.*

**HST 601 Historical Methods (3)**

Introduction for beginning graduate students to the practice of history.

**HST 602 History and Theories (3)**

Introduction to theories and models of the practice of history in the last century.

**HST 603 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 spring semester of their M.A. program.

**HST 610 Studies in American History (1-12)****HST 611 Prospectus Workshop (1)**

This course is meant to instruct and assist students as they prepare a prospectus for their Masters thesis or project.

**HST 612 Thesis Workshop (1)**

This course is meant to instruct and assist students as they prepare/write their Masters thesis or project.

**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 645 College Teaching of History Surveys (0)****HST 650 Studies in World History (1-12)****HST 660 Studies in Asian History (1-12)****HST 670 Colloquium in History (3)**

Reading and discussion of major works on selected topics. Colloquium may be taken more than once if topic changes.

**HST 677 Independent Study (1-5)****HST 680 Studies in Ancient History (1-12)****HST 690 Studies in Medieval History (1-12)****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 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)****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 Ph.D. students are required to enroll for a total of six credit hours while they are in residence.

*Prerequisite: doctoral student standing.*

**HST 760 World History Theories (3)**

Introduction to theories of world history.

**HST 790 Directed Study in History (1-16; maximum 24)****HST 850 Research for Doctoral Dissertation (1-16; minimum 16, maximum 60 depending on departmental requirements)**

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: 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.

## INFORMATION SYSTEMS AND ANALYTICS (ISA Business; Department of Information Systems and Analytics)

**ISA 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 ISA 205.

*Prerequisite: MTH 151, STA 261 or equivalents.*

**ISA 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 ISA 205 and any other introductory statistics course (for example, STA 261, STA 301, STA 368).*

**ISA 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.

*Prerequisite: BUS 101 and CSE 148.*

**ISA 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: ISA 235.*

**ISA 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.

**ISA 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

## 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,

hypothesis tests) in regression, model building, regression assumptions, remedies for violations of assumptions, applications in experimental design, and time series analysis.

*Prerequisite:* ISA 205 or equivalent.

### **ISA 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:* ISA 235.

### **ISA 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:* ISA 235.

### **ISA 305 Information Technology, Risk Management, Security and Audit (3)**

The foundations of information technology risk management, security and assurance including the principles of which managerial strategy can be formulated and technical solutions can be selected.

*Prerequisite(s):* ISA 235 or equivalent; ACC 221; or permission of instructor.

### **ISA 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:* ISA 205.

### **ISA 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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/ESP/FIN/MGT/MKT.

### **ISA 331 Quantitative Methods of Decision Making (3)**

Models for managerial decision making under conditions of risk or uncertainty with single or multiple goals. Offered infrequently.

*Prerequisite:* ACC 222, ISA 205, ECO 201 or 202.

### **ISA 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:* ISA 205 or equivalent. Cross-listed with STA.

### **ISA 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.

*Prerequisite(s):* ISA 205 or STA 363 or STA 368 or STA 301 or equivalent. Cross-listed with STA.

### **ISA 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:* ISA 235.

### **ISA 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 life cycle, methods, techniques, and tools used today.

*Prerequisite:* ISA 235. Co-requisite: ISA 245.

### **ISA 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 ISA 281 and focuses on server-side technologies with web-enabled database driven E-business applications.

*Prerequisites:* ISA 281 and ISA 245.

### **ISA 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.

*Prerequisite:* ISA 245.

### **ISA 406 IT Project Management (3)**

Information technology project management theories, techniques, and software tools are taught. Focus is on the problems and methods of conducting projects with special attention to modern information technology and software implementation projects.

*Prerequisite:* ISA 387 or CSE 201.

### **ISA 414 Managing Big Data (3)**

This course provides an introduction to the storage, retrieval and analysis of unstructured and big data. Topics include web analytics, text processing, text analytics such as sentiment analysis, and trend detection in unstructured data. The course will cover and use frameworks that use distributed computing, cloud-based systems for analyzing business information data that contain both structured and unstructured data. Managing big data in organizations, and visualizing big data is introduced.

*Prerequisites:* ISA 245 and one of ISA 404, ISA 491 or STA 402; or permission of instructor.

### **ISA 432 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:* ISA 291, STA 363 or STA 401 or permission of instructor. Cross-listed with STA.

### **ISA 444 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:* ISA 291 or equivalent.

### **ISA 447 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.

### **ISA 480 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.

### **ISA 481 Topics in Information Systems (1-3; maximum 3)**

Issues oriented seminar focused upon significant emerging topics in the decision sciences field.

*Prerequisite:* determined by professor.

### **ISA 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:* ISA 291.

### **ISA 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 perspective. Respond to issues or problems raised in cases in an analytic and creative manner. Present topic report and research to class.

*Prerequisite:* Farmer School of Business core courses, senior standing.

### **ISA 496 Business Analytics Practicum (3)**

Provide analytics consulting to various business clients to work through and solve analytical, data driven problems. Course will utilize skills gained from previous analytics courses including data mining, visualization, modeling and data skills.

*Prerequisite:* ISA 404 or ISA 491.

### **ISA 602 Graduate Survey in Statistics (2)**

A survey of basic statistics for analysis of business problems; designed for students in the fulltime MBA program.

### **ISA 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.

### ISA 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.

### ISA 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.

### ISA 635 Introduction to Predictive Analytics (3)

Introduction to foundational statistical methods and techniques relevant to predictive statistical modeling. Topics include simple and multiple linear regression models, logistic regression models, nonlinear regression, and classification and regression trees. Widely used statistical software packages will be introduced and used extensively in the course.

*Cross-listed with STA.*

### ISA 636 Managing Data for Business Analytics (3)

A survey of approaches to efficiently organize, store, query, and generate reports from both structured and unstructured data. The course will cover and use frameworks that use relational databases, distributed computing, cloud-based systems for analyzing business information data. An emphasis will be laid on producing information and effectively communicating the results. Managing big data in organizations, and visualizing big data is introduced.

### ISA 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.

skills for music production and notation will be addressed. Participants will learn the skills-based foundations of music technology through hands-on projects. Critical discussion will consider the social impact of contemporary and historical systems of recording, notation, and dissemination. Applications in the fields of interaction design, music entertainment, game design, digital signal processing, electrical engineering, music education, acoustics, and mass communications will be explored. IIA, V.

*Cross-listed with MUS.*

### IMS 222 Web and 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 with 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.*

### 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.*

### IMS 253 Building Interactive Objects (3)

Building Interactive Objects lays the skills groundwork for creating physical prototypes of interactive objects. The course will provide familiarity with varied materials and methods of working with them, providing a vocabulary for designing physical objects, as well as many points of departure for future exploration. Basic interactive electronics will be introduced. We will execute small projects in wood, paper and plastic, using hand tools, power tools and digital rapid prototyping equipment, along the way discussing the strengths and limitations of each in relation to the others.

### IMS 254 Design Principles Applied (3)

An understanding of design principles is central to the creation of digital solutions and interfaces. This course introduces students to the principles of design in a seminar format with some simple exercises to apply various principles. Whether it be the design of a system/organization or the creation of an application like a website, a design solution is the unification of various elements. This multi-disciplinary approach explores various forms of design and how principles are used to create a holistic solution. No prior design experience required.

### IMS 257 Web Interaction Programming (3)

Covers the basic coding patterns and practices present in all programming languages with an emphasis on those languages most common in web and mobile application platforms. It will take students through the fundamentals of algorithm design and then move on to expressing those designs in several popular languages. Because of the focus on web environments, this course will also explore the difference between presentation (such as with HTML) and interactivity (such as with JavaScript). The web and mobile focus will also lead to rudimentary discussions on client/server architectures and what content delivery choices are available when a mobile device such as a smartphone or a tablet have such strong technical capabilities. No prior experience in web authoring is required.

### IMS 259 Art and Digital Tools I (3)

A hands-on tour of ways in which computers can become creative tools for making art. Projects will familiarize students with video art,

## INTERACTIVE MEDIA STUDIES COURSES (IMS Arts and Science, Interdepartmental)

### 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.*

### 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 The Analysis of Play (3)

Offers an introduction to key historical and contemporary research in game studies and theories of play with particular attention paid to the digital video game. The course surveys current debates and issues in the field of game studies, introduces various methods for interpreting games and cultivates a deeper understanding of the importance of games and play in contemporary social, political and cultural contexts.

### IMS 212 The Design of Play (3)

An introduction to the many philosophies of ludology, the study and design of play.

### IMS 221 Music Technologies (3) MPF

Introduces students to the fundamentals of music technology in the context of its historical and cultural use. Scientific foundations of acoustics, digital audio, and audio engineering as well as technical

digital photo manipulation, electronics, computer programming and digital fabrication. An emphasis is placed on experimentation and developing personal creative process, as well as considering how digital tools integrate with hands-on techniques.

*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 261 Information and Data Visualization (3)**

Introduction to both static and interactive information and data visualization, 3D simulations, and virtual reality. Includes basic statistical and design principles for data visuals and diagrams. The course covers the history, context, ethics and theory of analytical design. Includes application and creation of static and interactive visuals.

*Recommended prerequisite:* IMS 222 or IMS 257.

### **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.*

### **IMS 304 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.

*Cross-listed with MUS 303.*

### **IMS 319 Foundations in Digital 3-D Modeling and Animation (3) MPT**

Provides knowledge in the underlying concepts and practical skills in the design and development of computer generated 3-D imagery. Examines 3-D modeling; animation, lighting and rendering; character animation; and other related topics.

### **IMS 324 Ethics and Digital Media (3)**

Students will focus on key ethical issues related to online writing, communication, and visual design. Course will introduce key ethical principles, including principles of rhetoric, communication, and design ethics, as well as key principles of professional ethics as articulated in fields like professional writing, technical communication, and graphic design. Topics include intellectual property, access and universal design, privacy and surveillance, visual representation and manipulation, global communication and cultural difference, economic issues of justice and equity, and professional rhetorics.

*Cross-listed with MAC/ENG.*

### **IMS 333 Digital Innovation and Entrepreneurship (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 (0-20)**

For credit internships/pre-professional practical experiences for qualified students.

*Cross-listed with ART.*

### **IMS 351 Introduction to Mobile Application Development (3)**

Examination of the critical issues related to development of mobile applications; creation of application non-native mobile applications using graphical and script-based programming languages; ethics of mobile applications; mobile media and user interfaces for mobile devices; problem analysis for assessing applicability of mobile solutions.

### **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 graphics and video. Students explore this powerful application as a means of personal expression and as an applied development tool with a focus on usability and how motion enhances understanding and increases user engagement.

*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 Art and Digital Tools II (3)**

A continuation of methods introduced in Art & Digital Tools I (ART/IMS 259). Personal methods will further develop while greater technical proficiency is pursued. Projects may include digital photo manipulation, video, electronics, computer programming and digital fabrication.

*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 404/504 Advanced Data Visualization (3)**

Communicating clearly, efficiently, and in a visually compelling manner using data displays. Identifying appropriate displays based on various data characteristics/complexity, audiences, and goals. Using software to produce data displays. Integrating narratives and data displays. Critiquing visualizations based on design principles, statistical characteristics, and narrative quality.

*Prerequisites:* at least one of the following: STA 261, 301, 368, 671; IMS 261; ISA 205; or by permission of instructor. *Cross-listed with JRN/STA.*

### **IMS 404Y Mind and Medium (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.

*Cross-listed with ARC.*

### **IMS 407/507 Interactive Business Communication (3)**

Writing and communicating effectively within business contexts, with an emphasis on researching, reporting, proposing, and maintaining relationships using digitally networked interactive technologies.

*Cross-listed with ENG.*

### **IMS 411/511 Visual Rhetoric (3) MPT**

Provides an introduction to the theory and techniques of visual rhetoric used by professional communicators. Covers elements of layout, design, and typography, giving students practice with short and longer print texts and non-print media.

*Prerequisite:* ENG 224. *Cross-listed with ENG.*

### **IMS 413/513 Usability and Digital Media Design (4)**

Digital media present marketers with a tremendous range of new branding vehicles, many of which are only now being implemented into marketing communications. In this class we will explore the role that these media play in stand-alone branding campaigns and as part of integrated marketing communications campaigns. To do this, we will also consider how traditional branding theory has evolved to accommodate theories of human-computer interaction.

### **IMS 414/514 Web and Social Media Analytics (3)**

Examines and develops analytical ability with respect to the variety of information provided by web and social media behaviors. Students will learn about the mechanisms for observing behavioral and consumer generated information and the leading-edge technologies that aid in the collection and analysis of these data. We will focus on strategic and practical ways to provide radical personalization, improve consumer relationships, and develop effective and value-driven online marketing activities.

### **IMS 416/516 Writing for Global Audiences (3)**

This course focuses on how to write effectively in print and digital media for global audiences. Students will research cross-cultural written communication, including networked communication, and they will develop intercultural literacy skills necessary for writing to global audiences. Through frequent writing assignments, students will learn and enact the theories and strategies for targeting print and digital communications to international and culturally diverse audiences.

*Cross-listed with ENG.*



**IMS 418/518 Social Media Marketing and Online Community Management (3)**

Traditional advertising and marketing models are being increasingly challenged by a world in which content creation, transmission, and aggregation are being decentralized. Markets are now conversations – some very short. Social media are living conversations that present marketers with the challenge of how to understand and participate in those conversations in an authentic and value-based manner. Moreover, these conversations don't happen in a vacuum. The connected nature of different social (and physical) relationships define a community of interest. The community manager uses this entire space to help bring value to this community. This class examines the variety and taxonomy of social media and the strategies and tactics associated with social media marketing and community management.

*Recommended prerequisite:* IMS 201.

**IMS 419/519 Digital Branding (3) 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.

*Recommended prerequisite:* MKT 291. *Cross-listed with MKT.*

**IMS 422/522 Advanced Web Design (3)**

This course is an opportunity to investigate interactive design as it relates to a variety of media types used by businesses. Using industry standard measures of effective design methods, students will learn to design and evaluate interactive products for business needs. This includes the design and evaluation of websites, games, kiosk systems, and others. Topics include the use of standard interaction (e.g. mouse, touchscreens) but also extend into emerging interaction through eye tracking, computer vision, and haptic interface. 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.

*Prerequisite:* IMS 222, IMS 257, IMS 261; or a working knowledge of HTML/CSS/JavaScript; or by permission of instructor.

**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 MAC 440.

**IMS 445 Game Design (3) MPT**

Develops theoretical foundations, methods and skills in building 3-D gaming environments.

**IMS 452 Senior Degree Project (3)**

Independent interactive media research project, to be completed in the final year of IMS coursework. This project provides an opportunity for the student to synthesize various strands of their academic work, professional experiences and knowledge.

**IMS 461/561 Advanced 3D Visualization and Simulation (3)**

Advanced course in 3D simulations, motion tracking, 3D data visualization and virtual reality. Provides background, theory and practice in creating 3D visualizations and in using game technology for non-game applications like training, digital heritage or interactive data display.

*Recommended prerequisites:* IMS 222, IMS 259 or IMS 319.

**IMS 487/587 Game Prototyping, Pipeline and Production (3)**

In this class students will learn how to create a contemporary computer game, applying standard techniques for creating art assets, communicating design and developing a playable demo. Students are expected to combine the knowledge and experience they have gained in preceding game courses to design and develop an engaging play experience from concept to completion.

**IMS 490/590 Advanced Topics in Interactive Media Studies (3; maximum 6)**

Sample Description for course in "Digital Prototyping": In industries where rapid design and development processes are growing, prototypes are becoming the way to sell your idea. Whether it's a business pitch, a brand new idea in video game design, or a website that breaks convention, good digital prototypes are your proof of concept. This course helps students understand the processes and techniques used to build effective prototypes that demonstrate and test your ideas. This course will incorporate a diverse set of digital and non-digital techniques and tools to sell your ideas. The reading is a multi-disciplinary cross-section of rapid prototyping literature.

## 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 154 Introduction to Study Abroad (2)**

Introduces students to cultural basics, skills, and host-country specifics required for maximizing their study abroad experience and for respecting and interacting with people in other cultures. Students will consider questions, issues, and challenges that will be part of their travel, study, and daily lives while studying abroad and develop tools for increased cultural competencies.

*Prerequisite:* spring semester sophomore, junior, or senior standing.

**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 156 Study Abroad Reentry Seminar (1)**

Explores meanings of the student's international education experience. Limited to students in their first semester following a study abroad experience.

**IDS 159 Strength Through Cultural Diversity (3) MPF**

Serves as an interdisciplinary introduction to diversity. A primary goal of this course is to facilitate students' abilities to build their cultural competencies and their abilities to work toward a socially just and inclusive world by providing the conceptual tools and vocabulary to think about, discuss and experience diversity. Topics covered include multiculturalism, ethnocentrism, prejudice, discrimination, privilege, the impacts of social and cultural change, and the engagement of students in the global community. IIC, IIIB.

**IDS 206 Diversity and Culture in American Film (3) MPF**

Analysis of the representation of diversity and culture as portrayed in American motion pictures. IIB. CAS-B.

*Cross-listed with MAC/FST.*

## 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). IIC, Cul, H.

*Cross-listed with GEO/SOC.*

#### **ITS 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. Taught in English. IIB, Cul, H.

*Cross-listed with ATH/CLS/HST/POL/REL/RUS.*

#### **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. CAS-C.

*Cross-listed with ATH 301.*

#### **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 Internship (0-20)**

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.*

#### **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. CAS-A.

*Prerequisite: for 201 ITL 102 or 105W or equivalent; for 202 ITL 201.*

#### **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. CAS-A.

*Prerequisite: ITL 102 or 105W or equivalent.*

#### **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. 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. IIB, Cul, H. CAS-B. *No prerequisites. Offered once a year. Cross-listed with AMS/FST.*

#### **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. Offered once a year. Cross-listed with FST. 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. CAS-B-LIT.

*Prerequisite: ITL 202 or 205W or equivalent.*

#### **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. CAS-A.

*Prerequisite: ITL 202 or 205W or equivalent.*

#### **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 as 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. 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. CAS-B-LIT.

*Cross-listed with ENG.*

**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.

*Prerequisite:* ITL 202 or 205W, or the equivalent (two years of university-level Italian), or permission from the instructor.

**ITL 420 Senior Writing Workshop for Italian Studies Majors (3)**

Students share, critique, and discuss portfolios of writing assignments from previous Italian Studies courses with instructor and with each other, and revise them in two genres: one for a specialized audience, with the aim of submitting it for a national essay contest, and the other for a popular audience, to submit for publication in the "travel" section of a newspaper, magazine, or e-publication.

*Co-requisite:* ITL 221.

**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. Graduate students will do supplementary directed reading in Italian in their field of graduate study. 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, Asian, and Middle Eastern Languages and Cultures)

**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. CAS-A.

*Prerequisite:* JPN 201 or equivalent.

**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. IIB, Cul, CAS-B-LIT.

*Cross-listed with CHI.*

**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.*

**JPN 279 Buddhism and Culture: China and Japan (3) MPF**

A study of the art and literature of China and Japan in the historical and religious context of popular Buddhism. IIB, H. CAS-B-LIT.

*Cross-listed with ART.*

**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; Department of Media, Journalism, and Film)

**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.

**JRN 201 Reporting and News Writing I (3)**

Introduces basic news writing, news gathering, and interviewing. Emphasizes 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 MAC 301.*

**JRN 303 Online Journalism (3)**

Explores 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* IMS.

**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:* MAC 211 and JRN 202, major status, or permission of instructor. *Cross-listed with* MAC.

**JRN 314 Digital Video Reporting (3)**

Advanced-level coursework emphasizing digital video writing, reporting and editing. Students will learn to produce video news stories across broadcast television and mobile platforms.

*Prerequisite:* MAC 211 and JRN 202, major status, or permission of instructor. *Cross-listed with* MAC.

**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)**

Engages students in 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 Internship (0-20)**

See Journalism Program Internship Coordinator for approval.

**JRN 350 Specialized Journalism (3)**

Focuses on rotating topics such as In-Depth Reporting, Business Reporting, Opinion Writing, Political Reporting, Sports Reporting, and Photojournalism.

*Prerequisite:* JRN 201.

**JRN 404/504 Advanced Data Visualization (3)**

Focuses on how to communicate clearly, efficiently, and in a visually compelling manner using data displays. Identifying appropriate displays based on various data characteristics/complexity, audiences, and goals to use software to produce data displays to integrate narratives and data displays; and to critique visualizations based on design principles, statistical characteristics, and narrative quality. CAS-QL.

*Prerequisites:* at least one of the following: STA 261, 301, 368, 671; IMS 261; ISA 205; or permission of instructor. *Cross-listed with* IMS/STA.

**JRN 412 Public Affairs Reporting (3)**

An advanced class that focuses on reporting about issues that affect people's lives. Students learn to locate and analyze data sets that shed light on those issues. They also learn to develop story ideas from such data, and to incorporate the data into elegantly written stories accompanied by effective visual representations of related data. CAS-QL.

*Prerequisite:* JRN 201. **NOTE:** This course is NOT a pre-requisite for JRN 318.

**JRN 415 Practicum in Television Journalism (4)**

Provides 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:* MAC 211, JRN 202 and either MAC 314 or applied television journalism experience. *Cross-listed with* MAC.

**JRN 418 Critical Writing in Journalism (3)**

Focuses on theory and practice in reviewing books, stage productions, motion pictures, and concerts for mass media.

*Prerequisites:* JRN 201 and JRN 318.

**JRN 421 Capstone in Journalism (3)**

Integrates theory and practice of journalism; issues of law, ethics, and history as they pertain to journalism. Topics vary each year.

*Prerequisite:* JRN 201 and senior standing.

**JRN 426/526 Inside Washington (8)**

Engages students in an intensive study of Washington, D.C. - 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* MAC/POL.

**JRN 427 Inside Washington Semester Experience (4)**

Engages students in an intensive study of the contemporary Washington, D.C. - government institutions, public officials, journalists, consultants, staff, and interest groups - through reading, lecture, "on-site" observations, expert presentations, discussion, research, and writing. Course is part of a 16-credit semester program conducted in Washington, D.C.

*Prerequisites:* permission of instructor. *Concurrent course(s):* JRN/MAC/POL 454; COM/POL/JRN 377 or 477; COM/JRN/POL 340. *Cross-listed with* MAC/POL.

**JRN 429/529 Environmental Communication (3)**

Examines theories, principles, and methods for communicating environmental concepts and scientific information verbally, textually and visually to a range of audiences and stakeholders. Students will work with scientists, peer communities, clients, and focus groups to develop effective and appropriate environmental communications across mediums. Projects may include producing scientific posters, writing reviews of research projects on an environmental problem, preparing oral presentations, creating visual story of scientific work, interviewing scientists for a general news story, writing environmental proposals, and facilitating focus groups.

*Cross-listed with* ENG/IES.

**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 with typical urban opportunities and 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. Course is part of a 16-credit semester program conducted in Washington, D.C.

*Cross-listed with* MAC/POL.

**JRN 462 Red Atlantic: Practicum in U.K. Media, Advertising & Public Relations (3)**

London-based. Provides an overview of media and advertising practices in the U.K. as a foundation for practicum experience developing an integrated marketing communications campaign for a real client.

*Recommended prerequisites:* MAC 143 and either MAC 211, COM 258, or COM 259; or permission of instructor. *Cross-listed with* MAC.

## KINESIOLOGY AND HEALTH COURSES (KNH Education, Health and Society)

**KNH 102 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 104 Introduction to Food Science and Meal Management**

Introduction to food composition, selection and preparation, principles and techniques of meal management. Includes lecture (2) and lab (2).

**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 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: KNH 110S or 110T.*

**KNH 112 Transition for College Students (2)**

This course is designed to help students prepare for the transition from high school to college. This course will focus on personal and leadership development through small group discussions, hands on experience, guest lectures, and a variety of readings and assignments to help you acclimate to college. Students will explore their values and belief systems, practice advanced study strategies and techniques, develop critical time management skills, research various leadership theories, and develop their own personalized development plan to help them achieve their goals.

*Prerequisite: first and second year students only.*

**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 150M Mountain Biking (2)**

Students will learn about mountain biking: equipment, performance, safety, its role in health promotion, environmental issues, trail development and maintenance, and building community. Students will learn how to mountain bike safely and will have opportunities to bike on a variety of mountain bike trails of different difficulty levels. Students will also participate in mountain bike trail maintenance and sustainability.

**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 171 Personal Nutrition: a survey course (2)**

Nutrition topics relevant to young adults will be explored through application of basic nutrition principles to real life situations. Self-assessment and monitoring of personal nutrition status are an integral part of this course. This course is for non-majors. This is not substitution for KNH 102 Fundamentals of Nutrition for KNH majors.

**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 183L*

**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 Physical Activity and Health (3) MPF, MPT**

Critical examination of relationships among exercise, physical activity, fitness, and health from epidemiological perspective. The role of genetic, sociocultural, economic, geographic and political influences on physical activity patterns, exercise habits, fitness and health are explored. A description of the physiological mechanisms that link physical activity and health are also examined. 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. Co-requisite: KNH 194L.*

**KNH 194L Standard First Aid and CPR Laboratory (1)**

Laboratory portion of KNH 194.

*Co-requisite: KNH 194.*

**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 Understanding Drugs for the Health Promotion Professional (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 209 Medical Terminology for Health Professionals (3)**

Provides the opportunity for students to comprehend basic terms related to anatomy, pathophysiology, diagnostics and treatment. Students will understand word parts necessary to build medical terms and acceptable medical abbreviations and symbols. Credit not granted to students who have earned credit in BTE 224.

**KNH 212 Sport Management (3)**

Introduces the foundations and principles of sport management, with a broad focus on administration, supervision, and leadership in the business of sport at all levels.

**KNH 213 Global and Community Nutrition (3)**

Explores the integration of current food and nutrition research into the development of public policy with emphasis on implementation of Global and Community Nutrition programs.

*Prerequisite: KNH 102.*

**KNH 214 Global Well-Being (3)**

As a result of the positive psychology movement that has gained momentum around the world, well-being is now known to be a significant factor influencing quality of life, health, and human performance. This course explores the essence of well-being and its relevance to everyday living. The course also broadens students' perspective by exploring well-being within cultural and global contexts. Students will be given multiple opportunities to examine institutional and cultural influences on individual and societal well-being as well as the global forces influencing the development and use of the human experience of well-being across the globe.

**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. 2 Lec.  
*Prerequisite: EDP 201 or FSW 281. Cross-listed with NSG 232.*

**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 WGS 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 Health Issues for Children (3)**

This course examines contemporary issues of health and wellness for children ages three to eight years. Childhood health encompasses physical, intellectual, emotional, social, spiritual, and environmental components. The needs of all children, including those with acute and chronic illness and disability, will be promoted through a child-centered approach in a variety of educational contexts.

**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 272 Contemporary Perspectives on Leadership in Sport Contexts (3)**

Examination of contemporary theories of leadership as they apply to sport settings and consideration of the sociopolitical and socioenvironmental factors that may affect leadership effectiveness in the sport domain.

**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**

This course engages students in a critical examination of leisure as negotiated practices and experiences. Issues of globalization, sustainability, social equality and social justice are explored and provide a context for students to reflect on their leisure and inform their future professional practice. 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. IIC, H.  
*Cross-listed with BWS/SOC.*

**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.  
*Prerequisites: KNH 183, 183L, and 244. Co-requisite: KNH 285L.*

**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.  
*Prerequisites: KNH 183, 183L, and 244. Co-requisite: KNH 285.*

**KNH 286A Practicum in Athletic Training I (1)**

Athletic training major course designed to develop clinical competencies in a directed progressive manner.  
*Prerequisites: KNH 182 and KNH 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-orthopedic 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.  
*Prerequisite: KNH 183, KNH 183L, KNH 244. Co-requisite: KNH 287.*

**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. 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.

**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 295 Research and Evaluation Methods (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. Cross-listed with FSW.*

**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 and 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 304 Advanced Nutrition (3)**

This course is the study of normal nutrition and physiologic function in the human body with emphasis on interpretation and use of dietary research and data.

*Prerequisite: KNH 102, CHM 141, and CHM 144.*

**KNH 313 Sport Economics and Finance (3)**

This course provides a comprehensive synopsis of the application of economics and financial management used in the sport organization decision-making context from both a macro and micro level.

**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.

*Cross-listed with PSY.*

**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. Taken concurrently with KNH 348F.*

**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, Power and Inequality (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.

*Co-requisite: KNH 381L Biodynamics of Human Performance Laboratory.*

**KNH 381L Biodynamics of Human Performance Lab (1)**

Provide students with opportunities to explore and apply concepts presented in lecture to daily activities and sport movements through hands-on experiments by using some of the measurement equipment used in the field of biomechanics.

*Co-requisite: KNH 381.*

**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 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 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 102, 104 and junior standing.

**KNH 404 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 104 and a minimum of eight hours in chemistry.

**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 411 Medical Nutrition Therapy I (3)**

Examination of physiological and metabolic changes in selected states and implications for medical nutrition therapy.

*Prerequisites:* KNH 102 and a minimum of 6 hours chemistry.

**KNH 413 Medical Nutrition Therapy II (3)**

In depth study of the principles of nutrition in more complicated disease states of the Neurological System, Respiratory System, Musculoskeletal System, and Neoplastic and Metabolic Disorders.

*Prerequisites:* KNH 102 and a minimum of 6 hours in chemistry. *Co-requisite:* KNH 411.

**KNH 414/514 Facilities and Event Management in Sport (3)**

A comprehensive focus on the planning, funding, and operation of sporting events and sport/recreation facilities of all types.

**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 multidisciplinary connections across the curriculum including before-school and after-school programming. Required for middle school licensure and health education licensure.

**KNH 416/516 Sport Marketing (3)**

Provides an overview of various aspects of sport marketing, or the business of promoting and selling products and services in the sport industry.

**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.

*Prerequisites:* 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.

*Prerequisites:* 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.

*Prerequisite:* KNH 102.

**KNH 438/538 Principles of Effective Coaching (3)**

Examination of the research and theory on the effects of different types of coaching behaviors and practices on the performance and psychosocial development of athletes and evaluation of the contextual (socioenvironmental and sociocultural) factors that may affect the coach-athlete interaction across different types of sport settings.

**KNH 447/547 Sport Pedagogy for Coaches and Practitioners (3)**

This course describes models of instruction for coaches and practitioners with the application of technical teaching styles, strategies, and skills in sport. Students will focus on the analysis of the teaching-learning process and the use of appropriate coaching/teaching methods and assessment for all learners.

**KNH 448/548 International Perspectives in Sport (3)**

Students travel to selected countries to learn about historical, cultural, and diverse sport perspectives that exist outside of the United States.

*Prerequisite:* junior standing or above.

**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 455 Comparative Exercise Physiology (3)**

Study of muscular, cardiovascular and pulmonary systems in a diversity of organisms (vertebrates and invertebrates). Focus on activity and locomotion with emphasis on comparative methods.

*Prerequisite:* BIO 305 or KNH 468; or permission of instructor. *Cross-listed with BIO.*

**KNH 462/562 Health Promotion 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.

*Prerequisite:* junior or graduate standing. *Co-requisite:* KNH 468L.

**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 (3) MPT**

Critical analysis of leisure and sport as contexts for and practices of adult development and aging.

*Prerequisite:* junior or graduate standing.

**KNH 472/572 Sport in Schools and Colleges (3)**

Critical analysis of the historical development, and reciprocal economic, political, and cultural forces and functions, of interscholastic and collegiate sport in the U.S. Particular attention is given to the NCAA and its practices and policies related to sport in American education.

*Prerequisite:* junior or graduate standing to enroll in this course (or permission of course instructor).

**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 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.

*Prerequisite: junior or graduate standing. Cross-listed with WGS.*

**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 481 Life at Altitude (6; maximum 12)**

During this course we will visit Nepal/Tibet and trek through the Himalayas to Mt Everest Base Camp. We will perform physiological tests before and during the workshop to assess the effects of altitude exposure on the body. We will live among a group of Sherpa and learn about their culture including their religion, role of the family, health care education etc. All majors are welcome. No trekking experience necessary.

**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.

*Prerequisite: KNH 382.*

**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 495 Practicum in Sport Leadership and Management (3) MPC**

This course provides a setting for students to integrate practical field experiences with their sport leadership and management coursework and liberal arts foundation. Students complete a field-based experience in management, coaching, sport journalism, or sport media, and attend intermittent class meetings to discuss and critically analyze these professional practice experiences. Professional development skills are also addressed, such as resume writing, interviewing, professional networking, and professional standards and expectations within the field.

*Prerequisite: junior standing or higher. Co-requisite: KNH 212 and KNH 272.*

**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 620 Research Problems (1-4)**

*Prerequisite: permission of department chair and instructor.*

**KNH 621 Research Foundations in Kinesiology and Health (3)**

Provides foundational knowledge and skills regarding the research process in kinesiology and health, including a critical analysis of research traditions and practices in the field.

**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 632 Psychological Foundations of Sport (3)**

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 (3)**

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 Physical Activity Motivation (3)**

This broad survey course examines physical activity from primarily a social psychological perspective. The focus is on the role physical activity plays in people's health and wellbeing as well as the psychological and social factors that influence their physical activity participation. The philosophy and effectiveness of varying types of physical activity interventions, programs, and strategies are also examined.

**KNH 668 Advanced Physiology and Biophysics of Human Activity (3)**

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 676 Cultural Studies of Sport (3)**

Critically interrogates US sport as an important socio-cultural institution and as a site for the production, reproduction and contestation of gender, race and class ideologies.

**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; Department of German, Russian, Asian, and Middle Eastern Languages and Cultures)

**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 permission of instructor.*

**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. CAS-A.

*Prerequisite: KOR 201 or permission of instructor.*

## 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. IIB, IIBB, CUL.

*Cross-listed with BWS/FST/MUS/POR.*

**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. IIC, IIBB, Cul, H, CAS-C.

*Cross-listed with ATH 206.*

**LAS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)**

This is an intermediate level course which enables students to investigate and discuss interdisciplinary practices of knowledge creation and dissemination. Students will practice a variety of writing and other communication strategies necessary for the effective dissemination of ideas to interdisciplinary audiences and the general public, and can expect to gain experience in working with a wide spectrum of interdisciplinary research, tools and

methods while engaging intellectually in interdisciplinary modes of thinking, reading, listening, and speaking.

*Cross-listed with AAA/AMS/BWS/WGS.*

**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 243 History of the Atlantic Slave Trade, 1400s to 1800s (3)**

Development of European slaving activity in the African continent in the 15th through 19th centuries. Emphasis on the activities of Portuguese, Spanish, English, French and Dutch slavers, including the Middle Passage and also the less-studied slave trade in the Mediterranean and Indian Ocean. Identifies the economic forces, as well as the social consequences, of the ongoing slave trade.

*Cross-listed with BWS/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. IIB, IIBB, Cul, CAS-B-LIT.

*Cross-listed with ENG.*

**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. IIB, IIBB, Cul, H.

*Cross-listed with HST.*

**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 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.

*Cross-listed with ART.*

**LAS 319 Revolution in Latin America (3)**

History of modern Latin America through the experience of revolution in the 20th century. Focus on diverse expressions of political and social change with emphasis on Cuba, Mexico, Nicaragua, and Brazil.

*Cross-listed with HST.*

**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/WGS.*

**LAS 332 Latin American Popular Culture (3)**

Interprets and contextualizes elements of Latino and Latin American popular culture (art, music, food, and celebrity) in light of academic readings in Spanish and English that explore issues of hybridity, representation, commodification, and the quest for authenticity. Conducted in Spanish and English.

*Prerequisite: SPN 311 or permission of instructor. Cross-listed with SPN.*

**LAS 385 Race, Science, and Disease in the Americas (3)**

Surveys a variety of debates over race and disease since the European overseas expansion to the Americas, particularly in those regions that developed plantation-based agriculture. Begins with the medical and scientific construction of ideas about race from the conquest to the eighteenth century. Places the development of racial theories of sickness and health in a broad social and political context, and, in particular, explains the medical salience of race in the settings of slavery and colonialism. Discussions will focus primarily on Latin America, the Caribbean, and the United States, but will also explore the making of knowledge about race in global setting.

*Cross-listed with BWS/HST.*

**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 GEO/GLG/IES.*

**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 FST/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.

*Prerequisite: a college course in biology, environment concepts, or related topics. Cross-listed with IES/GEO.*

**LAS 417/517 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/IES 415/515.*

**LAS 418 Caribbean Archaeology Field & Lab Methods (3)**

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. Cross-listed with ATH 415.*

**LAS 424/524 Seminar on Modern Architecture in Latin America (3)**

The course combines general background readings on the subject with specific readings on a selected group of countries, architects and projects based on a thematic organization. The faculty presents introductory lectures, while class members will present the results of individual and team research and analysis as assigned. Some of the analysis will be graphical, some will be written; all presentations will require illustrations of the work(s) in question.

*Cross-listed with ARC.*

**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.*

## 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 (4)**

Intensive review of basic Latin grammar with practice in reading and translation. The reading in the course prepares students for Latin 202. Recommended for those whose previous preparation is insufficient.

*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.

*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. CAS-B-LIT or CAS-A (not both).

*Prerequisite: LAT 121 or 201 or three years of high school Latin.*

**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 310A: Latin Epigraphy**

**LAT 310T: Roman Comedy**

**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. CAS-B-LIT. Offered infrequently.

*Prerequisite: LAT 202.*

**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 410C: Roman Novel**

**LAT 410S: Hannibal, Cleopatra and Others**

**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. 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: ISA 205 or STA 261, proficiency in spreadsheet use, 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: MGT 291.*

**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.

*Prerequisite: STA 368, ISA 205 or equivalent. Cross-listed with EGM.*

**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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.*

**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 411/511 Leading and Managing Projects (3)**

Addresses fundamental aspects of leading and managing complex projects including: organizational leadership, strategic planning and project selection, project life cycle planning, estimating project schedule and cost, planning, organizing, directing and monitoring resources, analyzing and managing risk, team building and conflict management, assessing progress and performance, project audit and closure, and related topics.

*Prerequisites: STA 368, STA 301, ECE 345, ISA 205, or STA 261; or equivalent. Cross-listed with EGM.*

**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 416 Organizational Change Management (3)**

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.

*Prerequisites: MGT 291.*

**MGT 432 Global Strategic Sourcing (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.*

**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.*

**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.*

**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.*

**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.

*Prerequisite: FIN 301 or permission of instructor. Cross-listed with FIN 463/563.*

**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.*

**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): senior standing and Farmer School of Business core, 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. Offered spring semester only.

*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 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 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: MBA Standing.*

**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 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)**

## 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.

**MKT 292 Careers In Marketing (1)**

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 (3)**

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: MKT 291 and MKT 292.*

**MKT 325 Consumer Behavior (3) 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 earned and a sponsoring faculty member prior to the start of the internship. Cross-listed with ACC/BLS/BUS/ECO/FIN/ISA/MGT/MKT.*

**MKT 335 Marketing Research (3) 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: ISA 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: MKT 291.*

**MKT 412 Sustainable Marketing Management (3)**

The goal of this course is to provide an overview of the role of sustainability in marketing strategy. We use the triple bottom line perspective to cast sustainability as the simultaneous pursuit of financial, social/relational, and environmental performance. The

course provides an assessment of current efforts to pursue sustainability with a primary focus on the interaction of the marketing organization with the environment. In the process, we investigate the interaction between consumption and the physical environment. We examine specific marketing tactics employed by firms seeking to maximize triple bottom line performance. We subsequently address consumption processes in the household, industrial, services, and transportation sectors of the economy.  
*Prerequisite:* MKT 291.

#### **MKT 415 Marketing to Organizations (3) 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 Digital Branding (3) 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. Cross-listed with IMS.

#### **MKT 425 Global Marketing (3)**

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:* ISA 205, MKT 291.

#### **MKT 435 Branding and Integrated Marketing Communication (3) 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:* MKT 435, senior standing, and Farmer School of Business core, or permission of instructor.

#### **MKT 495 Strategy Works (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:* senior standing and Farmer School of Business core, or permission of instructor.

#### **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 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:* 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):* ISA 621 and MKT 618.

#### **MKT 635 Branding and Brand Equity Management (3)**

Theory and practice of brand equity management in consumer and business-to-business environments. 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 618.

#### **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:* MKT 618.

#### **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 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.
3. Credit cannot be earned in a lower level course after earning credit at a higher level.

**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.

*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:* a grade of C or better in MTH 101 or qualifying placement score.

**Note:** Students who have credit for MTH 151 or a higher mathematics class may not enroll in MTH 102. The only exceptions are when a student audits the course or meets the criteria of the Course Repeat Policy, as stated in the Student Handbook.

**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:** Students who have credit for MTH 151 or a higher mathematics class may not enroll in MTH 104. The only exceptions are when a student audits the course or meets the criteria of the Course Repeat Policy, as stated in the Student Handbook.

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. V.

*Prerequisite:* two years of high school algebra or a college algebra course.

**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. V. CAS-E.

*Prerequisite:* MTH 102 or 104 or three years of college preparatory mathematics including Algebra II.

**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.

**Note:** Students who have credit for MTH 151 or a higher mathematics class may not enroll in MTH 123. The only exceptions are when a student audits the course or meets the criteria of the Course Repeat Policy, as stated in the Student Handbook.

**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.

**Note:** Students who have credit for MTH 151 or a higher mathematics class may not enroll in MTH 125. The only exceptions are when a student audits the course or meets the criteria of the Course Repeat Policy, as stated in the Student Handbook.

**MTH 151 Calculus I (5) MPF, MPT**

Limits and continuity, derivatives, integration, calculus of trigonometric and exponential functions. V. CAS-E.

*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.

**Note:** Students who have credit for a MTH class for which MTH 251 is a prerequisite may not enroll in MTH 151. The only exceptions are when a student audits the course or meets the criteria of the Course Repeat Policy, as stated in the Student Handbook.

**MTH 153 Calculus I (4) MPF, MPT**

Covers same content as MTH 151, but assumes some previous study of calculus. (See MTH 151.) V. CAS-E.

*Prerequisite:* four years of college preparatory mathematics including trigonometry and at least one semester of high school calculus.

**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 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.

*Prerequisite:* 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. CAS-E.

*Prerequisite:* MTH 249 or 249H or 251.

**MTH 222T Introduction to Linear Algebra (Honors) (2)**

Departmental honors version of MTH 222.



*Prerequisite:* MTH 249 or 249H or 251 and permission of instructor.  
*Co-requisite:* MTH 331T.

**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. V.

*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.

**MTH 251 Calculus II (4)**

Continuation of Calculus I. Plane analytic geometry, techniques of integration, parametric equations, polar coordinates, infinite series, approximations, applications. CAS-E.

*Prerequisite:* Grade of C or better in Calculus I.

**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 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. Offered infrequently.

*Prerequisite:* Completion of or concurrent enrollment in Calculus III and MTH 222.

**MTH 331 Proof: Introduction to Higher 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 completion or concurrent registration in MTH 222.

**MTH 331T Proof: Introduction to Higher Mathematics (Honors) (3)**

Departmental honors version of MTH 331.

*Prerequisite:* Calculus II and 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 and MTH 331.

**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.

*Prerequisites:* MTH 222, MTH 252 and MTH 331.

**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**

Teaches how mathematics can help solve real world problems in fields such as biology, ecology, geophysics, engineering, and social sciences. The material is learned through a hands-on approach. A significant amount of class time is spent on a variety of group projects. This seminar introduces mathematical modeling as the art of using mathematics to formulate and analyze practical problems, and emphasizes usefulness of mathematics in understanding complex phenomena.

*Prerequisites:* MTH 222 and MTH 252, or permission of instructor. A differential equations course (MTH 245 or MTH 347) is recommended but not required.

**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 331; or permission of instructor.*

### **MTH 438/538 Theory and Applications of Graphs (3)**

Basic structural properties of graphs, trees, connectivity, traversability (Eulerian Tours and Hamiltonian Cycles), matchings, and vertex and edge colorings. Classic graph algorithms will also be analyzed, including shortest path, minimum weight tree, optimal assignment, etc. Additional topics are selected from network flows, planarity, extremal problems, and directed graphs as time allows. This is a theory-oriented course, so familiarity with mathematical proof is desirable.

*Prerequisite: MTH 222 or 231 or 331; 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. Offered infrequently.

*Prerequisite: permission of instructor.*

### **MTH 441/541 Real Analysis (3)**

Continuity, differentiation, convergence, series and integration, in both one and several variables.

*Prerequisite: MTH 222, MTH 252 and MTH 331.*

### **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 ISA 205.*

### **MTH 451/551 Introduction to Complex Variables (4)**

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, MTH 252 and MTH 331.*

### **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. CAS-QL.

*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, MTH 252 and MTH 331.*

### **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, MTH 252 and MTH 331.*

### **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. Summer only; offered every third summer.

*Prerequisite: licensure in secondary school mathematics or permission of instructor.*

### **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. Summer only; offered every third summer.

*Prerequisite: licensure in secondary school mathematics or permission of instructor.*

### **MTH 620 Topics in Algebra (1-4; maximum 8)**

Topics selected from an area of algebra. Offered infrequently.

*Prerequisite: permission of department chair.*

### **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  $L_p$  spaces, Banach spaces.

*Prerequisite or co-requisite: 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. Offered infrequently.

*Prerequisite: MTH 491/591 or permission of instructor.*

### **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. Summer only.

*Prerequisite: graduate standing and teaching responsibilities in mathematics.*

### **MTH 700 Research for Master's Thesis (1-12; minimum 6, maximum 12)**

## **MECHANICAL AND MANUFACTURING ENGINEERING COURSES (MME Engineering and Applied Science)**

### **MME 102 Introduction to Mechanical and Manufacturing Engineering (3)**

This course introduces students to engineering, with a focus on mechanical and manufacturing engineering. Topics include how to use state-of-the-art tools to: draw, perform computational analyses, model physical systems, and manipulate and present data. The course covers the Engineering Design Process; a systematic approach to problem solving used by all engineering disciplines. Additionally, the course addresses skills including effective time management, an ability to study and work effectively in groups, and professionalism. The course culminates in a team based engineering design project that draws upon all the lessons covered. This course is open to all majors.

### **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: MTH 151 or equivalent; PHY 181, sophomore standing.*

*Co-requisite: MME 102 or equivalent.*

### **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: MME 102 or equivalent; sophomore standing.*

### **MME 223 Engineering Materials (3)**

Study of metals, ceramics, and plastics; dependence of properties on structure; selection and application of engineering materials. 2 Lec. 1 Lab.

*Prerequisite: sophomore standing. Co-requisite: CHM 141.*

### **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. 2 Lec. 1 Lab.

*Prerequisite: MME 211 and 223. Co-requisite: STA 368 or STA 301.*

### **MME 303 Computer-Aided Experimentation (3) MPT**

Study of theory and application of instrumentation and experimentation including: components and concepts of computer-machine interface systems; design of computer-controlled experimentation for real-time industrial measurement, monitoring, and control; AC power analysis; applications of the Laplace Transform. Laboratory component included. 2 Lec. 1 Lab.

*Prerequisite: ECE 205. Co-requisite: MTH 245 or MTH 347. Cross-listed with ECE.*

### **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 or equivalent.*

### **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 or equivalent, PHY 181, and either CPB 219 or MME 211, or permission of instructor. Cross-listed with CPB.*

**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:* MME 211 or CPB 204 or CPB 219. *Co-requisite:* MTH 251 or equivalent. *Cross-listed with CPB.*

**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 or MTH 347.

**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. 2 Lec. 1 Lab.

*Prerequisite:* MME 231, STA 301 or STA 368, or equivalent industrial experience.

**MME 335 Design of Experiments for Quality Control (1)**

This course develops the fundamentals of Design of Experiments and applies them to Quality Control concepts. Projects require the design and implementation of experiments that address engineering problems in quality control, process control and manufacturing. Subsequent data analysis emphasizes robust statistical techniques.

*Prerequisite:* STA 301. *Co-requisite:* MME 334.

**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 or equivalent. *Co-requisite:* STA 368 or CPB 204 or ECE 345. *Cross-listed with CPB.*

**MME 375 Human Robot Interaction (3)**

This course introduces basic robotic principles including kinematics, robot architecture and control. The historic context of robotics will be discussed. Students research current technical and societal issues related to human robot interaction. Throughout the course, students develop a project to observe a small humanoid robot interacting with people. The project includes the design and implementation of the robotic activity.

*Prerequisite:* MME/ECE 303.

**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):* CPB/MME 313, CPB/MME 314, MTH 245 or MTH 347. *Cross-listed with CPB.*

**MME 410 Undergraduate Research Seminar (1)**

Seminar course for initiating research problems in consultation with the faculty advisor and participation in the seminars. For grade only.

*Prerequisite:* permission of instructor.

**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. 3 Lec. 1 Lab.

*Prerequisite:* MME 231, 312.

**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 or MTH 347. *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/CPB 314.

**MME 419 Undergraduate Research Seminar (1-2)**

Research problems in mechanical engineering, manufacturing engineering, or engineering science chosen in consultation with a faculty advisor. Requires a public presentation and oral examination of completed work. For grade only.

*Prerequisite:* MME 410.

**MME 434 Manufacturing Design (3)**

This course focuses on the process of transforming a design concept into a producible artifact. Workparts produced via machining operations will provide the primary context for this process, with supplemental coverage of design considerations for solidification and bulk deformation processes where feasible. Additionally, students will augment their "toolbox" for manufacturing design by gaining both breadth and depth in processes and current topics that are beyond the scope of the typical introductory manufacturing processes course. 2 Lec. 1 Lab.

*Prerequisite:* MME 231.

**MME 435 Manufacturing Competitiveness (3)**

This course provides an in-depth study of the proper selection and sequencing of manufacturing enterprise processes and resources in order to continuously improve operations. The course focuses on process improvement methodologies and their integration into overall production aims to provide value, improve quality, and reduce cost. 2 Lec. 1 Lab.

*Prerequisite:* MME 231 and junior standing.

**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. 2 Lec. 1 Lab.

*Prerequisite:* MME/ECE 303 or ECE 305. *Cross-listed with ECE 436.*

**MME 437 Manufacturing Automation (3)**

This course examines the integration of automation into the manufacturing environment. Through instruction, practical activities and case studies, students will be exposed to programmable logic controllers, robotics, flexible manufacturing systems, computer integrated manufacturing and control technology. 2 Lec. 1 Lab.

*Prerequisite:* MME 231 and ECE/MME 303.

**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.*

**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 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.

*Prerequisite:* graduate student standing or consent of instructor.

**MME 612 Engineering Analysis (3)**

Analytical considerations involving the construction and solutions of mathematical models for processes and systems pertinent to chemical and mechanical engineering. The analytical methods will cover the modeling of steady and unsteady state engineering problems.

*Recommended prerequisites:* CPB 403, 414, 415; MME 412, 414, 436 (or equivalent); or permission of instructor. *Cross-listed with CPB.*

**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 412/512 or equivalent or permission of instructor.

#### **MME 695 Graduate Research Project (1-2; maximum 3)**

Individual research in a selected area of computational mechanics for the MS in Computational Science and Engineering. A maximum of three credits can be applied to graduation for the course intensive (non-thesis) option. Not open to Research (thesis) option students.

*Prerequisite:* graduate standing and permission of advisor.

#### **MME 700 Research for Master's Thesis (0-10)**

Study under graduate faculty supervision of a research problem related to computational mechanics. Maximum of six credit hours of MME 700 may be applied toward fulfillment of the thesis research requirement for the Master of Science in Computational Science and Engineering.

*Prerequisite:* permission of student's graduate advisor.

## **MEDIA AND CULTURE COURSES (MAC Arts and Science; Department of Media, Journalism, and Film)**

#### **MAC 143 Introduction to Media (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.

#### **MAC 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.

#### **MAC 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.

#### **MAC 206 Diversity and Culture in American Film (3) MPF**

Analysis of the representation of diversity and culture as portrayed in American motion pictures. IIIA. CAS-B.

*Cross-listed with FST/IDS.*

#### **MAC 212 Media, Representation, 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.

#### **MAC 211 Introduction to Video 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:* MAC 146, major status or permission of instructor.

#### **MAC 213 Writing for 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:* MAC 146, or permission of instructor. Cross-listed with ENG 257.

#### **MAC 215 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.

#### **MAC 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:* MAC 211, major status, or written permission of instructor.

#### **MAC 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.*

#### **MAC 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.*

#### **MAC 311 Digital Film Production (3)**

Experience in production and direction of television formats with emphasis on applied media aesthetics. Field production theories and exercises.

*Prerequisite:* MAC 211, major status or permission of instructor.

#### **MAC 312 TV Studio Production (3)**

Experience in the production and direction of television formats with emphasis on applied media aesthetics. Studio production theories and exercises.

*Prerequisite:* MAC 211, major status, or permission of instructor.

#### **MAC 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:* MAC 211 and JRN 202, major status or permission of instructor. Cross-listed with JRN.

#### **MAC 314 Digital Video Reporting (3)**

Advanced-level coursework emphasizing digital video writing, reporting and editing. Students will learn to produce video news stories across broadcast television and mobile platforms.

*Prerequisite:* MAC 211 and JRN 202, major status, or permission of instructor. Cross-listed with JRN.

#### **MAC 324 Ethics and Digital Media (3)**

Students will focus on key ethical issues related to online writing, communication, and visual design. Course will introduce key ethical principles, including principles of rhetoric, communication, and design ethics, as well as key principles of professional ethics as articulated in fields like professional writing, technical communication, and graphic design. Topics include intellectual property, access and universal design, privacy and surveillance, visual representation and manipulation, global communication and cultural difference, economic issues of justice and equity, and professional rhetorics.

*Cross-listed with ENG/IMS.*

#### **MAC 325 Social Media Cultures (3)**

In this course, students will research and study the relationship between human social interaction and media. We will consider and compare both analog and digital forms of social media. Students will apply theories from cultural studies, media studies, and communication studies to both online and offline social media in order to understand the interaction between social practices and contemporary media cultures. Students critique and assess multiple forms of social media through active engagement with social media platforms, critical response papers, and final group projects.

*Prerequisite:* MAC 143.

#### **MAC 340 Internship (0-20)**

Applied experience in communication for qualified students meeting departmental and area requirements. See departmental area of major program for specific application information.

#### **MAC 343 Advanced Audio Production (3)**

This course in an advanced study in audio production for the electronic media. Included topics are music recording, narrative and journalism. It includes studio procedures, microphone techniques, and control room operations. This class introduces the student to audio production theory and criticism. The course focuses on sound

aesthetics and values, providing an overview of traditional sound production and the use of digital audio media.

*Prerequisite:* MAC 211, major status, or permission of instructor.

### MAC 353 Audience Studies (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.

### MAC 355 Media Technology & Culture (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.

### MAC 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:* MAC 311 or 312, major status, or written permission of instructor.

### MAC 414 Capstone Pictures: Project in Digital Narrative Film Production (4; maximum 8) MPC

In-depth production of a digital narrative film. This may involve conceptualizing, researching and writing; comprehensive budgeting and planning; creative design of visual and aural elements; management of a production team. Students meet regularly with other students to discuss progress, problems, issues and integrate ideas. Students work together to produce the film and present it to the Miami University community.

*Prerequisite:* appropriate course work in a relevant area and permission of instructor.

### MAC 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:* MAC 211, JRN 202, and either MAC 314 or applied journalism experience. Cross-listed with JRN.

### MAC 440 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.*

### MAC 422 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.

*Prerequisite(s):* Two of the following: COM 257, ENG 320, ENG 420. Cross-listed with ENG.

### MAC 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/POL.

### MAC 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, on-site observations, expert presentations, discussion, research, and writing. Program conducted in Washington.

*Prerequisites:* permission of instructor. Concurrent course(s): JRN/MAC/POL 454; JRN/MAC/POL 377 or 477; JRN/MAC/POL 340. Cross-listed with JRN/POL.

### MAC 443/543 Media Economics (3)

Study of the interrelationships of economic systems, political systems, and the media industries.

*Prerequisite:* major status or permission of instructor.

### MAC 445/545 Electronic Media Policy and Regulation (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.

### MAC 446 Media Globalization (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.

### MAC 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.

### MAC 450 Topics in Communication (3)

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.

### MAC 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.

*Cross-listed with JRN/POL.*

### MAC 461 Gender, Sexuality 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 WGS.*

### MAC 462 Red Atlantic: Practicum in U.K. Media, Advertising & Public Relations (3)

London-based. Provides an overview of media and advertising practices in the U.K. as a foundation for practicum experience developing an integrated marketing communications campaign for a real client.

*Recommended prerequisites:* MAC 143 and either MAC 211, COM 258, or COM 259; or permission of instructor. Cross-listed with JRN.

### MAC 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):* MAC 211 and 311 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; and (4) To learn about research based careers in the Biological sciences.

*Cross-listed with BIO/CHM.*

**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.

*Prerequisites:* BIO/CHM/MBI 102. *Cross-listed with* BIO/CHM.

**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. or B.S. 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. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB.

*Cross-listed with* BIO.

**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. 3 Lec. 1 Lab. IVA, LAB. CAS-D/LAB. CAS-QL.

*Cross-listed with* BIO.

**MBI 121 The Microbial World (3) MPF**

Introduces basic concepts in the study of microorganisms - bacteria, viruses, and fungi. Topics include microbial structure and function, metabolism, genetics and the immune system. Special emphasis is placed on the impact of microorganisms on medicine, agriculture, food production, biotechnology, and the environment. IVA. CAS-D.

**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. IVA, LAB CAS-D/LAB.

*Co-requisite:* MBI 111, 121; or 131 with permission of instructor.

**MBI 131 Community Health Perspectives (3) 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. or B.S. in microbiology. IVA.

**MBI 143 Parasitology and Mycology Labs (1) MPF**

Combination of laboratory exercises, demonstrations, and discussions exploring concepts and techniques used in parasitology and mycology laboratories, including public health, research, and diagnostic laboratories. Does not count as credit toward an A.B. or B.S. in microbiology. CAS-D/LAB.

**MBI 147 Microbiology Introductory Seminar (1)**

Introduces to the Department of Microbiology, degrees offered, departmental and university resources available to help students advance their learning in Microbiology, and opportunities for independent study research. Provides students with professional orientation and networking opportunities by giving them access to faculty, graduate students, alumnae, and guest microbiologists from industry, government and academia with a shared interest in the profession of Microbiology.

**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. IVA, LAB. CAS-D/ LAB.

*Prerequisite:* MTH 101 (or equivalent) or BIO 171.

**MBI 177 Independent Studies (0-5)**

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 (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. 3 Lec. 1 Lab. CAS-D/LAB.

*Recommended prerequisites:* MBI 121, BIO/MBI 116. *Co-requisite:* CHM 231 or CHM 241.

**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* BIO/CHM.

**MBI 223 Bacteriophage Biology (1)**

Isolation and study of viruses that infect bacteria using general microbiology techniques together with electron microscopy and molecular biology methods.

*Co-requisite:* MBI 121 or BIO/MBI 115.

**MBI 256 Introduction to Programming for the Life Sciences (3)**

Introduction to programming for majors in the life sciences. The ability to write programs to perform tasks related to the organization and analysis of biological data has become a highly-valued skill for researchers in the life sciences, allowing wet-lab researchers to quickly process and sort through large amounts of data to find information relative to their own work. This course serves as an introduction to programming designed specifically for life science majors, targeting the specific skills and techniques commonly needed and explaining the fundamental methods of working with biological data while centering programming assignments around topics of interest to those studying the life sciences. Topics covered include basic programming techniques, representation and manipulation of genomic and protein sequence data, and the automated interface with BLAST and the NCBI GenBank database.

*Cross-listed with* BIO/CSE.

**MBI 277/377/477 Independent Studies (0-5)**

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. (MBI 477C is a Miami Plan Capstone with concurrent enrollment in MBI 490).

**MBI 333 Field Ecology (3)**

Experience in collection, analysis, and interpretation of ecological data. 1 Lec. 1 Lab. CAS-D/LAB.

*Prerequisite:* BIO 209. *Cross-listed with* BIO.

**MBI 340 Internship (0-20)**

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 or biology or permission of instructor.

**MBI 364 Molecular Techniques (2)**

Emphasizes techniques of modern molecular genetics, including gel electrophoresis, hybridization, gene cloning, polymerase chain reaction, quantitative gene analysis, drosophila genetics, DNA sequencing, STR analysis, protein fingerprinting, and Mutagenesis. Students cannot receive credit for both BIO/MBI 364 and MBI 465, or BIO 464.

*Prerequisites:* BIO 114 or BIO/MBI 116. *Co-requisite:* BIO 342. *Cross-listed with* BIO.

**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:* BIO/MBI 116 or BIO 114, and MBI 201. *Co-requisite:* CHM 231 or 241.

**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 Medical Bacteriology (4)**

Pathogenic bacteria, their identification, and mechanisms by which they cause disease. 3 Lec. 1 Lab.

*Prerequisites:* MBI 201 and either MBI 365 or BIO 203.

**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. 3 Lec. 1 Lab.

*Prerequisites:* MBI 365 or BIO 203, and CHM 242 or 332.

**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. 3 Lec. 1 Lab.

*Prerequisites:* MBI 365 or BIO 203, and CHM 242 or 332.

**MBI 424/524 Advanced Experimental Techniques in Structural and Functional Genomics (4)**

Theory and application of modern biological instrumentation and techniques. Basic and advanced skills including use, maintenance and calibration of biological instruments. Offered fall semester of even years.

*Prerequisites:* BIO 113 or BIO 114 or BIO/MBI 115 or BIO/MBI 116 or BIO 191 or MBI 201 or equivalent, CHM 141 and CHM 142 or equivalent, or permission of instructor. Cross-listed with BIO/CHM.

**MBI 425/525 Microbial Physiology (4)**

Biochemical activities of microorganisms as revealed by their cellular physiology. 3 Lec. 1 Lab.

*Prerequisites:* MBI 201 and either CHM 242 or 332.

**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. 2 Lec. 1 Lab.

*Prerequisite:* BIO/MBI 116 or BIO 114, or MBI 201 or permission of instructor.

**MBI 440 Research Problems (1-4; maximum 4)**

Library research. Open to senior majors.

*Prerequisite:* 20 hours of microbiology and permission of instructor. (MBI 440C is a Miami Plan Capstone with concurrent enrollment in MBI 490)

**MBI 445/545 Microbial Genetics (3)**

Genetic changes that occur in bacteria and bacterial viruses and resulting changes in their biochemical and physiological activities.

*Prerequisite:* MBI 202 or MBI 365.

**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.

*Prerequisites:* MBI 365 or both BIO 203 and BIO 342, or permission of instructor.

**MBI 465/565 Microbial and Molecular Genetics Laboratory (2)**

Laboratory methodology associated with experimental aspects of microbial genetics and recombinant DNA techniques.

*Prerequisite:* BIO 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 BIO/MBI 116, or BIO 342, or permission of instructor. Cross-listed with BIO/CHM/CSE.

**MBI 475/575 Microbial Ecology: Exploration of the Diverse Roles of Microorganisms in Earth's Ecology (4)**

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. Laboratory introduces research tools used in the study of microbial ecology. 3 Lec. 1 Lab.

*Prerequisites:* MBI 201 and either CHM 231 or 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. (MBI 480C is a Miami Plan Capstone in conjunction with MBI 490)

**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.

*Prerequisite:* BIO/MBI 116 or MBI 201 or BIO 342 or CHM 332 or CHM 433 or permission of instructor. Cross-listed with BIO 485/585, CSE 456/556.

**MBI 487, 488, 489 Medical 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. (MBI 490C is a Miami Plan Capstone in conjunction with MBI 440C or MBI 477C or MBI 480C).

*Prerequisite:* 20 hours of microbiology and senior status.

**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 201 or BIO 203; or permission of instructor.

**MBI 603 Cell Molecular and Structural Biology First Year Graduate Seminar (1)**

Introduction to methods of searching literature, preparation of audiovisual materials, preparation of grant applications and manuscripts, developing good presentation skills, and other aspects of the profession. Seminar for beginning graduate students in the Cell Molecular and Structural Biology Program.

Cross-listed with BIO/CHM.

**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 BIO.

**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 BIO.

**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. Summer only.

*Prerequisite:* primary or secondary school teacher with background in biological sciences.

**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. Summer only.

*Prerequisite:* primary or secondary school teacher with background in biological sciences.



**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. Summer only. Offered infrequently.

*Co-requisite: MBI 640.*

**MBI 650 Seminar in Molecular Biology (1)**

Discussion of current literature in molecular biology. Offered every semester.

*Prerequisite: graduate standing. Cross-listed with BIO/CHM.*

**MBI 671 Population and Community Ecology (3)**

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 BIO.*

**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 BIO.*

**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**

**750J Bioinformatics**

**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)**

give insight into the importance and practice of teamwork and tactics in real-world scenarios.

*Co-requisite MSC 121.*

**MSC 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: MSC 121, MSC 121L. Concurrent course: MSC 122L.*

**MSC 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: MSC 121, MSC 121L. Corequisite: MSC 122.*

**MSC 221 Individual Leadership (3)**

Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Aspects of personal motivation and team building are practiced planning, executing and assessing team exercises. The focus continues to build on developing knowledge of the leadership attributes and core leader competencies through the understanding of Army rank, structure, and duties as well as broadening knowledge of land navigation and squad tactics. Case studies will provide a tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment. (Open enrollment for all students, with no military obligation).

*Concurrent course: MSC 221L.*

**MSC 221L Leadership Lab (1)**

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. MSC 221L provides a smooth transition into MSC 321. 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. (Open enrollment for all students with no military obligation).

*Concurrent course: MSC 221.*

**MSC 222L Leadership Lab (1)**

Emphasizes the functions, duties, and responsibilities of junior Army Officers with special attention focused on to developing advanced leadership potential, and developing personal communications (oral and written) skills, and to active participation in the planning and conduct of training.

**MSC 222 Individual Leadership Part II (3)**

Second part of a two-semester introduction to organizational leadership. It is designed to help you understand how to build teams, influence others, communicate effectively, make decisions, engage in creative problem solving, and plan and organize. This semester's emphasis is on individual-level leadership. (Open enrollment for all students, with no military obligation).

**MSC 320 Tactical Problems Seminar (1; maximum 2)**

Introduction to and discussion of land navigation and tactical route planning.

**MSC 321 Advanced Tactical Leadership Part I (3)**

This is 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.

## MILITARY SCIENCE COURSES (MSC Arts and Science)

**MSC 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).

*Concurrent course: MSC 121L.*

**MSC 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



Successful completion of this course will help prepare you for success at the ROTC Leader Development and Assessment Course (LDAC).

*Concurrent course: MSC 321L.*

### **MSC 321L Leadership Lab MS 301 (1)**

This lab prepares you for attendance at the Leadership Development and Assessment Course (LDAC) during the summer following completion of NSC 322 and 322L. During the conduct of this lab you will be challenged to practice and hone your leadership technique. You will be evaluated on your leadership skills as you are presented with the demands of LDAC in a series of challenging scenarios related to small unit tactical operations are used to develop self-awareness and critical thinking skills. You will receive systematic and critical feedback on your leadership abilities.

*Concurrent course: MSC 321.*

### **MSC 322 Advanced Tactical Leadership Part II (3)**

Part two of the required courses to prepare the student for attendance at the Leadership Development Assessment Course (LDAC). Students will be challenged to study, practice, and evaluate adaptive leadership skills as you are presented with the demands of LDAC. Challenging scenarios related to small unit tactical operations are used to develop self-awareness and critical thinking skills. You will receive systematic and specific feedback on your leadership ability.

*Concurrent course: MSC 322L.*

### **MSC 322L Leadership Lab (1)**

A continuation of MSC 321L that prepares you for attendance at the Leadership Development and Assessment Course (LDAC). The cadet will attend LDAC during the summer following the completion of this lab. During the conduct of this lab you will be challenged to practice and hone your leadership technique. You will be evaluated on your leadership skills as you are presented with the demands of LDAC in a series of challenging scenarios related to small unit tactical operations are used to develop self-awareness and critical thinking skills. You will receive systematic and specific feedback on your leadership abilities.

*Concurrent course: MSC 322.*

### **MSC 421 Adaptive Leadership (3)**

A practical application of adaptive leadership. Throughout the semester, students are assigned the duties and responsibilities of an Army staff officer and must apply the fundamentals of principles of training, the training management, the Army writing style and military decision making to weekly training meetings. During these weekly training meetings, the student will plan, execute and assess ROTC training and recruiting events.

*Concurrent course: MSC 421L.*

### **MSC 421L Leadership Lab (1)**

Prepares the future officer to take charge and perform duties as a small unit leader. Cadets will plan, supervise and execute the training for the underclassmen under the supervision of cadre. Cadets will also apply their experience gained from their attendance at the Leadership Development and Assessment Course and pass that unique knowledge on to underclassmen in order to prepare them for LDAC.

*Concurrent course: MSC 421.*

### **MSC 422 Leadership in a Complex World (3)**

Explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). You will examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. You also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support. It uses case studies, scenarios, and "What Now, Lieutenant?" exercises to prepare you to face the complex ethical and practical demands of leading as a commissioned officer in the United States Army.

*Concurrent course: MSC 422L.*

### **MSC 422L Leadership Lab (1)**

Continues to prepare the future officer to take charge and perform duties as a small unit leader. Cadets will plan, supervise and execute the training for the underclassmen under the supervision of cadre. Cadets will also apply their experience gained from their attendance at the Leadership Development and Assessment Course and pass that unique knowledge on to underclassmen in order to prepare them for LDAC.

*Concurrent course: MSC 422.*

## **MUSIC COURSES (MUS Creative Arts)**

### **Note:**

1. The following music history and literature courses require a reading knowledge of music: 211-212, 405, 427, 457-458, 461, 481-482, 505, 527, 557-558, 561, 621, 661.

2. Applied music courses are listed at the end of this section.

### **MUS 100 Ensembles (0 or 1; may be repeated for credit)**

#### **MUS 100A Collegiate Chorale (0 or 1)**

Mixed chorus of 75 to 125 voices. May be repeated for credit.

#### **MUS 100B Men's Glee Club (0 or 1)**

Membership: 75. May be repeated for credit.

#### **MUS 100C Symphony Orchestra (0 or 1)**

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 (0 or 1)**

Women's chorus. Membership: 80. May be repeated for credit.

#### **MUS 100E Marching Band (0 or 1)**

Membership: 200 wind and percussion players. May be repeated for credit.

#### **MUS 100F Symphony Band (0 or 1)**

Membership: 72 wind and percussion players. May be repeated for credit.

#### **MUS 100G Wind Ensemble (0 or 1)**

Membership: 55 wind and percussion players. May be repeated for credit.

#### **MUS 100H Chamber Music - Brass (0 or 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 (0 or 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 (0 or 1)**

#### **MUS 100K Jazz Ensemble (0 or 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 100M Percussion Ensemble (0 or 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 Band (0 or 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 100P Chamber Orchestra (0 or 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 (0 or 1)**

Chamber choir; 20-25 mixed voices. Auditions open to all students. May be repeated for credit.

#### **MUS 100R Chamber Music Winds - Jazz (0 or 1)**

#### **MUS 100S Cello Choir (0 or 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/Hockey Band (0 or 1)**

Open to all students. Ensemble performs for on-campus basketball activities.

**MUS 100Y Marching Band Auxiliaries (0 or 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 (0 or 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 101/102 Theory of Music (3, 3)**

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. May be repeated for credit. Fulfills either accompanying requirement or large ensemble requirement in a single semester, but not both.

**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 115 Beginning Piano for Non-Majors (2)**

Beginning level group piano instruction for non-music majors. The course introduces and develops basic piano skills, music reading skills, as well as music theory fundamentals through repertoire, scale, and chord playing.

**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 119 Introduction to Music Theory (3)**

An introductory course for students who are not yet familiar with the symbols and language of music literacy: this includes rhythm, melody, harmony, and basic keyboard skills. The students will learn how to read and write music through instruction, daily assignments, group and individual sight-singing and ear training exercises, and finally the practice of playing basic melodic and harmonic progressions on the keyboard.

**MUS 120 Instrumental Accompanying (1)**

Practical experience in studio accompanying of solo instruments: woodwinds, brass, or strings. May be repeated for credit. Fulfills either accompanying requirement or large ensemble requirement in a single semester, but not both.

**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, IIB, Cul, H.

*Cross-listed with AMS.*

**MUS 139 Chamber Music Experience (0)**

Completion of a chamber music experience.

**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 approved arts events per semester.

**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 (3)**

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) MPF**

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. IIA.

**MUS 184 Opera: Passport to the Liberal Arts (3)**

This course focuses on opera as the "total art work", encompassing history, art, literature, theatre, business and traces the course of opera's history from its roots in ancient Greek drama to the present day. Framed in the context of Italy as the self-proclaimed birthplace of opera, the course addresses how the passion for this art form has spread through and united European cultures. Students will learn to appreciate the art form by studying selected operas and attending an opera at Miami University, with an optional trip to Chicago to see an opera live at the Chicago Lyric Opera. IIA, IIB, Cul.

**MUS 185 The Diverse Worlds of Music (3) MPF**

An investigation of music as it exists in diverse areas around the world. The approach will be ethnomusicological, best defined as an exploration of music and its relationship to human culture. IIA, IIB, IIBB, Cul, H. CAS-B.

**MUS 186 Global Music for the I-Pod (3)**

This course is a survey of popular music throughout the world, asking the question: What do people listen to on their I-Pods? Through the study of specific cultures and repertoires, students will explore and engage in popular music in various cultural contexts in the United States, Europe, Asia, Africa and Latin America. The goal is to give students a broad understanding of what exactly is popular music, how it can be defined, and the differences and similarities amongst diverse popular music traditions. IIA, IIB, IIBB, Cul.

**MUS 188 The Music of Russia (3) MPF**

Explores the music of a specific country as it develops and changes along with its society. The course will discuss the 19th and 20th Century masters of Russian music as well as the influence of film music, popular music, and jazz on contemporary Russian music and culture. IIA. Offered infrequently.

**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 (3, 3)**

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. IIB, IIBB, Cul.

*Cross-listed with BWS/FST/LAS/POR.*

**MUS 211/212 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. (211: IIA, Cul, H).

*Prerequisite: MUS 201/202 or permission of instructor.*

**MUS 215 Class Voice for Music Theatre (2)**

Study of basic principles of singing, including posture, breath control, vocal freedom, resonance, and diction designed to prepare for private study. Class approach combines lecture with group and individual singing. Semester repertoire is at the discretion of the

instructor and includes a minimum of three songs (memorized). Students are required to give a jury for the voice faculty as a part of semester evaluation.

*Prerequisite: admission in the Music Theatre minor.*

**MUS 216 Applied Voice for Music Theatre (1; maximum 2)**

Study of principles of singing, including posture, breath control, vocal freedom, resonance, and diction. Semester repertoire is at the discretion of the instructor and includes a minimum of five songs (memorized). Students are required to give a jury for the voice faculty as a part of semester evaluation.

*Prerequisite: MUS 215.*

**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.

**MUS 218A Intermediate Guitar (1)**

Requires a solid base of technique. The course introduces note reading, finger-picking and bar chords.

**MUS 221 Music Technologies (3)**

Introduces students to the fundamentals of music technology in the context of its historical and cultural use. Scientific foundations of acoustics, digital audio, and audio engineering as well as technical skills for music production and notation will be addressed. Participants will learn the skills-based foundations of music technology through hands-on projects. Critical discussion will consider the social impact of contemporary and historical systems of recording, notation, and dissemination. Applications in the fields of interaction design, music entertainment, game design, digital signal processing, electrical engineering, music education, acoustics, and mass communications will be explored. IIA, V.

*Cross-listed with IMS.*

**MUS 222 Music Education Technology (1)**

This is a project-based course designed to develop knowledge and skills in the use of technology in the music classroom, including: productivity and utility software, computer assisted instruction, and presentation technologies. Principles of learning theory and instructional design theory will be applied to the development of instructional units in music education. Legal and ethical issues in technology use (notably copyright law) will also be explored. Must be taken concurrently with MUS 221 (Music Technologies). Open only to music education majors.

**MUS 225 And the Beat Goes On... The History of Rock and Roll (3)**

This survey of Rock and Roll examines the roles the genre has played in the American imagination since the 1950s, and the perception and reception of the genre through time. It focuses on the ways that Rock fits into the narratives on American culture, gender and race, examining this music through the lens of politics, aesthetics, and society. The course progresses through the changing landscape of Rock from its roots in American popular culture in the early 20th century, continuing to the present day. The discussion continues through Metal and Hard Rock, to punk and disco, and much more. Students will learn to identify the formal, harmonic, rhythmic and textual characteristics that distinguish Rock subgenres. Through readings, films, demonstrations, class discussions and activities, and a great deal of music, this course explores the history of Rock and Roll, placing in context the musical, political and social forces that shaped its evolution and revolution.

**MUS 226 Improving Reading through the Music Content Area (3)**

This course provides pre-service music teachers with reading and writing strategies to help solve problems encountered in grades K-12. Language Art skills and strategies are taught to help students communicate more effectively across the curriculum, addressing the Common Core. Required for all students in the Bachelor of Music curriculum in music education (Instrumental and Choral/General emphases).

**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. Even-numbered Spring Semesters only.

*Prerequisite: MUS 235.*

**MUS 249 Classroom Instruments: World Percussion/Guitar (1)**

Development of necessary expertise to use guitar and percussion instruments in choral and general music classes. Even-numbered Spring Semesters only.

**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 262 Jazz Improvisation! (1)**

Study of the basic principles of instrumental improvisation in jazz, including developing a melodic idea in real time, chord notation, chord/scale relationships, and solo transcription.

*Prerequisite: MUS 101 or 119.*

**MUS 266 Music for Young Children (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) MPT**

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.

*Prerequisite(s): MUS/AMS 135 or MUS 185. Cross-listed with AMS.*

**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. IIA, IIB, Cul.

*Prerequisite: MUS 135, 185 or 189; or permission of instructor. Cross-listed with WGS.*

**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.  
*Cross-listed with IMS 304.*

**MUS 345 Elementary General Music for Instrumental Music Education Majors (1)**

Introduction to music teaching techniques appropriate for effective teaching of general music at early childhood and elementary levels.

**MUS 351 Choral Techniques (3)**

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 Conducting I (2)**

Principles of baton technique, instrumental transpositions, study of musical factors involved in leading instrumental and choral ensembles, and score study.  
*Prerequisite:* completion of all first- and second-year music courses.

**MUS 354 Conducting II (2)**

Continuation and refinement of conducting technique, score study, and rehearsal technique, utilizing repertoire appropriate to secondary school ensembles.  
*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 (2)**

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 370 Orchestration (3)**

An introduction to the technique of scoring for a variety of instruments and instrumental combinations. Students will learn instrument ranges and transpositions, timbre qualities, idiomatic writing, and arranging for ensembles of varying sizes. Involves analyses of works from various eras of instrumental music and exercises in scoring technique for individual instruments and ensembles. The role of extended techniques in contemporary practice will be highlighted. These techniques will be presented during class discussions and incorporated in written exercises.  
*Prerequisite:* MUS 202.

**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 401/501 Advanced Studies in Music Theory (3)**

Topics-oriented course in music theory. For the advanced undergraduate with a strong background in music theory or as an elective for the music graduate student. May be repeated providing the repetition covers a different subject area. Sample topics: History of Theory, Theory Pedagogy, 16th Century Vocal Counterpoint, Larger Contrapuntal Forms of the 18th Century.  
*Prerequisite:* MUS 252, 302.

**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 211/212, or junior standing and permission of instructor.

**MUS 415/515 You Say You Want a Revolution: Rock and Roll and the Cultural Revolution of the 1960s (3)**

This course focuses on the cultural revolution of the 1960s through the prism of Rock and Roll. It looks at the earliest history of Rock and the musical and cultural forces that led to its development, from the black-oriented R&B style of the 1950s to the many manifestations of Rock culture in the 1960s. It investigates at Rock as a force of change in the prevailing cultural paradigm, embracing the elements of a cultural revolution. Through readings, films, interviews, demonstrations, class discussions and activities, and lots and lots of music, this course explores Rock in the 1960s as a cultural phenomenon and a vehicle for social change, placing in context the musical, political and social forces that shaped its evolution and revolution.

**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 GPA of 2.50 or a GPA of 2.75 in all music courses counting only one ensemble per semester.

**MUS 420/520 Vocal Coaching (1)**

Preparation of solo vocal repertoire.  
*Prerequisite:* permission of instructor.

**MUS 422/522 Professional Growth in Orff-Schulwerk (1)**

This course is designed students in the Bachelor of Music or Master of Music curriculum in music education, as well as area music teachers seeking graduate credit for professional development. The Orff-Schulwerk approach for teaching music to children is experienced through participation in four workshops featuring national and local clinicians who specialize in this pedagogy.

**MUS 425/525 Grand Night: The Great American Songbook (1)**

This course is designed to introduce the student to performance skills needed for success in popular vocal repertoire. Students will learn through staging, score preparation, movement, and instruction in popular musical style. Students will employ an integration of these learned skills through performance.

**MUS 426/526 Opera Production (0-1)**

Participation in a public production of an opera or opera scenes.  
*Prerequisite:* 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. Even-numbered Spring semesters only.

**MUS 433/533 String Instrument Pedagogy (1)**

Fundamental problems involved in teaching string instruments. Critical analysis of teaching materials. Observation and practice in private teaching required of all string majors. Even-numbered Spring Semesters only.

*Prerequisite: senior standing in applied music.*

**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. MUS 451/551 - Odd-numbered Fall Semesters only. MUS 452/552 - Even-numbered Spring Semesters only.

*Prerequisite: MUS 251-252.*

**MUS 454/554 Guitar Repertory and Pedagogy (2)**

This course is designed for students in the Bachelor of Music and Master of Music curriculum in guitar performance, as well as guitar majors in the B.A. and Music Education curricula. It explores guitar repertory, examining the most important composers and pieces for the instrument, in solo, chamber and orchestral contexts. It also examines current teaching methods and materials for the guitar.

**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. MUS 457/557 - Even-numbered Fall Semesters only. MUS 458/558 - Odd-numbered Spring Semesters only.

*Undergraduate prerequisite: MUS 189 and 202. Graduate prerequisite: MUS 302 and 312 or equivalent.*

**MUS 460/560 Methodologies in Ethnomusicology (3) MPC**

This course is dedicated to the study of the diversity of ways the world's peoples make and study music. The course provides an introduction to the discipline of ethnomusicology, offering an overview of its development and concentrating on methods, from fieldwork and interviewing through researching and writing. It will include an exploration of many musical genres, while at the same time exposing students to cultural, historical, and music theoretical approaches to the study of performance, composition, improvisation, and other practices. The ability to read music is not required.

**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. Offered infrequently.

*Prerequisite: MUS 301, 371-372.*

**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. Fall semester only.

*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 upper-class, 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 493 Capstone/Senior Recital: Preparation (3) MPC**

Preparation for 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. Perform all or part of the prepared recital in a venue outside the university setting.

*Co-requisite: MUS 442 or 444.*

**MUS 494 Senior Recital (0)**

Performance of senior degree recital.

*Prerequisite: MUS 493.*

**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 (0 or 1; 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 (0 or 1)**

Mixed chorus of 75 to 125 voices. Audition not required. May be repeated for credit.

**MUS 630B Men's Glee Club (0 or 1)**

Membership: 75. May be repeated for credit.

**MUS 630C Symphony Orchestra (0 or 1)**

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 (0 or 1)**

Women's chorus. Membership: 80. May be repeated for credit.

**MUS 630E Marching Band (0 or 1)**

Membership: 200 wind and percussion players. May be repeated for credit.

**MUS 630F Symphony Band (0 or 1)**

Membership: 72 wind and percussion players. May be repeated for credit.

**MUS 630G Wind Ensemble (0 or 1)**

Membership: 55 wind and percussion players. May be repeated for credit.

**MUS 630H Chamber Music Brass (0 or 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 (0 or 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 (0 or 1)****MUS 630K Jazz Ensemble (0 or 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 630M Percussion Ensemble (0 or 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 Band (0 or 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 630P Chamber Orchestra (0 or 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 630Q Chamber Singers (0 or 1)**

Chamber choir; 20-25 mixed voices. Auditions open to all students. May be repeated for credit.

**MUS 630R Chamber Winds (0 or 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. Offered infrequently.

*Prerequisite: approval of graduate music faculty.*

**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. Students 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, 342, 442, 642 and receive 2 credits.

Applied music course numbers designate level of instruction (freshman through senior, and graduate). The first digit of each number shows the level of instruction. 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.

## Voice

**MUS 142A/144A Applied Music Voice- FR**

Study of basic principles of singing, including posture, breath control, vocal freedom, resonance, and diction. Fall semester repertoire is at the discretion of the instructor. Spring 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 Voice- SO**

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 Voice- JR**

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 242A or 244A and successful completion of junior-standing examination.*

**MUS 442A/444A Applied Music Voice- SR**

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 Piano- FR**

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 Piano- SO**

More advanced level study of materials, including technical exercises and repertory classifications in 142B and 144B; 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 Piano- JR**

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 Piano- SR**

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.

## Guitar

### MUS 142C/144C Applied Guitar - FR

Applied guitar is the study of the classical guitar, in which the student applies the study of technique and literature to music from all periods.

### MUS 242C/244C Applied Guitar - SO

Applied guitar is the study of the classical guitar, in which the student applies the study of technique and literature to music from all periods.

### MUS 342C/344C Applied Guitar - JR

Applied guitar is the study of the classical guitar, in which the student applies the study of technique and literature to music from all periods.

### MUS 442C/444C Applied Guitar - SR

Applied guitar is the study of the classical guitar, in which the student applies the study of technique and literature to music from all periods.

## Flute

### MUS 142D/144D Applied Music Flute- FR

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 Flute- SO

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 Flute- JR

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 Flute- SR

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, Prokofiev 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 Clarinet- FR

Technical studies as needed: embouchure, breath control, hand and finger position, articulation, intonation, phrasing. Scales Studies Baermann Bk. III, Etudes from Rose, Klose Celebrated Method. Works by Weber, Mozart, Stamitz, St-Sans, Tartini, Brahms, Hindemith, and others. Reed work. All scales.

### MUS 242E/244E Applied Music Clarinet- SO

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 Clarinet- JR

Jeanjean Etudes, Cavallini 30 Caprices. Works by Spohr, Stravinsky, Debussy, Rossini, Bernstein, Poulenc, or equivalent. Orchestral excerpts. Transposition.

### MUS 442E/444E Applied Music Clarinet- SR

Emphasis on repertoire. Works by Copland, Berg, Verdi, Manevich, Francaix, Nielsen, or equivalent. Contemporary techniques. Orchestral excerpts. Clarinet with electronics. Senior recital.

## Saxophone

### MUS 142F/144F Applied Music Saxophone- FR

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 Saxophone- SO

Mule Etudes after Terschak and after Ferling. Pieces by Handel, Ibert, Glazounov, etc. Technical exercises.

### MUS 342F/344F Applied Music Saxophone- JR

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 Saxophone- SR

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 Oboe- FR

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 Oboe- SO

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 Oboe- JR

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 Oboe- SR

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 Bassoon- FR

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 Bassoon- SO

Continuation of technical studies and basic elements of playing. Ferling 48 Famous Studies, Vivaldi Concerto in D, Handel Sonatas.

### MUS 342H/344H Applied Music Bassoon- JR

Piari 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 Bassoon- SR

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 Trumpet- FR

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 tonguing as in Arban, Complete Method for Trumpet.

### MUS 242I/244I Applied Music Trumpet- SO

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 Trumpet- JR**

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 Trumpet- SR**

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 French Horn- FR**

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 French Horn- SO**

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 French Horn- JR**

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 French Horn- SR**

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 Trombone- FR**

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 Trombone- SO**

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 Trombone- JR**

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 Trombone- SR**

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 Euphonium- FR**

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 Euphonium- SO**

Continuation of above studies. Example: Rochut Melodious Etudes, Kopprasch 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 342I/344I Applied Music Euphonium- JR**

Continuation of above studies. Example: Handel aria con Variazioni, Schlossberg Daily Drills and Technical Studies, Cimera Concerto, Ropartz Andante and Allegro.

#### **MUS 442I/444I Applied Music Euphonium- SR**

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 Tuba- FR**

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 Tuba- SO**

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 Tuba- JR**

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 Tuba- SR**

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 Percussion- FR**

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 Percussion- SO**

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 Friesse. 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 Percussion- JR**

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, Finger, Carter, and others.

#### **MUS 442N/444N Applied Music Percussion- SR**

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 Violin- FR**

Technical facility in scales, arpeggios, and violin studies. Sonatas and concerti of the baroque, classical, or romantic repertoire.



**MUS 242O/244O Applied Music Violin- SO**

Violin studies. Baroque, classical, and romantic concerti and sonatas, and other solo compositions.

**MUS 342O/344O Applied Music Violin- JR**

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 Violin- SR**

Advanced technical studies. Preparation of senior recital including composition of all major styles.

**Viola****MUS 142P/144P Applied Music Viola- FR**

Scales in three octaves, arpeggios. Etudes: Sevcik (bowing), Mazas, Kayser, position studies. Repertoire level: Bach, Solo Suite, G Major, Hoffmeister, Telemann, Zelter, Concerto, Marcello, Sonatas.

**MUS 242P/244P Applied Music Viola- SO**

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 Viola- JR**

Etudes: Kreutzer, Sevcik, op. 8, Campagnoli. Repertoire level: Bloch, Suite Habraique, Bach, Gamba Sonatas, Reger, Suites.

**MUS 442P/444P Applied Music Scales Viola- SR**

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 Cello- FR**

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 Cello- SO**

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 Cello- JR**

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 Cello- SR**

Advanced studies. Compositions of all major periods. Contemporary performance practices. Orchestral and chamber music studies.

**String Bass****MUS 142S/144S Applied Music String Bass- FR**

Technical facility in scales, arpeggios. Studies: sonatas, concerti, and solo pieces of baroque, classical, and romantic repertoire. Orchestral repertoire.

**MUS 242S/244S Applied Music String Bass- SO**

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 String Bass- JR**

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 String Bass- SR**

Advanced studies. Compositions of all major periods. Contemporary performance practices. Orchestral and chamber music studies.

**Harp****MUS 142T/144T Applied Music Harp- FR**

Technical studies and etudes such as Salzedo Conditioning Exercises, Bochs 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 Harp- SO**

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 Harp- JR**

Continuation of technical studies and etudes. Dussek Sonata in C Minor, Handel-Salzedo Harmonious Blacksmith, Debussy Danes Sacree et Profane. Preparation for junior recital.

**MUS 442T/444T Applied Music Harp- SR**

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.

## 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 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 (3)**

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, navigation rules, piloting procedures, associated equipment and publications, basic maneuvering boards, 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. This is not a dedicated history class however, the use of battlefield and historical studies is

integral to understanding how warfare has developed throughout time.

**NSC 320 Tactical Problems Seminar (1; maximum 2)**

Provides the student with a basic understanding and knowledge required to successfully navigate over unfamiliar terrain, lead a patrol, and make tactical decisions in a timely manner.

**NSC 330 Land Navigation and Patrolling (1)**

Provides the student with a basic understanding and knowledge required to successfully navigate over unfamiliar terrain, and lead a patrol.

**NSC 402 Leadership and Ethics (3) MPC**

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 Warfare throughout time. This is not a dedicated history class however, the use of battlefield and historical studies is integral in understanding how amphibious operations have developed and how amphibious operations adhere to the principles and fundamentals of warfare.

## 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 a baccalaureate nursing student (BSN program).

**NSG 252 Foundations of Professional Nursing (3)**

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:* sophomore standing as a baccalaureate nursing student (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:* sophomore standing as a baccalaureate nursing student (BSN program).

**NSG 263 Community Health Nursing (3)**

Develop nursing skills in assessment, program planning and interventions to promote the health of communities and vulnerable populations. Builds a foundation for designing nursing strategies for individuals, families and populations by integrating health promotion and disease prevention concepts, nursing and public health theory.

**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).

**NSG 302 Intermediate Clinical Nursing Practicum (3)**

This elective course is offered in early summer to provide nursing students with a concentrated clinical opportunity at a local health care facility to improve their confidence and abilities to plan, implement and evaluate their nursing care. During this unique clinical experience students care for a group of clients over several consecutive days which enhances their nursing process skills. Typically the students have the same nurse mentor thus fostering better collegial and interdisciplinary relationships. The faculty member has the opportunity to evaluate the student in more depth for application of knowledge, selection of priorities and consistency of care.

*Prerequisite:* NSG 261 and 262. (Elective for BSN)

**NSG 305 Cultural Perspectives in Healthcare (3-6; maximum 6)**

Provides students with the opportunity to explore the culture of two tribal communities in northeast Oklahoma and their historical and contemporary practices related to health. Through immersion in these communities, students will collaborate with tribal representatives to provide care that is holistic in nature, culturally congruent, and based upon the evidence. Students will work with tribal representatives to assess the health needs of the members and develop, implement, and evaluate interventions specific to the cultural health needs of this diverse population.

*Prerequisite:* 3 credit social science course.

**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. (Required for RN-BSN program, elective for BSN)

**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. (Required for RN-BSN program, elective for BSN)

**NSG 321 U. S. Health Care System and Culture (3)**

This course is designed to provide the student with an overview regarding factors that influence health care systems in the United States. A seminar/discussion format will be used to help students examine the culture of health care, various health care delivery systems, as well as roles of providers of care and key stakeholders. Students will also explore select contemporary and legal/ethical issues that arise in the evolving health care system.

*Prerequisite:* junior standing.

**NSG 331 Introduction to Nursing Research (3)**

Provides foundation for systematic study of nursing and health related problems using research process. Emphasis is placed on critiquing published studies, understanding the research process, using evidenced based literature 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 380S Grief and Mourning: A Global Perspective (3)**

The course focuses on the religious and cultural intersects of mourning losses. The use of healing rituals and symbols within the context of grief and mourning will be explored. The courses proposes to challenge the student to explore personal values and beliefs regarding death and to analyze the global rituals within the context of culture. (elective for BSN and RN-BSN program).

**NSG 382 Creativity, Creative Arts, Health and Aging (3)**

This course examines multiple perspectives on creativity, creative arts, health and aging including personal, cultural, theoretical and research perspectives. Students will explore the benefits of creativity for older adults, caregivers and communities, the health effects of engagement in creative arts programs, and the therapeutic elements common to existing creating arts programs for well, frail, and cognitively impaired older adults and caregivers. Students will engage in Service-Learning experiences involving local creative arts programs for older adults.

**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. (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.

*Prerequisite:* MBI 361. *Co-requisite:* NSG 431. (BSN and RN-BSN programs).

**NSG 431 Nursing Care of Aggregates: Families and Communities: Clinical (2)**

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 432 Population Focused Nursing Care Practicum (2)**

Students apply theory and principles of population-focused care to examine public health issues of vulnerable or disenfranchised populations. Using data, information technology and input from community members, students design, implement and evaluate evidence-based nursing interventions.

**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 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 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:* spring 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:* spring semester senior standing as a baccalaureate nursing student. (BSN program).

**NSG 492/592 Emotional and Behavioral Problems of Children and Adolescents (3)**

In this course the experiences of emotional and behavioral problems of children and adolescents are examined from multiple perspectives. The perspective of the child/adolescent as well as the child's family members and significant others in the environment, especially the school environment, are emphasized. Professional perspectives related to primary, secondary, and tertiary prevention are critically examined. Factors that enhance resilience to commonly occurring stressors experienced in childhood and adolescence are explored. (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. 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 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, H.

**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, H.

**PHL 106 Thought and Culture of India (3) 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 Introduction to Ethics (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, Cul.

**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 Philosophy of Art (3)**

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 245 Writing Philosophy (3)**

Provides philosophy majors with the reading, writing, and reasoning skills necessary for the successful presentation of philosophical ideas in written work, with writing oriented toward both specialized (philosophically experienced and disciplinarily appropriate) and non-specialized (non-philosophical) audiences. The course will have a rotating philosophical topic around which readings will be structured and will be writing intensive.

**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.

*Prerequisite: PHL 103, 104, 105, 131 or 221.*

**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.

*Prerequisite: PHL 103, 104, 105, 131 or 221.*

**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 (3)**

Inquiry into values and principles of government, justice and law, rights and responsibilities, freedom and power, violence and revolution.

**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 (3) 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 WGS.*

**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. 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 Medical Ethics (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.  
*Cross-listed with REL.*

**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. Offered infrequently.  
*Cross-listed with REL.*

## 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 420/520 Seminar in Twentieth Century Philosophy (4)**

Examination of one or more twentieth century philosophical figure (e.g., Heidegger, Wittgenstein, Foucault) and/or study of key philosophical issues of the twentieth century (such as being, language, power, action).

**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 two 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 two times.

**PHL 450/550 Seminar in Contemporary Philosophy (4)**

Examination of one or more contemporary philosophical figure or philosophical issue in any area of current philosophical research. 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 infrequently.

**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. Offered infrequently.  
*Prior completion of PHL 241 recommended.*

**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 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. Offered infrequently.  
*Prior completion of PHL 221 is recommended.*

**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. Offered alternate years.  
*Prerequisite: PHL 221 is recommended.*

**PHL 496/596 Epistemology (4)**

Analysis of such concepts as knowledge, belief, certainty, evidence, truth, perception. Offered alternate years.  
*Prior completion of PHL 221 recommended.*

**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 601 Practicum in Teaching Philosophy (2)**

Introduces graduate students to the pedagogy of philosophy by practicing and reflecting upon the fundamentals of grading, teaching, giving a lecture, directing a discussion group and preparing a syllabus as these activities specifically apply to the discipline.

**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 620 Advanced Topics in Philosophy (3-4; maximum 14)**

Advanced graduate level seminar in philosophy, may treat an individual philosopher, philosophical time period, or philosophical topic. Repeatable up to 4 times with different content.

**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 advisor 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. IVB, LAB. CAS-D/LAB.

*Prerequisite:* concurrent registration in or prior completion of PHY 101, 111, 118, 121, 131, or 141.

### 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. 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) MPF

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 104, 123, 125, 151 or 153, or equivalent are strongly encouraged.

### PHY 173 Physics Laboratory (1) MPF

Laboratory course for students enrolled in PHY 171. Fundamental experiments in mechanics, waves, and quantum mechanics. IVB. CAS-D.

*Co-requisite course:* PHY 171.

### PHY 174 Physics Laboratory (1) MPF

Laboratory course for students enrolled in PHY 172. Fundamental experiments in thermodynamics and electromagnetism. IVB. CAS-D.

*Prerequisite:* PHY 171. *Co-requisite:* course: PHY 172.

### 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 181F, 182F. IVB.

*Prerequisite or co-requisite:* MTH 151, 153, or equivalent. *Prerequisite:* (182) PHY 181. *Co-requisites:* PHY 183, 184.

### PHY 183/184 Physics Laboratory (1, 1) (PHY 184 is MPT.) MPF

Laboratory course for students enrolled in PHY 181, 182. Basic experiments in mechanics, statistical physics, and electromagnetism. IVB, LAB. CAS-D/LAB.

*Prerequisite or co-requisite:* PHY 181, 182.

### PHY 185/186 Experiencing The Physical World (1, 1)

An optional demonstration/ experiment/ modeling course designed to provide enrichment for students enrolled in PHY 181F or 182F.

## Advanced Physics Courses

### 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 281 Contemporary Physics I: Foundations (3) MPT

Third course in a sequence that begins with two semesters expounding the visions of Newton, Schrodinger, 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).

### PHY 282 Contemporary Physics II: Frontiers (3)

Designed for students in physics, engineering physics, and biological physics at the sophomore level; topics may be of interest to students in related disciplines. Explores and explains scientific principles and technological advances making quantum science and resulting technologies qualitatively and quantitatively different from the large scale. Covers enabling tools and techniques from atomic, molecular, condensed matter, and particle physics, as well as advances in nanotechnology, quantum optics, and biophysics.

*Prerequisite:* PHY 281.

### 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 292 Electronic Instrumentation (2) 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 282 Contemporary Physics II. 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. CAS-D/LAB.

*Prerequisite:* PHY 184. *Co-requisite:* PHY 282.

**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 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. Offered for credit/no-credit only.

*Prerequisite:* PHY 182 or equivalent or permission of faculty in charge.

**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 281, 292. Offered infrequently.

**PHY 421/521 Molecular and Cellular Biophysics (4)**

Introduction to physical phenomena acting on molecular and cellular size scales, including transport properties; thermodynamics and statistical mechanics of reactions; self-assembly; and fluctuations. Development of physical models for biological systems and phenomena, including cooperative behavior in macromolecules; enzyme activity; molecular motors and machines; energy transduction; and nerve transmission.

*Prerequisite:* PHY172 or 182, MTH 252, or permission of instructor.

**PHY 422/522 Physics for Medicine and Biology (4)**

Introduction to biophysical phenomena, especially on the cellular and tissue size scales, including materials and fluid mechanics; transport phenomena; and electromagnetic phenomena. Introduction to physical methods used in medicine and biology, including methods of signal and image analysis; use of tissue-light interactions; ultrasound, x-ray, and NMR imaging; and nuclear medicine.

*Prerequisites:* PHY 292, 294 and MTH 252.

**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 281, 293.

**PHY 427/527 Nano-scale Science and Technology (3)**

Designed for advanced undergraduate and graduate students in physics, chemistry, and engineering. Explains the scientific principles and the technological advantages that make nanoscience and technology qualitatively and quantitatively different from the large scale. Covers the enabling tools, the techniques, and the nano-materials that are involved in nanotechnology. Also, covers the potential impact of nanotechnology in human health, energy, manufacturing, and other aspects of life of a modern society. a weekly lab meeting gives hands-on experimental work to fabricate micro-structures in a Cleanroom facility.

*Prerequisite:* PHY 172 or 182. *Recommended prerequisites:* PHY 281 and 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)**

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:* PHY 483 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 281, 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 281. *Pre- or co-requisite:* PHY 483 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 and their applications. Teaches basics of physical and geometrical optics and atomic physics in detail to understand the design, operation, and application of lasers. Topics include gaussian beams, cavity design, rate equation models of laser gain media, different types of lasers, and nonlinear optics.

*Prerequisite:* PHY 281, 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 Schrodinger 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 281, 293, or permission of instructor. *Pre- or co-requisite:* PHY 483.

**PHY 451/551 Classical Mechanics (4)**

Mechanics, nonrelativistic and relativistic, of particles, systems of particles, and rigid bodies treated by Newtonian, Lagrangian, and Hamiltonian methods using vector and matrix analysis and calculus of variations.

*Pre- or co-requisite:* PHY 483 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 483 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.*

**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 281, 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 Spacetime (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:* PHY 483 or instructor permission.

**PHY 483/583 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 281; MTH 222, 252.

**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 281 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 and II (4, 3)**

Introduction to the quantum theory and its application to physical systems.

*Prerequisite:* PHY 281. Pre- or co-requisite: PHY 483, 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, superconductors, and nuclear methods.

*Prerequisite:* 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, harmonic generation and down-conversion, the cooling and trapping of atoms, and quantum information theory.

*Prerequisite:* 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. CAS-QL.

**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, IIB.

**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 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 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.

**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/CLS/ITS/HST/REL/RUS. IIB, Cul, H.

**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.

*Cross-listed with SOC.*

**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.*

**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.

*Prerequisite: POL 201.*

**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.

*Prerequisite: POL 201.*

**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. CAS-QL.

*Prerequisite: POL 261.*

**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.

*Prerequisite: permission of instructor and department chair.*

**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.

*Prerequisite: POL 221.*

**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.

*Prerequisite: POL 221.*

**POL 331 Communism and Soviet Politics, 1917-1991 (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.

*Prerequisite: POL 221.*

**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 221.*

**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.

*Prerequisite: POL 221.*

**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.

*Prerequisite: POL 221.*

**POL 335 Politics of East Asia (4)**

Comparative analysis of politics of nation building 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.

*Prerequisite: POL 221.*

**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.

*Prerequisite: POL 221.*

**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.

*Prerequisite: POL 221.*

**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.

*Prerequisite: POL 221. Cross-listed with BWS 339.*

**POL 339 Nationalism, Islam and Democracy in Arab 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.

*Prerequisite: POL 221.*

**POL 340 Internship (0-20, 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 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.

*Prerequisite: POL 241.*

**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.

*Prerequisite: POL 241.*

**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.

*Prerequisite: POL 241.*

**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.

*Prerequisite: POL 221. Cross-listed with WGS 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.

*Prerequisite: POL 241. Cross-listed with WGS. 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.

*Prerequisite: POL 241.*

**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.

*Prerequisite: POL 241.*

**POL 353 Constitutional Rights and Liberties (4) MPT**

Leading cases and related materials on the Bill of Rights and 14th Amendment.

*Prerequisite:* POL 241.

**POL 355 Public Opinion (3)**

The nature of public opinion, how is it measured, its origins, and its consequences.

*Prerequisite:* POL 241.

**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.

*Prerequisite:* POL 241.

**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.

*Prerequisite:* POL 241.

**POL 358 Political Parties in American Politics (3)**

Political parties are integral to democracy. Without parties in government, chaotic voting would prevail within Congress, extreme interest groups would enjoy disproportionate influence, and accountability for failed public policies would be almost impossible to establish. Without parties in the electoral arena, many citizens would have little information about political candidates or issues, voter turnout would be lower, incumbency advantage would be greater than it already is, and there would be no clear framework for debates concerning different public policy proposals. In short, parties are essential to the health of democracy. That being said, at times parties also impede representation, stall political change, and adversely impact minority groups in society. In this course, we will evaluate the benefits and costs associated with party-based politics in the United States, examine how parties have evolved overtime, and assess how changes in the party system may impact the health of democracy in the future.

*Prerequisite:* POL 241.

**POL 359 U.S. Campaigns and Elections (3)**

This course is an introduction to the processes and impact of political campaigns. Our primary goal over the next several weeks is to systematically examine elections in the United States. We will act as social science researchers to answer some interesting questions: What is the role of voters, campaigns and elections in a democracy? Why are campaigns and elections important in a democracy? We will examine in detail how voters decide to choose a representative. We will examine election campaigns, focusing specifically on whether campaigns matter, how they can be studied systematically, and how candidates strategize in modern elections.

*Prerequisite:* POL 241.

**POL 362 Public Management, Leadership, and Administrative Politics (3)**

Study of contemporary public management and leadership in government, and the political economy of public sector agencies. Emphasis on the politics and economics of administrative reform, innovation, and policy management in public sector organizations including the dynamics of bureaucratic decision making and administrative behavior at the micro and macro levels of analysis.

*Prerequisite:* POL 241 or 261.

**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.

*Prerequisite:* POL 241 or 261.

**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.

*Prerequisite:* POL 241 or 261.

**POL 368 State and Local Government and Politics (4)**

Introduction to the study of state and local government and politics with special emphasis on Ohio government and politics. Topics include state/local government fiscal relations, issues of service delivery among state, county, city, village, and township governments, and the political economy of state and local revenues

and expenditures. Examines American federalism as it impacts sub-national government and politics including inter-state and substate regionalism and political actors--legislative, gubernatorial, and judicial - that affect state and local politics, as well as specific policy issues (e.g., education, economic development, and public safety).

*Prerequisite:* POL 201 or 241 or 261.

**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.

*Prerequisite:* POL 271.

**POL 374 Foreign Policy Analysis (3) MPT**

Study of foreign policy analysis as a subdiscipline of political science, including the study of foreign policy making and implementation at the individual, domestic and international system levels of analysis.

*Prerequisite:* POL 271.

**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.

*Prerequisite:* POL 271 or 335.

**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.

*Prerequisite:* POL 271.

**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.

*Prerequisite:* POL 221 or 271.

**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.

*Prerequisite:* POL 271.

**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.

*Prerequisite:* POL 271.

**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.

*Prerequisite:* POL 271.

**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.

*Prerequisite:* POL 271.

**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.

*Prerequisites:* POL 261, 306, and senior standing or permission of instructor. *Co-requisite:* POL 466 required.

**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.

*Prerequisite:* (411) POL 201.

**POL 419/519 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.

*Prerequisite:* open to seniors.

**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.

*Prerequisite:* (423) POL 221.

**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/JRN.

**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.

*Prerequisite:* permission of instructor. Concurrent course(s): JRN/MAC/POL 454; 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

430C The Rule of Law

430D Political Systems of Asia

*Prerequisite:* POL 221.

**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:* (436) 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:* (438) POL 338 or permission of instructor. Cross-listed with BWS.

**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 or permission of instructor.

**POL 440/540 Havighurst Colloquium (3)**

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 3 hours counting towards graduation.

Cross-listed with ATH 436/536, GEO 410D/510D, HST 436/536, REL 470A/570A, and RUS 436/536.

**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.

*Cross-listed with MAC/JRN.*

**POL 459/559 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:* (459) senior standing or permission of instructor.

**POL 459A/559A American Political Culture MPC****POL 459B/559B American Political Development MPC****POL 459C/559C American Democracy Reconsidered MPC****POL 459D/559D Governing the Nation from Washington MPC****POL 459E/559E The American Agenda MPC****POL 459F/559F Governing States and Communities MPC****POL 459G/559G Practical Politics in the U.S. MPC****POL 459/559I Constitutional Politics in the U.S. MPC****POL 459J/559J Citizen 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.

*Prerequisites:* POL 261, 306, and senior standing or permission of instructor. Co-requisite: POL 406 required.

**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.

*Prerequisite:* (467) POL 261.

**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 POL 468/568.

*Prerequisite:* (468) POL 261.

**POL 470 Seminar on International Relations (4; maximum 8)**

Readings, research, reports, and discussion on selected topics and problems.

470C International Law and Organization.

*Prerequisite:* POL 271.

**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:* senior standing or permission of instructor.

**POL 482/582 Russian, Eastern European and Eurasian Summer Workshop (6 undergraduate; maximum 12)**

A three-week study tour (taught in English) will be an intensive study of the history, politics, and culture of this area. The location of the trip may vary from year to year. Students examine the intersection of religion, literature, film, visual arts, history, politics

and/or architecture. The tour will visit major historical and cultural sites and hear lectures from local specialists.

*Recommended prerequisites:* (482) REL/RUS 133 or ATH/HST/POL/REL/RUS 254. *Cross-listed with* ATH/HST/REL/RUS.

**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:* (486) POL 271 or permission of instructor.

**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.

*Prerequisites:* (488) POL 271 and 332.

**POL 489/589 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 or have permission of instructor.

**POL 601 Foundations of Political Analysis (3)**

Study of the history, development and public contributions of the discipline of political science with a focus on key research themes that cut across sub-fields. Open to students with graduate standing in Political Science only.

*Concurrent course:* POL 602.

**POL 602 Research and Writing for Political Scientists (2)**

Survey of the databases and search tools used in political science/policy research. Discussion of and instruction in different types of written documents produced by working political scientists. Students taking this course will also complete the requirements for certification in human subjects research. Open to students with graduate standing in Political Science only.

*Concurrent course:* POL 601.

**POL 603 Introduction to Quantitative Methods (2)**

Introduction to statistical techniques in quantitative methods. *Prerequisite:* graduate standing in Political Science. Open to students with graduate standing in Political Science only.

*Concurrent course:* POL 604.

**POL 604 Public Policy Research (2)**

Introduction to the practice of public policy research. Exploration of the political economy of public policy. Open to students with graduate standing in Political Science only.

*Concurrent course:* POL 603.

**POL 605 Writing Workshop for Final Project for Master's Degree (1)**

Writing workshop for MA students enrolled in POL 606 Final Project. Open to students with graduate standing in Political Science only.

**POL 606 Final Project for Master's Degree (4)**

Directed research and writing of professional report on a subject to be determined in consultation with student's faculty supervisor. Open to students with graduate standing in Political Science only..

*Concurrent course:* POL 605.

**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. Offered alternate years. *Prerequisites:* POL 605, 606, and 607.

**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. Summer only; offered infrequently.

*Prerequisites:* POL 605 and 607.

**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 from 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 Post-Communist Political Systems**

**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.

## PRELAW STUDIES COURSES (PLW Arts and Science)

**PLW 101 Exploring Careers in Law I (1)**

Explores the various areas of legal practice through guest legal practitioners and helps students considering a career in the legal profession develop an appreciation for the diversity of the legal field, the various career options available upon graduation from law school, what is required to prepare for admission to law school, and the core competencies required for law school success.

**PLW 201 Exploring Careers in Law II (1)**

This one hour per week course will expose students to the skills and experiences used by lawyers in practice. Exploration of these skills will embrace a variety of disciplines and use a combination of case studies and guest speakers to both discuss and engage with these skills. Topics include: issue spotting, persuasion, advocacy, strategy, human behavior, mediation/ADR, negotiation and ethics.  
*Prerequisite: PLW 101 or POL 140C.*

**PLW 401 Preparing for a Career in Law (1)**

Prepares students to navigate the law school admissions process. Students reflect on their motivation for becoming a lawyer through preparing resumes and personal statements for their applications, and learn how to research law schools, prepare a law school list, and complete on-line applications.

## PREMEDICAL STUDIES COURSES (PMD Arts and Science)

**PMD 101 Explorations in Medicine (1)**

Explores the various fields of medicine and helps students considering a career in the healthcare field develop a comprehensive plan of preparation for admission to medical school or other healthcare profession school. This professional development course is for all students considering a career in healthcare. Credit/no-credit only.

**PMD 210 Premedical Scholars Seminar: Discussions in healthcare (1; maximum 4)**

This seminar offers students in the Premedical Scholars program the opportunity to identify, present, and discuss issues that will face future healthcare practitioners. May be taken multiple times. Credit/no-credit only. Open only to students in the Premedical Scholars Program.

**PMD 301 Preparing for a Career in Medicine (1)**

Explores issues facing medical practitioners, encourages reflection on personal medical experiences and motivation for becoming a healthcare professional, and develops interviewing skills. The final product will be completion of a mock application to a healthcare professional school. This professional development course will be of interest to students applying to medical or other health profession school. Credit/no-credit only.

## PORTUGUESE COURSES (POR Arts and Science; Department of Spanish and Portuguese)

**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 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. IIB, IIBB, Cul.  
*Cross-listed with BWS/FST/LAS/MUS.*

**POR 211 Intermediate Portuguese (4)**

Intensive language course that allows students to complete the equivalent of Portuguese in one semester. CAS-A.  
*Prerequisite: POR 111.*

**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. CAS-B-LIT.  
*Prerequisite: POR 111 and 211.*

**POR 381 African Lusophone Literature (3)**

A focus on questions of gender, race, class and stereotypes in the African Lusophone countries. Taught in English. CAS-B-LIT.  
*Prerequisite: any literature course. Cross-listed with ENG/BWS/FST.*

**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/WGS.*

## 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 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. IIC, Cul.

*Prerequisite:* PSY 111. *Cross-listed with* AAA/BWS.

### 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 293 Research Design and Analysis in Psychology I (4)

Provides an introduction to conceiving, designing, and conducting research in psychology, as well as analyzing, interpreting, and reporting results from such research. It prepares students to be both consumers and producers of scientific research, and also involves basic issues related to the work of psychological scientists such as theory development, research ethics, and scientific writing. Topical coverage includes primarily descriptive and correlational methods. CAS-QL.

*Prerequisite:* STA 261.

### PSY 294 Research Design and Analyses in Psychology II (4)

Extends the foundation for research skill developed in PSY 293, with an emphasis on the experimental method as well as possible treatment of several other designs (e.g., small N, qualitative research). The completion of this two-course sequence will prepare students for independent research and thorough understanding of upper-level course content. CAS-QL.

*Prerequisite:* 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 313 Advancing in Leadership and Pedagogy (1-3)

Students who have already led a discussion group as part of PSY 111 will have the opportunity to lead another discussion group and pursue a project of their own choosing that addresses a problem in which they have developed a significant interest as a result of previous work as a discussion leader.

*Prerequisites:* PSY 111, 211, 212 and permission of instructor.

### 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.

*Prerequisite:* PSY 294.

### PSY 324 Advanced Social Psychology (3)

Advanced topics in contemporary social psychology. CAS-QL.

*Prerequisite:* PSY 221 and 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 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 294. *Cross-listed with* WGS.

### 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 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 deviant 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 294.

### PSY 329 Psychological Perspectives on Health (3)

Examination of psychological factors involved in health. Topics include the appraisal of information concerning risks to health, the 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 process involved in attitude and behavioral change with respect to health issues.

*Prerequisite:* PSY 111. *Cross-listed with* KNH.

### PSY 331 Infant Development (3)

A survey of research and theory on physical, cognitive and social development in infancy.

*Prerequisite:* PSY 231 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.

*Prerequisites:* PSY 231 and 294.

### PSY 333 Adolescent Development (3) MPT

Survey of research and theory on physical, cognitive, and social development in adolescence.

*Prerequisites:* PSY 231 and 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.

*Prerequisites:* PSY 231 and 294.

**PSY 335 Developmental Lab (1)**

A first-hand experience to observe organizations throughout the region which serve different populations throughout the lifespan. Taken in conjunction with one of the following: PSY 331, 332, 333 or 334. A first-hand experience to observe human developmental processes in organizations throughout the region serving different populations.

*Prerequisites:* PSY 231 and 294. *Co-requisite:* PSY 331, 332, 333 or 334.

**PSY 343 Psychopathology (3) MPT**

Physical, developmental, and social sources, symptoms, treatment, and prevention of abnormal behavior; emphasis on current research and theory.

*Prerequisites:* PSY 241 or 242; and 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 and 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.

*Prerequisites:* PSY 242 and 294. PSY 231 is recommended.

**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.

*Prerequisite:* PSY 294.

**PSY 350 Advanced Topics in Personality Theory and Research (3)**

Topics in personality theory and research at an advanced undergraduate level.

*Prerequisites:* PSY 241 and 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. 3 Lec. 1 Lab.

*Prerequisite:* BIO 305 or (PSY 251 and PSY 294).

**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:* BIO 305 or (PSY 251 and PSY 294).

**PSY 372 Learning and Cognition (3) MPT**

Explores key concepts and empirical findings from the study of human learning, memory, cognition, and knowledge representation and their ramifications for developing expertise and designing learning environments and experiences. 3 Lec.

*Prerequisite:* PSY 271 and PSY 294.

**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. 3 Lec. 1 Lab.

*Prerequisite:* PSY 294.

**PSY 376 Psychology of Judgment, Decision Making, and Reasoning (3)**

An exploration of the psychology of human judgment and decision making (JDM) and reasoning: what it means to interpret, evaluate, make inferences about and otherwise judge aspects of our world to make decisions and solve problems – from the momentous to the mundane. Students participating in this seminar will develop a deep appreciation of central questions that have driven the field (e.g., the nature of rationality); the theories and methods used to tackle these

questions; and the role of internal and external influences on how we make decisions and act upon them to achieve our goals.

*Prerequisite(s):* PSY 271 and PSY 294.

**PSY 394 Editorial and Publishing Processes in Psychology (2)**

Introduces students to the editorial and publication processes in psychology. Students will gain skills such as manuscript preparation, peer review, drafting professional cover letters, responding to reviewer criticism, and making editorial decisions. The course is intended to prepare students for membership on the board of the department's undergraduate research journal.

*Prerequisite:* PSY 293 and 294.

**PSY 400 Senior Honors in Psychology (3)**

Focus on developing scientific writing and methodological skills for students pursuing an honors thesis within psychology.

*Prerequisite:* 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 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.

*Prerequisite:* ECO 311 or (PSY 293 and 294). *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 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:* BIO 305 or PSY 294 and one of the following: (PSY 251, 271, 273).

**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 294 and (PSY 271 or PSY 273).

**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 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. Offered infrequently.

*Prerequisite:* PSY 271 and PSY 294.

**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 294 or instructor approval.

**PSY 480 Independent Reading for Department Honors (1-6; minimum 4, maximum 6)**

*Prerequisite:* PSY 294, 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:* PSY 294 and 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.

*Prerequisite:* PSY 294.

**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:* PSY 294 and 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:* PSY 294 and 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:* PSY 294 and permission of instructor.

**PSY 497/597 Methods of Social Justice Inquiry (3)**

Historical and critical overview of methods of inquiry used by scholars and activists seeking social justice, with emphasis on Participatory Action Research, Narrative Analysis, Community Psychology, Institutional Ethnography, and Mixed-Methods designs. Examines methodologies of previous and current research as framed by social constructionist epistemology, interdisciplinary conceptual frameworks, cultural values, and politics of advocacy for equity and fairness. Provides mentoring in application of techniques. *Cross-listed with FSW/SJS/WGS.*

**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:* 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:* 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, DSM-5, women and mental health, family-systems models, interpersonal models, child and adolescent psychopathology, childhood hyperactivity, developmental disabilities, eating disorders of childhood and adolescence.

*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, 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: interpersonal, cognitive-behavioral, marital, family-systems, group therapy; special issues in the treatment of women, children, and adolescents.

*Prerequisite:* permission of instructor.

**PSY 645O Clinical Supervision I (1)**

First course of a two course sequence designed to introduce doctoral students to clinical supervision. Course covers topics such as supervision theory, models, and implementation.

*Prerequisite:* permission of instructor.

**PSY 645I Clinical Supervision II (1)**

Second course of a two course sequence designed to introduce doctoral students to clinical supervision. Course covers topics such as advanced supervision theory, models, and implementation.

*Prerequisite:* permission of instructor

**PSY 645L Consultation (1)**

Module offered in five-week sprint mode, designed to introduce doctoral students to clinical, school, and community consultation. Course covers topics such as consultation theory, models, and implementation.

*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 Developmental Psychopathology across the Lifespan (3)**

Overview of etiology, phenomenology, course, diagnosis and correlates of psychopathology, with an emphasis on processes across the lifespan.

*Prerequisite:* 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 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 670A Initial Clinical Psychology Traineeship (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 670B Advanced Clinical Psych Traineeship (1-4; maximum 12)**

Supervised experience in psychological interventions in public and private agencies or settings.  
*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.  
*Prerequisite: 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)

**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 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. IIB, IIIB, Cul, H.  
*Cross-listed with RUS.*

**REL 201 Methods for the Study of Religion (3) MPT**

Classical and contemporary theories of the nature, origin, and function of religion in human society. Required for majors and minors in comparative religion.  
*Prerequisite: sophomore standing.*

**REL 203 Global Religions of India (3) MPF**

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 is practiced in India and other parts of Asia. IIB, IIIB, Cul, H.  
*Cross-listed with AAA.*

**REL 223 Introduction to Buddhism (3)**

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.

**REL 226 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 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.*

**REL 241 Religions of the American Peoples (3) 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.*

**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. IIB, Cul, H.

*Cross-listed with ATH/CLS/HST/ITS/POL/RUS.*

**REL 275 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 286 Global Jewish Civilization (3) MPF**

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 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 312 Religions of the Old Testament/Hebrew Bible (3) MPT**

Survey of religion in 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.

**REL 313 Marriage Across Cultures (3)**

This class engages feminist theory and gender studies to explore the consequences of different types of marital formations (polygamous as well as monogamous) for the lives of women and men in selected Western and non-Western cultures.

*Cross-listed with AAA/WGS.*

**REL 314 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.

**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.*

**REL 223 Introduction to Buddhism (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: PHI 106 or permission of instructor.*

**REL 331 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.

**REL 332 The Development of Christianity: 100 to 451 (3)**

Development of Christianity and the interaction between religion, culture, society, and politics from second through fifth centuries.

**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 WGS.*

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

Places women's lives and cultic experiences at the center, introducing a range of religious traditions from ancient Mesopotamia, ancient Israel, and Egypt, to Greece and Rome, as the database for an analysis of women's relationships to myths, temple cults, festivals, mystery rites, domestic cult, private and immigrant cults, and magic from the second millennium BCE to the 4th century CE. The course emphasizes the application of modern critical approaches to the ancient evidence including material culture and epigraphy. Offered infrequently.

*Cross-listed with WGS.*

**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 pay 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 WGS.*

**REL 336 Jesus and the Gospels (3)**

Jesus and his message according to the gospel material studied critically in historical context.

**REL 337 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 338 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 341 Protestantism and the Development of American Culture (3) MPT**

History and symbolic structure of American Protestantism and its role in the development of American culture.

*Cross-listed with AMS.*

**REL 342 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.*

**REL 343 African-American Religions (3)**

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.

*Cross-listed with BWS.*

**REL 345 Women, Religion and Social Change in America (3) 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. Cross-listed with AMS/WGS.

**REL 346 Issues in the Study of Native American Religions (3)**

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 AMS.*

**REL 355 Religion and Law (3)**

Students will work with legal briefs, theories, and case studies drawn from a range of traditions, such as Islamic, Jewish, Hindu, and Christian, to examine how law and religion are constituted and used to construct, challenge, or complicate identities. Case studies will focus on controversial cases in the US and other parts of the world. Also analyzed will be the changes to law and religion brought by modernization such as the effects of secularization, technology and new media, colonial/post-colonialism, and human migration.

**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 376 Global Militant Islamisms (3)**

Introduces and examines the development of contemporary militant Islamist movements such as the Muslim Brotherhood, Hizbullah, Hamas, and the various manifestations of al-Qa'ida. Evaluates the changing interpretations of Islamic tradition, law, and religious practice each movement manifests. Particular attention is paid to a critical analysis of the writings and multimedia productions of these movements in response to modernization, secularization, and global historical and socioeconomic circumstances.

**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.

**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. Offered infrequently.

*Cross-listed with PHL 392.*

**REL 402/502 Basic Structures in the History of Religions (4) MPC**

Investigations of categories, types, and forms developed for the study of religions, such as the Sacred, the Holy, myth, initiation.

**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.*

**REL 430/530 Early Christian Literature and Religion (4; maximum 4)**

Selected texts and/or themes of early Christianity studied critically in their historical and cultural context.

**REL 470/570 Problems in Western Religious Thought (4)**

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 470A/570A 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 3 hours counting towards the history major.

*Cross-listed with ATH 436/536, GEO 410D/510D, HST 436/536, POL 440/540, and RUS 436/536.*

**REL 480 Independent Reading for Departmental Honors (1-6)**

**REL 482/582 Russian, Eastern European and Eurasian Summer Workshop (6 undergraduate, 3-6 graduate; maximum 12)**

A three-week study tour (taught in English) will be an intensive study of the history, politics, and culture of this area. The location of the trip may vary from year to year. Students examine the intersection of religion, literature, film, visual arts, history, politics and/or architecture. The tour will visit major historical and cultural sites and hear lectures from local specialists.

*Recommended prerequisites: REL/RUS 133 or ATH/HST/POL/REL/RUS 254. Cross-listed with ATH/HST/POL/RUS.*

**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 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, Asian, and Middle Eastern Languages and Cultures)

**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) 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. Taught in English. IIB, IIIB, Cul, H.

*Cross-listed with REL.*

**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. Taught in English. IIB, Cul, CAS-B-LIT.

**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. IIB, IIIB, Cul, H.

*Cross-listed with FRE/GER 212 and HST 211.*

**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. Taught in English. 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. Taught in English. IIB, Cul, H.

*Cross-listed with ATH/CLS/HST/ITS/POL/REL.*

**RUS 255 Russian Literature in English Translation From Pushkin to Dostoevsky (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. IIB. CAS-B-LIT.  
*Cross-listed with ENG.*

**RUS 256 Russian Literature in English Translation: From Tolstoy to Nabokov (3) MPF, MPT**  
Treatment of selected works of Russian literature (realism, modernism, post-modernism) with special attention to Tolstoy, Chekhov, Bunin, Sologub, Bulgakov, Babel and Nabokov. CAS-B-LIT.  
*Cross-listed with ENG.*

**RUS 257 Russian Literature in English Translation: From Pasternak to the Present (3) MPF, MPT**  
Treatment of major trends in the development of Russian literature since 1953. Examines works by Pasternak, Solzhenitsyn, Rasputin, Trifonov, and others. IIB. CAS-B-LIT.  
*Cross-listed with ENG 267.*

**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.  
*Cross-listed with WGS.*

**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. CAS-B-LIT.  
*Cross-listed with FST.*

**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. Taught in English. CAS-B-LIT.  
*Cross-listed with FST.*

**RUS 301/302 Advanced Russian (3, 3) MPT**  
Conversation, advanced composition, reading in Russian literature.  
*Prerequisite: RUS 202.*

**RUS 306 Russia and Eurasia: Anthropological Perspectives (3)**  
Description and analysis of the cultures of Russia and Eurasia with a focus on non-Russian peoples and contemporary survival. Taught in English.  
*Cross-listed with ATH.*

**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 325 Russian Reception of Classical Culture (3)**  
Examines a variety of forms and poetic expressions in both modern (Russian) and ancient poetry. Introduces students to the way in which Russian literature and especially poetry responded to Greco-Roman antiquity. Analyzes how the study of classical antiquity, with its rich mythological tradition and history, represented to the Russian literary elite a window into the West and an opportunity to establish a Russian literary heritage within Western literary canon. All readings in English translation.  
*Cross-listed with CLS/ENG.*

**RUS 411/412 Advanced Conversation and Composition (3, 3)**  
Practice in oral communication and composition at the advanced level.  
*Prerequisite: RUS 302.*

**RUS 436/536 Havighurst Colloquium (3)**  
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 3 hours counting towards the history major. Taught in English.  
*Cross-listed with ATH 436/536, GEO 410D/510D, HST 436/536, POL 440/540, REL 470A/570A.*

**RUS 450 Topics in Russian Culture (3; maximum 9)**  
In-depth study of a selected topic in Russian culture. Taught in Russian. Offered infrequently.  
*Prerequisite: RUS 302 or permission of instructor.*

**RUS 480 Departmental Honors (4-6)**  
May be taken in senior year.  
*Prerequisite: permission of instructor and department.*

**RUS 482/582 Russian, East European and Eurasian Summer Workshop (6 undergraduate, 3-6 graduate; maximum 12)**  
A three-week study tour (taught in English) will be an intensive study of the history, politics, and culture of this area. The location of the trip may vary from year to year. Students examine the intersection of religion, literature, film, visual arts, history, politics and/or architecture. The tour will visit major historical and cultural sites and hear lectures from local specialists.  
*Recommended prerequisites: REL/RUS 133 or ATH/HST/POL/REL/RUS 254. Cross-listed with ATH/HST/POL/REL.*

## SOCIAL JUSTICE STUDIES (SJS Arts and Science; Department of Sociology and Gerontology)

**Note:** A student may **not** declare a double major in SOC and SJS if he/she is taking Track 1 or Track 2 of the SJS major.

A student may **not** major in SJS Track 2 AND minor in Criminology.

**SJS 101 Elements of Social Justice (3)**  
The Elements of Social Justice is a one credit hour course which aims to raise students' awareness of social injustice, encourage them to view various situations through a social justice lens, and suggests how various ethical frames can be used to advocate for a socially just world.

**SJS 159 Creating Global Peace (3) MPF**  
Focuses on the study of peace, as represented across disciplinary boundaries and at local-to-global scales of analyses. Combines guest lectures, scholarly readings and other media, reflective writing and discussion, and a service-learning commitment that together explore different ways of thinking about peace, and 'peace' practices at global to local scales. IIC, IIB, Cul.  
*Cross-listed with GEO.*

**SJS 165 Introduction to Social Justice Studies (3) MPF**  
Provides a basis to understand, interpret, and solve social problems in fair, equitable, and just ways. IIC.  
*Cross-listed with SOC.*

**SJS 204 Introduction to Service-Learning (3)**  
Focuses on the integration of service and community engagement with academic goals as pedagogy. Students will learn how to identify authentic community needs and match them with academic goals. Students will participate in Service-Learning throughout the semester.  
*Cross-listed with WST.*

**SJS 215 EMPOWER I: Educational and Economic Justice and Service-Learning (2)**  
EMPOWER I explores how educational and economic injustices impact communities and considers strategies for social change. This course contains a Service-Learning component.  
*Co-requisite: enrollment in UTC or SJS/SOC 165.*

**SJS 216 EMPOWER II: The Intersections of Race, Class, and Education (2)**  
Builds on the concepts learned in EMPOWER I to further explore issues of race and class and how they intersect in education. This course contains a Service-Learning component.  
*Recommended prerequisite: SJS 215.*

**SJS 265 Critical Inquiry: Penny Lecture Series (2)**  
Weekly lectures given by different Black World Studies Affiliates. Credit/No Credit.  
*Cross-listed with BWS/GTY/SOC.*

**SJS 303 Professional Development (3)**  
Explores a variety of career paths that use the skills acquired by sociology and social justice studies students while developing and honing those skills.  
*Cross-listed with SOC.*

**SJS 304 Theory Into Action: Service-Learning (3)**

Focuses on sustaining community and faculty partnerships as part of cultivating a culture of service and reflection through Service-Learning.

*Prerequisite:* SJS/WST 204 or instructor approved course. Cross-listed with WST.

**SJS 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 151 or SOC 153 or SJS/SOC 165 or BWS 151 or DST/EDP/SOC 272. Cross-listed with SOC.

**SJS 470 Social/Political Activism (3) MPC**

Provides students with the opportunity to explore how indigenous groups effect change in their communities.

*Prerequisite:* SOC 151 or SOC 153 or SJS/SOC 165. Cross-listed with BWS/DST/SOC.

**SJS 487 Globalization, Social Justice, and Human Rights (3) MPF**

Explores the theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights. Provides students with a unique opportunity to explore these topics within the classroom and via internet and other technologies in classrooms located around the globe. The student, through collaborative projects with peers around the world, will reflect upon how globalization shapes and transforms local communities and national cultures. IIIB.

*Prerequisites:* SOC 151 or SOC 153 or SJS/SOC 165. Cross-listed with SOC.

**SJS 497/597 Methods of Social Justice Inquiry (3)**

Historical and critical overview of methods of inquiry used by scholars and activists seeking social justice, with emphasis on Participatory Action Research, Narrative Analysis, Community Psychology, Institutional Ethnography, and Mixed-Methods designs. Examines methodologies of previous and current research as framed by social constructionist epistemology, interdisciplinary conceptual frameworks, cultural values, and politics of advocacy for equity and fairness. Provides mentoring in application of techniques. Cross-listed with FSW/PSY/WGS.

**SJS 600 Seminar in Sociology and Social Justice Studies (3; maximum 12)**

Advanced readings in sociology and social justice studies.

Cross-listed with SOC.

## SOCIOLOGY COURSES (SOC Arts and Science; Department of Sociology and Gerontology)

**Note:** A student may not declare a double major in SOC and SJS if he/she is taking Track 1 or Track 2 of the SJS major.

**Note:** A student majoring in SOC and minoring in Criminology must fulfill the requirements for the major AND the minor for a total of 50 SOC credits.

Beginning Fall 2012 we are phasing out SOC 152 - Social Relations and U.S. Cultures. If you have already taken that class, it serves the same function as either SOC 151 or SOC 153.

All 300 and 400 level sociology courses (with the exception of SOC 375 and SOC 378) require SOC 151 or SOC 153 (or SOC/SJS 165 where indicated) as a prerequisite. Prerequisites may be waived with permission of instructor. See note below on additional requirements for 400-level courses. Students cannot receive credit toward the sociology major for both SOC 151 and SOC 153.

400-level courses require upper-class 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, psychology or social justice studies. Six of these hours must be advanced credit. Note specific prerequisite for SOC 440.

Upper level classes require the successful completion of either SOC 151 or SOC 153 and where indicated SOC/SJS 165.

**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. SOC 151 serves as a prerequisite for upper level sociology classes and as an entry course for the SOC major, SOC minors and SOC thematic sequences. Credit for the sociology major is NOT given for both SOC 151 and SOC 153. IIC.

**SOC 153 Sociology in a Global Context (3) MPF**

Designed to develop your sociological imagination – an imagination that allows you to place yourself in a larger ever changing global world. SOC 153 serves as a prerequisite for upper level sociology classes and as an entry course for the SOC major, SOC minors and SOC thematic sequences. Credit for the sociology major is NOT given for both SOC 151 and SOC 153. IIC, IIIB.

**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(s):* SOC 151 or 153 or open to all business majors.

**SOC 165 Introduction to Social Justice Studies (3) MPF**

Provides a basis to understand, interpret, and solve social problems in fair, equitable, and just ways.

Cross-listed with SJS. IIC.

**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 (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 WGS.

**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). IIC, IIIB, Cul, H.

Cross-listed with GEO/ITS.

**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/WGS.

**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.

**SOC 257 Population (3)**

Examines population theory, characteristics, dynamics and policies, focusing on global processes and global inequality.

**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. CAS-QL.

**SOC 265 Critical Inquiry: Penny Lecture Series (2)**

Weekly lectures given by different Black World Studies Affiliates. Credit/No Credit.

*Cross-listed with BWS/GTY/SJS.*

**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 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/EDP/WGS.*

**SOC 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 BWS/KNH. IIC, H.*

**SOC 303 Professional Development (3)**

Explores a variety of career paths that use the skills acquired by sociology and social justice studies students while developing and honing those skills. Cross-listed with SJS.

**SOC 305 Sociology of Globalization (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.

**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: SOC 151 or SOC 153 or SOC/SJS 165 or SOC/DST/EDP 272 or GTY 154. Cross-listed with GTY.*

**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/SJS 165 or SOC 151 or SOC 153 or BWS 151 or DST/EDP/SOC 272.*

**SOC 348 Race and Ethnic Relations (3) MPT**

Description and analysis of emergence and trends of minority relations in the U.S.

*Prerequisites: SOC 151 or SOC 153 or SOC/SJS 165 or BWS 151. Cross-listed with BWS.*

**SOC 352 Criminology (3) MPT**

Sociological analysis of theories, institutionalization, and social responses to crime and criminality.

*Prerequisite: SOC 151 or SOC 153 or SOC/SJS 165.*

**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 or SOC 153 or SOC/SJS 165 or GTY 154. Cross-listed with GTY.*

**SOC 358 Sociology of Mental Disorders (3)**

Study of social factors in cause, perpetuation, and treatment of emotional problems. Offered infrequently on the Oxford campus.

*Prerequisite: SOC 151 or SOC 153 or SOC/SJS 165.*

**SOC 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.

*Cross-listed with BWS/FSW.*

**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.

*Prerequisite: SOC 151 or SOC 153. 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.

*Prerequisites: SOC 151 or SOC 153 or SOC/SJS 165.*

**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/WGS.*

**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/WGS.*

**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 151 or SOC 153 or SOC/SJS 165 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: SOC 151 or SOC 153 or SOC/SJS 165 and 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.

*Prerequisites: SOC 151 or SOC 153 or SOC/SJS 165.*

**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.

*Prerequisite: SOC 151 or SOC 153 or SOC/SJS 165.*

**SOC 413/513 Juvenile Delinquency (3) MPT**

Study of theories, definitions, and social construction of juvenile delinquency.

*Prerequisite: SOC 151 or SOC 153, SOC/SJS 165.*

**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.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165.

#### **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.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165.

#### **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. Students are expected to take SOC 410 or SOC 413 in the term following the internship.

#### **SOC 448 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.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165 or BWS 151. Cross-listed with BWS.

#### **SOC 451/551 Family Violence (3) MPC**

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. **Note:** This course does not serve as a Capstone class for the Sociology major.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165. Cross-listed with FSW/WGS.

#### **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.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165.

#### **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 are currently 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. Offered infrequently on the Oxford campus.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165 and SOC 262.

#### **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.

*Prerequisite:* for SOC 463: SOC 151 or SOC 153 or SOC/SJS 165 or GTY 154. *Prerequisite for SOC 563:* SOC 563 and permission of instructor. Cross-listed with GTY/WGS.

#### **SOC 470 Social/Political Activism (3) MPC**

Provides students with the opportunity to explore how indigenous groups effect change in their communities.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165 or BWS 151. Cross-listed with BWS/DST/SJS.

#### **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.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165.

#### **SOC 487 Globalization, Social Justice and Human Rights (3) MPT**

This course explores the theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights. The course provides students with a unique opportunity to explore these topics within the classroom and, via internet and other technologies, across classrooms located around the globe. The student, through collaborative projects with peers around the world, will reflect upon how globalization shapes and transforms local communities and national cultures. IIIB.

*Prerequisite:* SOC 151 or SOC 153 or SOC/SJS 165. Cross-listed with SJS.

#### **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.

*Prerequisite:* permission of instructor. Cross-listed with COM/DST/ENG/SPA and EDP 489.

#### **SOC 600 Seminar in Sociology and Social Justice Studies (3; maximum 12)**

Advanced readings in sociology and social justice studies.

Cross-listed with SJS.

## **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)**

Covers basic Spanish grammar, vocabulary and an introduction to Hispanic cultures, with the objective of teaching students to speak, understand and write Spanish with increasing ability.

*Prerequisite for SPN 102:* SPN 101.

#### **SPN 104 Beginner's Course Spanish Lab (1)**

Laboratory course covering basic Spanish vocabulary and grammar, with the objective of reinforcing students' writing, speaking, reading, and listening skills.

*Recommended co-requisite:* SPN 201.

#### **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. CAS-A.

*Prerequisite:* (for SPN 201) SPN 102 or 111 or placement exam score. (for SPN 202) SPN 201 or placement exam score.



**SPN 203 Spanish for Health Care Professions (3)**

An intermediate level course geared towards students planning to work in the health care field. Designed to familiarize students with medical vocabulary and cultural issues they may encounter while working with Hispanic patients. Spanish 203 is also designed to further student's knowledge of Spanish grammar while continuing the development of speaking, reading and writing skills. Students earn graduation credit for 202 or 203, but not both. CAS-A.

*Prerequisite:* SPN 201 or placement exam score.

**SPN 204 Second Year Spanish Lab (1)**

Laboratory course covering intermediate Spanish vocabulary and grammar, with the objective of reinforcing students' writing, speaking, reading, and listening skills.

*Recommended co-requisite:* SPN 201.

**SPN 241/242 Intermediate Conversational Spanish (2, 2) (241)**

241- Intensive practice in speaking and understanding everyday conversational Spanish. 242- Continued intensive practice in speaking and understanding Spanish, with an emphasis on narration of present, past, and future events. Designed to improve pronunciation and fluency. Credit/no-credit only.

*Prerequisite for 241:* SPN 202 or 203 or 299D. *Recommend concurrent or prior registration in SPN 311.* *Prerequisite for 242:* SPN 241.

**SPN 292 Language and the Latin American Diaspora (3)**

This is a course on the sociolinguistic manifestations of the Latin American diaspora, with concentration on the US and Spain as two parallel but not equal migratory contexts. Students will study the historic causes and social consequences of linguistic phenomena such as social bilingualism, language contact, language policy, and language in the mass media. Class work emphasizes the discursive analysis of original oral and written texts from immigrant communities and host societies. Taught in translation. IIB, Cul, H.

**SPN 303 Introduction to Linguistics (4) MPF**

Introduction to fundamental concepts and methods of linguistic science in its descriptive and historical aspects. Does not count toward the Spanish major or minor. Taught in English. V. CAS-E.

*Cross-listed with* ATH 309/GER 309/ENG 303.

**SPN 311 Grammar Review and Introductory Composition (3)**

Continued development of basic grammatical proficiency in Spanish with an introduction to the fundamentals of writing in the Spanish language.

*Prerequisite:* SPN 202 or SPN 203 or 299D or appropriate placement exam score.

**SPN 312 Introduction to Spanish Language/Linguistics (3) MPT**

Introduction to Spanish 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 or appropriate placement exam score. IIB. CAS-B-LIT.

**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. May be taken abroad.

*Prerequisite:* SPN 311.

**SPN 317 Business Spanish (3)**

An introduction to the cultural and social organization of the Hispanic business world with an overview of the vocabulary and idioms necessary for doing business in Spain or Latin America.

*Prerequisite:* SPN 311 or permission of instructor.

**SPN 318 Introduction to Hispanic Film (3)**

This course is an introduction to film analysis in Spanish, and to the cinemas of Spain and Latin America. Students will learn the skill of shot by shot analysis, and also learn how to analyze Spanish and Latin American film within its historical and sociocultural contexts. Mandatory weekly screenings. CAS-B.

*Prerequisite:* SPN 311.

**SPN 331 Spanish for Community Work (3)**

An introduction to the Hispanic community with an examination of the achievements and challenges of this community at a national and local level. Designed to familiarize students with the necessary

information and skills to be able to work effectively with a partnering organization in ways that benefit the local immigrant community. Spanish 331 is also designed to further students' oral proficiency through intensive oral practice. Students will participate in a 20-hour service-learning project as a part of this course.

*Prerequisite:* SPN 311.

**SPN 332 Latin American Popular Culture (3)**

Interprets and contextualizes elements of Latino and Latin American popular culture (art, music, food, and celebrity) in light of academic readings in Spanish and English that explore issues of hybridity, representation, commodification, and the quest for authenticity. Conducted in Spanish and English.

*Prerequisite:* SPN 311 or permission of instructor. Cross-listed with LAS.

**SPN 341 Advanced Conversational Spanish (3)**

Intensive oral practice through speeches, conversations, dramatizations. Credit/no-credit only.

*Prerequisite:* SPN 242 or permission of instructor. *Recommend concurrent or prior registration in SPN 316.*

**SPN 342 Advanced Conversational Spanish (3)**

Intensive oral practice through speeches, conversations, dramatizations. MAY BE TAKEN ABROAD.

*Prerequisite:* SPN 311.

**SPN 351 Cultural History of Spain I (3) MPT**

Cultural history of Spain, through a historico-literary lens, from the Arab occupation of Al-Andalus through the Reconquest to Spain's "Golden Age" of the Early Modern Period. CAS-B-LIT.

*Prerequisite:* SPN 315.

**SPN 352 Cultural History of Spain II (3) MPT**

Cultural history of Spain from the 18th-century to the present, with an emphasis on 20th century Spain. CAS-B-LIT.

*Prerequisite:* SPN 351 or permission of instructor.

**SPN 361 Spanish American Cultural History I (3) MPT**

An overview, reflected in a variety of 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. CAS-B-LIT.

*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 literary readings and films will vary. CAS-B-LIT.

*Prerequisite:* SPN 361 or permission of instructor.

**SPN 370 Topics in Hispanic Studies (3)**

Varied topics in Hispanic Studies. Repeatable for up to 9 credit hours.

*Prerequisite:* SPN 311.

**SPN 381 Spanish Language and Hispanic Culture I (3) MPT**

Social history of the Spanish language, with emphasis on the social, cultural and political factors that have interacted with language variation and change to produce the complex linguistic tapestry we call 'Spanish'.

*Prerequisite:* SPN 312.

**SPN 382 Spanish Language and Hispanic 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 Advanced Spanish Composition (3)**

Development of advanced writing skills in Spanish. Study grammatical structures, lexicon and rhetorical techniques as important resources for accurate and effective written communication. TO BE TAKEN ABROAD WHEN POSSIBLE.

*Prerequisite:* SPN 316.

**SPN 420 Selected Topics in Literature and Culture: Spain (3)**

In-depth study of Spanish literary texts or films on a specific cultural theme. CAS-B-LIT.

*Prerequisite:* SPN 352 or permission of instructor.

**SPN 430 Selected Topics in Literature and Culture: Spanish America (3)**

In-depth study of Latin American literary texts or films on a specific cultural theme. CAS-B-LIT.

*Prerequisite:* SPN 362 or permission of instructor.

**SPN 440 Selected Topics in Spanish Language and Hispanic 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. CAS-B-LIT.

*Prerequisites:* SPN 351 and 352 OR SPN 361 and 362 or permission of instructor.

**SPN 451/551 Studies in Spanish Narrative (3)**

Study of Spanish narrative from selected literary periods. Specific periods and texts may vary according to instructor. CAS-B-LIT.

*Prerequisites:* SPN 351 and 352 OR SPN 361 and 362.

**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. CAS-B-LIT.

*Prerequisites:* SPN 351 and 352 OR 361 and 362.

**SPN 453/553 Studies in Spanish Theatre (3)**

Study of selected theatrical movements in Spain. May offer comparative approaches. Specific periods and texts may vary according to instructor. CAS-B-LIT.

*Prerequisites:* SPN 351 and 352 OR SPN 361 and 362.

**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. CAS-B-LIT.

*Prerequisites:* SPN 351 and 352 OR SPN 361 and 362.

**SPN 461/561 Studies in Spanish American Narrative (3)**

Study of selected novels or short stories from the literature of Spanish America. Specific readings may vary according to instructor. CAS-B-LIT.

*Prerequisites:* SPN 351 and SPN 352 OR SPN 361 and 362.

**SPN 462/562 Studies in Modern Spanish American Drama (3)**

A panorama of representative movements and tendencies in modern Spanish American drama. Close readings of representative works by playwrights from Mexico, Argentina, Puerto Rico, Chile and Cuba. Focus on visual representation of plays through scenographic presentations. CAS-B-LIT.

*Prerequisite:* SPN 361 and 362.

**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 Studies in the Spanish American Essay (3)**

Study of the major Spanish American essayists, from the colonial era to the present, in light of their influence on both the emergence of the literary genre and the formation of modern Latin America. CAS-B-LIT.

*Prerequisite:* SPN 351 and 352 OR SPN 361 and 362.

**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:* SPN 312 or permission of instructor.

**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:* SPN 312 or permission of instructor.

**SPN 483/583 History of the Spanish Language (3)**

History of Spanish language from Classical and Vulgar Latin to the present. Changes in phonology, morphology, syntax, and lexicon. Major characteristics of Spanish dialects and closely related languages.

*Prerequisite:* SPN 312 or permission of instructor.

**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:* SPN 312 or permission of instructor.

**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; or SPN 381 and SPN 382; and one 400-level course. Must have senior standing. May not be taken abroad; must be taken on campus.

**SPN 600 Seminar in Hispanic Language, Literature or Culture (3; maximum 15 toward any degree)**

In-depth exploration of a specific theme/period/genre/issue in Spanish or Latin American literature, film or culture, or of a selected theme or issue of Spanish linguistics. Research intensive.

**SPN 617/618 Intensive Reading in Spanish for Graduate Students (3, 3)**

Preparation for graduate students in other departments with a basic reading knowledge of textual materials written in Spanish within their respective fields. Offered as needed.

**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 or Latin American literature, culture or linguistics.

**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 101 Beginning ASL I (4)**

This course will introduce conversationally relevant signs, fingerspelling, grammatical sign principles and background information related to deaf culture with the objective of teaching students to sign and understand ASL with increasing ability.

*Cross-listed with DST.*

**SPA 102 Intermediate ASL II (4)**

The Intermediate II course is a continuation of the Beginning ASL I course. This course will continue to introduce conversationally relevant signs, grammatical principles, and background information related to the Deaf culture with the objective of teaching students to sign and understand ASL with an increasing ability at the ACTFL proficiency intermediate low-mid level (Swender, Conrad, & Vicars, 2012). Swender, E., Conrad, D. J., & Vicars, R. (2012). ACTFL proficiency guidelines 2012. ACTFL, INC. Retrieved from <http://actflproficiencyguidelines2012.org>.

*Prerequisite:* DST/SPA 101.

**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 Studies (0-5; maximum 10 per year)**

*Prerequisite:* approved by instructor and department chair.

**SPA 201 Intermediate ASL I (3)**

The Intermediate ASL I course is a continuation of the Beginning ASL II course. This course will continue to address conversationally

relevant signs, grammatical principles, and background information related to the Deaf culture with the objective of teaching students to proficiently sign and understand ASL with an increasing ability dictated by the American Council on the Teaching of Foreign Languages' proficiency intermediate mid-high level.  
*Cross-listed with DST.*

**SPA 202 Intermediate American Sign Language II (3)**

Intermediate ASL II is the fourth course in the American Sign Language curriculum. Students will continue to develop ASL communication skills receptively and expressively through continued vocabulary and grammar instruction. Deaf culture concepts will be expanded upon with course instruction presented primarily in ASL. In addition, students will partake in service learning opportunities so the student can partake in mastery of ASL and to become assimilated with Deaf culture values.  
*Prerequisite: DST/SPA 201 or equivalent. Cross-listed with DST.*

**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, IIIA.

**SPA 222 Anatomy and Physiology Speech Production (3)**

Introduction to anatomical, physiological, and neurological characteristics of normal speech mechanisms; developmental embryology; and fundamental acoustics of speech.  
*Prerequisite or concurrent enrollment: BIO 161. Co-requisite: BIO 115, 116, 171 or 172.*

**SPA 223 Theories of 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: 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 277 Independent Studies (0-5; 10 maximum per year)**

*Prerequisite: 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: sophomore standing (pre-major status).*

**SPA 312 Deaf Culture: Global, National, Local Issues (3) MPF**

This course is intended to provide 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. IIC, IIIB, Cul.  
*Cross-listed with DST.*

**SPA 316 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 326 Aural Rehabilitation (3)**

Discussion of skills and abilities associated with hearing loss, strategies used in hearing loss intervention including listening and speaking, sign language and hearing aid selection for children and adults.

*Prerequisites: junior standing; major status; SPA 316.*

**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 377 Independent Studies (0-5; maximum 10 per year)**

*Prerequisite: 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 412/512 Introduction to Clinical Practicum in Speech-Language Pathology (3)**

Study of the basic clinical skills and elements of a speech therapy session. Students will work with a clinical faculty member in the practical application of these skills.

*Prerequisite: SPA major or graduate student.*

**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: senior standing (major status).*

**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 (3) MPT**

Overview of manual, graphic, and electronic systems used by individuals with severe communication disabilities.

*Prerequisite: SPA 127 or SPA 233.*

**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 Studies (0-5; maximum 10 per year)**

*Prerequisite: 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.

*Prerequisite: graduate standing and approval of instructor.*

**SPA 614 Evidence Based Practice in Communication Sciences and Disorders (3)**

This graduate level course integrates the fundamental concepts of evidence based practice (EBP) with research methodologies. The goal of this course is for students to directly apply EBP concepts to clinical practice in the area of speech-language pathology. Further, the final student product generated from this research course will fulfill part of the Graduate School requirement for a master of science degree.

*Prerequisite: SPA 662.*

**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.

*Prerequisite: graduate standing and approval of instructor.*

**SPA 621 Neurogenic Language Disorders (3)**

Advanced study in causes, management, and related research of adult aphasia.

*Prerequisite: graduate standing and approval of instructor.*

**SPA 622 Organic Speech Disorders: Voice Pathology (3)**

Advanced study in causes, management, and research of voice disorders.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: graduate standing and approval of instructor.*

**SPA 641 Advanced Studies in Fluency Therapy (1)**

Advanced study in management of fluency disorders.

*Prerequisite: 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.

*Prerequisite: graduate standing and approval of instructor.*

**SPA 660 Independent Project (1-4; maximum 8)**

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: SPA 672, graduate standing and approval of instructor.*

**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.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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)**

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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.

*Prerequisite: 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 ISA 205, STA 261, STA 301, or STA 368.**

**STA 271 Introduction to Actuarial Science (1)**

Introduction to the actuarial profession and to the concepts and problems encountered by actuaries. Topics include the different types of insurance, probability's role in insurance, interest theory, mortality, annuities, pensions, reserves, life insurance, the different actuarial societies, and employment opportunities. Each class

meeting will feature a guest lecturer from an area insurance company.

### **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. CAS-QL.

*Prerequisite:* ISA 205; or STA 301 or 363 or 368. Cross-listed with ISA.

### **STA 350 Topics in Statistics (1-4; maximum 6)**

Topics in statistics that are extensions or applications of ideas covered in previous statistics courses. Previous statistics courses at the 2xx/3xx level is typically assumed.

### **STA 363 Introduction to Statistical Modeling (3) MPT**

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. STA 363 may not be taken after credit has been earned for STA 463. CAS-QL.

*Prerequisite:* STA 261 or STA 301 or 368 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.

*Prerequisite:* ISA 205 or STA 301 or 363 or 368. Cross-listed with ISA.

### **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.

### **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:* ISA 291 or STA 363 or STA 401/501 or 671; or permission of instructor.

### **STA 404/504 Advanced Data Visualization (3)**

Communicating clearly, efficiently, and in a visually compelling manner using data displays. Identifying appropriate displays based on various data characteristics/complexity, audiences, and goals. Using software to produce data displays. Integrating narratives and data displays. Critiquing visualizations based on design principles, statistical characteristics, and narrative quality. CAS-QL.

*Prerequisite:* at least one of the following: STA 261, 301, 368, 671; IMS 261; ISA 205; or by permission of instructor. Cross-listed with IMS/JRN.

### **STA 427/527 Introduction to Bayesian Statistics (3)**

Introduces the Bayesian approach to statistical inference for data analysis in a variety of applications. Topics include: comparison of Bayesian and frequentist methods, Bayesian model specification, prior specification, basics of decision theory, Markov Chain Monte Carlo, Bayes factor, empirical Bayes, hierarchical models, and use of computational software.

*Recommended prerequisites:* STA 401/501 and MTH 222.

### **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:* ISA 291; or STA 363 or 401 or permission of instructor.

Cross-listed with ISA.

### **STA 450 Advanced Topics Statistics (1-4; maximum 6)**

Topics in statistics that are extensions or applications of ideas covered in previous statistics courses. Previous statistics courses at the 4xx level is typically assumed.

### **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 ISA 291.

### **STA 467/567 Statistical Learning (3)**

Introduction to methods of statistical learning, with emphases on both theory and implementation. Topics include supervised and unsupervised learning methods, including linear and nonlinear models for regression and classification, additive models, recursive partitioning methods, neural networks, support vector machines, association rules, and cluster analysis; ensemble methods; and methods of model assessment and selection.

*Prerequisite:* STA 463/563, or permission of instructor.

### **STA 471/571 Actuarial Exam Preparation Seminar: Probability (1)**

Solution and discussion of challenging probability problems such as those found on the first actuarial exam.

*Prerequisite:* STA 401/501; or permission of instructor.

### **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. CAS-QL.

*Prerequisite:* STA 463/563 or 363; or ISA 291.

### **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.

*Prerequisite:* STA 401/501 or permission of instructor. Credit not awarded for both STA 483/583 and ISA 444. Cross-listed with CSE.

**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, Summer only.

*Prerequisite:* Licensure in secondary school mathematics or permission of instructor.

**STA 635 Introduction to Predictive Analytics (3)**

Introduction to foundational statistical methods and techniques relevant to predictive statistical modeling. Topics include simple and multiple linear regression models, logistic regression models, nonlinear regression, and classification and regression trees. Widely used statistical software packages will be introduced and used extensively in the course.

Cross-listed with ISA.

**STA 637 Statistical Programming and Data Visualization (3)**

Introduction to programming concepts, techniques and strategies for preparing, managing and displaying data in the context of statistical analyses. Topics include cleaning, combining, extracting and reshaping data sets; invoking statistical procedures and managing the results as data sets; creating appropriate production-quality tabular and graphical displays of data and results of analyses. Emphasis on widely used software packages for statistical analysis and visualization.

**STA 650 Topics in Statistics (1-4; maximum 8)**

Topics selected from an area of statistics. Offered infrequently.

*Prerequisite:* permission of instructor.

**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 566.

**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, queueing 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:* STA/MTH graduate standing or permission of instructor.

**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 graduate standing or permission of instructor.

**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 graduate standing 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 graduate standing or permission of instructor.

**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 672 Statistical Modeling and Study Design (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.

**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 graduate standing 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 graduate standing 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)**

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. 3 Lec.1 Lab. IVB, LAB.

**EDT 190 Introduction to Education (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 202 Global Childhood Education: Diversity, Education & Society (3)**

This course focuses on increasing awareness, sensitivity, and understanding of the diverse cultural, ethnic, linguistic, religious, and family backgrounds of children in education from broader perspectives. It provides students with an opportunity to explore the multicultural American society as well as the global communities. It starts by learning about ourselves that is a basic foundation to understand and respect others. It also offers a chance to see, feel, and think in a different way than we have ever had before. Such mental, emotional, and intellectual "bothering and challenging" is consistently planned and encouraged in this course in order to reexamine our taken-for-granted assumptions and expectations. This course discusses the critical issues by connecting them to application into educational practice and settings. Therefore, it attempts to incorporate the various meanings and concepts of social justice, equality, multiculturalism, diversity and globalization into education.

**EDT 212 Applied Philosophy for Education (3)**

This course is designed to provide preservice and inservice teachers with a foundational knowledge of philosophy, including epistemology, logic, and ethics, primarily to prepare them to teach social studies education in public schools.

**EDT 221 Teaching English Language Learners in PK-12: Culture & Second Language Acquisition (3)**

The first of three sequenced courses in the Teaching English Language Learners (TELLs) certificate, EDT221 TELLs in PK-12: Culture & SLA provides the theoretical foundations necessary for PK-12 teachers to work successfully with English Language Learners (ELLs) in the mainstream classroom. A field experience component, coupled with comprehensive case study assignments, enables teachers to obtain real-world understanding of the cultural and language development issues facing ELLs, their families and their teachers in schools.

**EDT 225 Family School and Community Connections (3)**

This course focuses on the theory and practice of joining families, communities, and schools to support student learning, development and success in education. Strategies to improve communication and collaboration are emphasized with a focus on family types, cultures, economic conditions, school systems, community services, political forces, advocacy groups, and other factors that impact children and their families. Cross-listed with FSW.

**EDT 246 Foundations of Language and Literacy (3)**

Explores the foundations of language and literacy development as content background for effective language and literacy instruction, birth to age 21. Topics include theories of language and literacy development, history of reading and writing instruction, literacy and technology, cultural and linguistic aspects of literacy, and various perspectives and models of literacy learning.

*Prerequisite: admission to the program. (For early and middle childhood majors).*

**Note:** Early Childhood education majors take 246E as part of block #1 and Middle Childhood education majors take 246M in the early field block. Integrated English/Language Arts majors take EDT 246A prior to EDT 346A.

**EDT 251 Research Skills and Strategies - Library & Internet (2)**

Build research skills and improve your search strategies using current technology, online tools, and the Internet. Progress through the research process as you apply critical thinking to your information need. Develop skills in finding and evaluating information and citing sources. Learn to use library services and resources including the online catalog, research databases, and print and digital collections. 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. Part of early field block.

*Prerequisite: admission to and retention in Middle Childhood cohort.*

**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: MTH 151 or MTH 153.*

**EDT 272E Introductory Child Development: PreBirth through Age 8 (3)**

Knowledge of early childhood development to facilitate optimal growth and learning in young children. Emphasis is on all domains and universal characteristics and needs of children and recognition of the unique and highly individualized characteristics and needs of each child within complex social, linguistic and cultural contexts. From current theory and research, advocacy of developmentally appropriate practices and strengthened family interactions. Focuses on NAEYC, standards, and diversity. Part of ECE Block #1.

*Prerequisite: admission to ECE Program. Concurrent courses: EDT 315E and 246E.*

**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. Part of middle childhood content methods block. (Last offering for this course is Fall semester, 2012).

*Prerequisite: retention in middle childhood cohort at instructional procedures waypoint.*

**Advanced Teacher Education Courses****EDT 315E Teaching with Children's Literature Across the ECE Curriculum (3)**

Focuses on selecting and using quality literature with young children, with emphasis on various genres and content areas, and provides methods of fostering literacy growth through literature for all early childhood learners, ages 3-8.

*Prerequisite: admission to ECE program. Concurrent courses: EDT 272E and 246E in ECE Block #1.*

**EDT 317E Teaching Science: Early Childhood (3)**

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 through 2012-13. Beginning in 2013-14, this course will be part of the ECE Block#2 and the pre-requisite will be successful completion of Block #1.*



**EDT 318E Mathematics in Early Childhood (3)**

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 through 2012-13. Beginning in 2013-14, this course will be part of the ECE Block#2 and the pre-requisite will be successful completion of Block #1.*

**EDT 323 Teaching English Language Learners in PK-12: Instructional Theories & Practices (3)**

The second of three sequenced courses in the Teaching English Language Learners (TELLs) certificate, EDT 323 TELLs in PK-12: Instructional Theory & Practices provides the instructional foundations necessary for PK-12 teachers to work successfully with English Language Learners (ELLs) in the mainstream classroom. A field experience component, coupled with comprehensive case study assignments, enables teachers to obtain real-world understanding of the instructional and assessment issues facing ELLs and their teachers in schools.

**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 Teaching Language and Literacy Across the ECE Curriculum (3)**

Teaching and integrating language, reading, and writing including planning, implementing, and reflecting on effective methods, materials and formal and informal assessment measures. Topics of study include cultural and linguistic diversity; literacy and 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, vocabulary, and written composition. Laboratory and field experiences are an integral part of the course.

*Prerequisite: retention in ECE Program and successful completion of early field block; EDT 272E, 246E, 315E and EDP 256E through 2012-13. Beginning in 2013-14, this course will be part of the ECE Block#2 and the pre-requisite will be successful completion of Block #1.*

**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 fall semester 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 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 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. One of the courses in the 4-5 endorsement for ECE students or for licensed ECE teachers.*

**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 (3)**

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 through 2012-13. Beginning in 2013-14, this course will be part of the ECE Block#2 and the pre-requisite will be successful completion of Block #1.*

**EDT 419/519 Teaching Internship (1-16)**

Planned and supervised learning experiences in which students demonstrate knowledge, skills, abilities, and values appropriate to teaching in educational settings. Typically 15 weeks in the schools is required. Frequent conferences with university supervisors and cooperating teachers.

*Prerequisites: completion of all instructional procedures courses required in the licensure program; required GPA 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 Classroom Management (3)**

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 fall semester 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 Teaching English Language Learners in PK-12: Active Learning & Literacy (3)**

The third of three sequenced courses in the Teaching English Language Learners (TELLs) certificate, EDT425 TELLs in PK-12: Active Learning & Literacy provides the instructional foundations necessary for PK-12 teachers to work successfully with English Language Learners (ELLs) in the mainstream classroom. A field experience component, coupled with comprehensive case study assignments, enables teachers to obtain real-world understanding of the linguistic and literacy issues facing ELLs and their teachers in schools.



**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).

*Prerequisite:* 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:* retention in your social studies education cohort at the instructional procedures waypoint, including EDT 433. Part of social studies methods block.

**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 pursuing 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 Phonics, Word Study, and Spelling Instruction in ECE (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 through 2012-13. Beginning in 2013-14, this course will be part of the ECE Block#3 and the pre-requisite will be successful completion of Block #2.

**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, grades 4-9. Examines diagnostic and instructional procedures related to special needs of very low to high achieving readers.

*Prerequisite or co-requisite:* EDT 346M. Retention in cohort and successful completion of early field block in middle childhood education.

**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.

*Prerequisite:* retention in foreign language cohort at the instructional procedures waypoint.

**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.

*Prerequisite:* EDT 444/544 and Advanced Low score on the ACTFL Oral Proficiency Interview (OPI). Concurrent course(s): EDT 446L/546L.

**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 through 2012-13. Beginning 2013-14, this course will no longer be offered.

**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.

*Prerequisite or 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.

*Prerequisite: successful completion of an early childhood social studies methods course such as EDT 417E. One of the courses in the 4-5 endorsement for ECE students or for licensed ECE teachers.*

**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](http://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. One of the courses in the 4-5 endorsement for ECE students or for licensed ECE teachers.

**EDT 455 Capstone Seminar: Comparative Education in Europe or China (4) (4)**

This class is conducted in both Oxford and Europe or China. Students spend time in classrooms abroad observing educational practices in another culture(s) for the purpose of identifying similarities and differences between the U.S. and other Europe or China. The class is approved to meet the capstone requirement. Format, themes, and topics may differ by section.

**EDT 461/561 Grant Writing Skills and Methods (3)**

This graduate and permission only senior level course offering will introduce approved seniors and graduate students to systemic methods for reviewing "Requests for Funding Proposals" (RFP), creating pre-writing documents to support creating a grant application, and applying collaborative methods for writing quality grant applications to foundation, federal, state and community funding sources. Web-based sources for grant funding will be introduced. The course will introduce a 4 stage/32step process for analyzing complicated Requests for Funding Proposals (RFPs), supporting the grant application writing process and applying for funding. The course will include many recommendations for technology-supported grant application development and the final grant editing process. Novice and more experienced grant writers may work in writing teams to create and submit real grant applications on behalf of existing organizations, agencies, school districts or individual initiatives. This course will be offered as a two week, blended learning experience with face-to face introductory and closing sessions. The remainder of the course will be organized in four, graded, online modules.

**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 such as EDT 318E. One of the courses in 4-5 endorsement for ECE students or for licensed ECE teachers.*

**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: graduate standing.*

**EDT 473E Early Childhood Synthesis: Negotiating the Complexities of Teaching (3)**

Synthesis of elements presented earlier in ECE program. Site-based experience is an integral part of the course, as students engage with the simultaneous elements of the child, culture, community,

content/curriculum, mandates, pedagogies, personal identity, and the teaching life. Emphasis is on building relationships, developing ethical commitment, and on learning skills toward integrated-content project planning that is responsive to the needs, interests, and culture of the children, school, and community. Part of early childhood literacy block (through 2012-13). Beginning Spring, 2014, this course will be part of Block #3 and the pre-requisite will be successful completion of Block #2.

**EDT 474E Classroom Management & Student Guidance in Early Childhood (3)**

This is a course for early childhood educators that integrates the ways in which children learn and develop with the essential knowledge, skills, and dispositions teachers need in order to organize and manage the classroom context, guide student behavior, and promote effective relationships with students, families, colleagues, and other stakeholders. Topics examined in the course include: developmentally appropriate media, materials, and practices; classroom organization and management; student guidance; self-awareness; leadership of the classroom as social context; and contemporary issues in public education.

*Prerequisites: EDT 272E, 246E, 315E and EDP 256E. Concurrent courses: EDT 317E, 417E, 346E and 442E, part of ECE content block 2012-13. Beginning 2013-14, this course will be part of Block #2 and the prerequisite will be successful completion of Block #1.*

**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) MPC**

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)**

Critical analysis of research and theory of language and literacy development and instruction with particular emphasis on the cognitive, linguistic, and socio-cultural factors that influence language and literacy learning and teaching.

*Prerequisite: graduate standing or permission of instructor.*

**EDT 606 Curriculum Innovation and Transformation through Understanding and Design (3)**

This course is designed for educators interested in learning more about the curriculum in use in classrooms, schools, and community organizations, and the possibilities for shaping and transforming curriculum and teaching practices. The course will introduce students to important issues in curriculum theory and practice. Cross-listed with EDL.

**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 Teaching with Literature for Children (3)**

Intensive study of children's literature and its use in literacy instruction. Topics include: critical analysis of literature, diversity of forms and genres, use of literature that represents various cultural identities and contexts, and support of literary discourse among students.

*Prerequisite: graduate standing or permission of instructor.*

**EDT 627 Teaching with Literature for Adolescents and Young Adults (3)**

Intensive study of adolescent and young adult literature and its use in literacy instruction. Topics include: critical analysis of literature, diversity of forms and genres, use of literature that represents various cultural identities and contexts, and support of literary discourse among students.

*Prerequisite: graduate student standing or permission of instructor.*

**EDT 632 Literacy Assessment and Instruction (3)**

In-depth examination of classroom aspects of literacy assessment and instruction in reading and writing. Includes experience in assessing aspects of literacy development and analyzing assessment data to group students and design instruction for students with diverse needs (topics include: reading processes & miscue analysis, reading fluency, comprehension, literary response, and writing).

*Prerequisite: graduate standing or permission of instructor.*

**EDT 635 Clinical Literacy Practicum (3)**

Advanced supervised practicum experience involving assessment and instruction of public school students experiencing reading and writing difficulties. Involves writing reports of assessment and instruction for tutees' parents and teachers.

*Prerequisites: EDT 603, 632, 642.*

**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.

*Prerequisites: EDT 603, 632, 635, 642, and 646. 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: graduate standing or permission of instructor.*

**EDT 643 Language and Discourse (3)**

In-depth examination of linguistic and cultural aspects of diverse populations as they affect literacy learning and teaching. Includes practical applications of theories of language and discourse. Emphasis on designing classroom discourse environments and home and community connections to promote equity and foster language and literacy development of Pre-K-12 students with diverse backgrounds and needs.

*Prerequisite: graduate standing or permission of instructor.*

**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: graduate standing or permission of instructor.*

**EDT 648 Data-Informed Decision Making in Education (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.

*Cross-listed with EDL.*

**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. Offered Infrequently.

*Prerequisite: at least nine semester hours of any social science.*

**EDT 660 Seminar in Mathematics Education (1-3; maximum 6)**

Current issues and research in mathematics education.

*Prerequisite: 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 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: 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: graduate standing.*

**EDT 690 Graduate Capstone Experience in Education (3)**

Provides students the opportunity to engage in a culminating project that demonstrates critical thinking, understanding contexts, and reflection and action using the course work and experiences from the graduate program. The end product of the individualized experience could include a research paper, journal manuscript, written comprehensive examination, professional portfolio with components indicative of a state/national master teacher portfolio, or other approved project. The project will also serve as part of the master's examination.

*Prerequisite: completion of at least 12 graduate hours. It is expected that the student will have completed the majority of the courses in his or her program. Co-requisite: Submission for Institutional Review Board (IRB) approval within the first two weeks of the semester if conducting research with human subjects.*

**EDT 700 Thesis (1-12)**

## THEATRE COURSES (THE Creative Arts)

**THE 101 Introduction to Theatre: Drama and Analysis (3) MPE, 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. IIA. CAS-B.

*Co-requisite: THE 103.*

**THE 103 Introduction to Theatre: Production and Performance (1) MPE, MPT**

Practical application of techniques in performance, technical production, and management. Involves a minimum of 40 hours per semester, planned around student's schedule and demands within area of participation. IIA.

*Co-requisite: THE 101.*

**THE 107 The Theatre Major: an Introduction to Theatre Resources and Skills (1)**

This course is an orientation to the resources, personnel, policies, production season, and student organizations in the theatre department as well as related resources across campus. Students will

build a variety of skills necessary for success including time management, academic honesty and collaboration. Open to Theatre Majors only.

**THE 123 Acting for the Non-Major: Text and Performance (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 degree in theatre. IIA

**THE 131 Principles of Acting (3)**

Introductory course 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. Open to theatre majors and minors only.

**THE 151 Stage Makeup (1)**

Principles and techniques of makeup for stage. Proper care and use of stage makeup products and related supplies projects in relation to character analysis and the actor's own facial features. Preparation for possible production makeup design or makeup crew opportunity.

**THE 191 Experiencing Theatre (3) MPF, MPT**

This course introduces non-majors to all aspects of the theatre art, both in a large group setting and in small group break-outs. This course will help students appreciate the theatre as future audience members by engaging them in a hands on look at how theatre is made. Students will both watch live theatre and create live theatre. Credit cannot be applied to the theatre major or minor. 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 a minimum of 40 hours per semester, arranged around student's schedule and demands within area of participation. Registration through consultation with theatre faculty member required.

**THE 205 Costume Construction Laboratory (1)**

This class is intended to provide an inside perspective on both the artistic and technical side of costume technology. The student will utilize the methods, tools and theories covered in the THE 253 lecture to help produce costumes for theatrical productions in a collaborative supervised setting.  
*Co-requisite: THE 253.*

**THE 206 Theatre Lighting Laboratory (1)**

Practical implementation of the techniques, tools, and processes taught in THE 254 (and that are conventional to theatrical lighting and sound technology), through participation on a "stage-electric" crew.  
*Co-requisite: THE 254.*

**THE 207 Scenery and Props Lab (1)**

This lab, taken in conjunction with THE 255, is intended to provide the student with hands-on experience building and assembling theatrical scenery and properties for the Miami University Department of Theatre. Involves a minimum of 40 hours per semester, planned around the student's schedule and the demands of various productions. Students will also operate tools while working on projects not intended for use in Theatrical productions, as a way of gaining experience.  
*Co-requisite: THE 255.*

**THE 208 Scene Painting Laboratory (1)**

Practical application of the techniques, tools and processes taught in THE 258 by serving as a scene painter on realized theatrical production.  
*Co-requisite: THE 258.*

**THE 210 The Theatrical Toolbox (1-2; maximum 3)**

This course is designed to introduce students to a highly specialized skill/technique in theatre not offered in our permanent curriculum. A specific focus might include one of the following: stage combat, clowning, solo drama, puppetry, projection design or other. Course will be taught principally by visiting artists.

**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: 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 Scene Study (3)**

Study and development of the foundational elements for scene study.

*Prerequisite: THE 131.*

**THE 238 Playwriting Through Improvisation (3-4; maximum 4)**

A class about the making of theatre from the actor's imagination. Introduces students to existing and emerging techniques of text creation through improvisation. We place our 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. 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. Open to theatre and music majors only.

**THE 243 Movement and Voice for Actors (3)**

This course lays the foundation for building a healthy, flexible and expressive body and voice. Students will learn alignment, anatomy, and the physiology of voice (breath, phonation and resonance). Exploration/integration of sound and movement to create performance. Special skills may include: juggling, viewpoints, character voice/movement, Alexander Technique, and others.

*Prerequisite: THE 131 or permission of instructor.*

**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. Offered infrequently.

*Prerequisite: THE 255 or permission of instructor.*

**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.

*Co-requisite: THE 205.*

**THE 254 Fundamentals of Lighting and Sound (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.

*Co-requisite: THE 206.*

**THE 255 Fundamentals of Scenery Construction and Props (3)**

This course is intended for all beginning students of theatre technology and the art of visual production for live performance. The major objectives of this course are to provide the students with a basic knowledge of the techniques, tools and materials of scenery and prop fabrication and to introduce artistic and practical considerations that underlie them.

*Co-requisite: THE 207.*

**THE 258 Scene Painting Fundamentals (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.  
*Co-requisite: THE 208.*

#### **THE 261 Intermediate Ballet (2)**

Intermediate Ballet expands upon the foundations of Beginning Ballet, the understanding of the basic positions and steps. The focus will be on mastering the basic positions and steps while introducing more complicated exercises both at the barre and the center. Center floor work will include the development and practice of adagio and allegro combinations as well as turns and leaps (jetes). Students will be given opportunities of perfecting their technique and musicality in longer sequences, both at the barre and center floor. A class dance will be learned and the techniques covered in the class will be applied. Students will also be given the opportunity of choreographing an individual phrase for the class dance. Ballet history is also explored as a source for understanding where certain traditions originated. The course also includes some outside written work and performance attendance to better provide a background necessary to the appreciation of dance as a creative art form.  
*Prerequisite: KNH 110A.*

#### **THE 262 Intermediate Modern Dance (2)**

Intermediate Modern Dance expands upon the fundamentals covered in Beginning Modern Dance and explores more deeply improving anatomical awareness, increasing strength and flexibility, expanding the modern dance vocabulary, and developing flow and dynamic range. The students will demonstrate, define, and perform demonstrating an understanding of these concepts. A class dance will be learned and students will also be responsible for choreographing a partner phrase for the class dance. The class will critique, discuss and analyze line, design, technique, choreography, and dynamic qualities through personal performance, class discussions, posted videos, and concert critiques. Along with discussing the blurring of lines between modern and contemporary dance, the course also includes some outside written work and performance attendance to better provide a background necessary to the appreciation of modern dance as a creative art form.  
*Prerequisite: KNH 110G.*

#### **THE 271 Dance Theatre Practicum (1; maximum 2)**

The course is designed for the student to experience rehearsing a dance for performance, possibly performing a dance in concert, as well as practical experience in the non-performing elements of dance production, including dance lighting, stage management, sound, set, and public relations. Students might also learn new or repertory choreography created by dance faculty or guest artists and are frequently active participants in the choreographic process. Students are also expected to complete pre- and post-production assignments. The Practicum provides students the opportunity to earn course credit while fulfilling a production assignment on a dance production. The emphasis of the course is on professional decorum and a willingness to become a valuable member of the production team. Open to all university students.

#### **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 301 Professional Practice in Theatre (1; maximum 2)**

This course is designed to prepare students to enter professional theatre. Students will meet throughout the semester with working theatre professionals/guest artists in a series of workshops, seminars, and intensives in order to learn more about how to interface with the profession following graduation.  
*Prerequisite: sophomore standing.*

#### **THE 314 Playwriting (4)**

Theory, technique, and practice of playwriting.  
*Prerequisite: permission of instructor. Cross-listed with ENG.*

#### **THE 340 Internship (0-20)**

Preprofessional program for exceptionally qualified students. Must be arranged through consultation with departmental advisor.

#### **THE 341 Fundamentals of Directing (3)**

Aesthetic principles, analysis, and exercises in composition, picturization, blocking, business, communication, and leadership.  
*Prerequisite: THE 131 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 343 Speech and Dialects (3)**

This course focuses on the development of the basic skills for effective speech/text work on stage. Introduction of IPA and speech skills in the acquisition and performance of a variety of dialects and accents.

*Prerequisite: THE 131 or permission of instructor.*

#### **THE 351 Dance History (3)**

The course is designed to introduce the student to the vast discipline of dance. Students will view and read about dance as an art form and as a theatrical vehicle and become more aware of the analysis of form and style and elements of critique in the various genres of dance, most specifically ballet and modern/contemporary dance. The course will trace the American dance scene and its impact on and reflection of American culture.

#### **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. 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. 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) MPT**

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) MPT**

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.  
*Prerequisite: THE 231.*

#### **THE 437/537 Auditions (2)**

Preparation for entry into graduate schools, professional internships, or repertory companies for actors.  
*Prerequisites: THE 101, THE 231, junior standing and/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 442/542 Women and Theatre: The Politics of Representation (3)**

Examines the ways in which gender is a performed cultural construct, made up of learned values and beliefs. Also introduces ideas about race, ethnicity, and sexuality, and the ways in which these contribute to the cultural construction of identity. Uses theatre to examine societal patterns of power and assumptions about suitable roles and behavior for women. The course will engage students in both text-based and performance-based activities, helping students practice embodying and responding to texts in bold, experimental, intellectually rigorous ways. An optional graduate student component will help those students develop their own ways to teach these materials in the future. Cross-listed with WGS.

**THE 450/550 Special Topics in Theatre Design and Technology (3)**

Investigation of advanced topics or techniques in theatre design and technology. Might include areas such as design theory, specific design styles or approaches, rendering techniques, draping and patterning, costume crafts, digital technologies, welding, foam carving. Topic varies.

**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 251 or ART 111 or ARC 101.*

**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 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 254 or permission of instructor.*

**THE 455 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 465 Collaboration in Theatre Design & Technology (2)**

Development and integration of skills learned in previous design and technology classes. Design teams will work collaboratively to develop a design concept and carry that concept through to execution phase, with particular emphasis placed on collaboration between designers and technical personnel. Teams may include directors, scenic, lighting, costume, and sound designers, tech directors, props masters, scenic charge artists, and costume shop managers.  
*Prerequisites: THE 251 and one of the following: THE 252, 441, 451, 452, 454, 456 or consent of instructor.*

**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. Offered infrequently. CAS-B.

**THE 494/594 London Theatre (3)**

This course is an introduction to theatre in London. Students learn about London's rich theatrical history, attend performances of professional productions, and discuss them in their critical and cultural context. This course is offered as part of the Department of Theatre's study abroad program in London and it is one of three courses required to complete the thematic sequence, "London Theatre."

**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 110 Introduction to Contemporary Topics (1)**

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 120 Peer Leadership Practicum (1)**

Trains students to take a leadership role in inquiry, peer education, and campus outreach.

**WST 201 Self and Place (3)**

Investigates various disciplinary models for how place and identity interact in American culture, and, specifically, how the local environment, including geographical location, ethnic traditions, and family traditions, impact our lives. Students draw upon their own life experiences to begin to formulate their intellectual interests. IIB, CAS-B-Humanities OR CAS-C-Social Science.

**WST 204 Introduction to Service-Learning (3)**

Focuses on the integration of service and community engagement with academic goals as pedagogy. Students will learn how to identify authentic community needs and match them with academic goals. Students will participate in Service-Learning throughout the semester.

*Cross-listed with SJS.*

**WST 231 Interdisciplinary Inquiry (3)**

Introduction to the relevance of interdisciplinary approaches to learning in the arts, humanities, social sciences, and sciences.

Explores the process of inquiry-based discovery through instructor-generated inquiries, student-generated inquiries, and discipline-specific methods and techniques. Particular theme or topic will differ each semester. CAS-B OR CAS-C.

**WST 251 Individualized Studies Seminar (1)**

Provides students with the tools to chart their personal plan of study.

**WST 301 Interdisciplinary Problems and Questions (3)**

Considers a complex topic from multiple perspectives. Identifies 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 OR CAS-C.

**WST 304 Theory Into Action: Service-Learning (3)**

Focuses on sustaining community and faculty partnerships as part of cultivating a culture of service and reflection through Service-Learning.

*Prerequisite: SJS/WST 204 or instructor approved course. Cross-listed with SJS.*

**WST 315 Inquiry Process Workshop (2)**

Course explains the techniques and methods used in inquiry, the investigative approaches used in different disciplines, and the process of peer review. The course is designed for students in any major who would like to learn about the inquiry process and serves also as an integral part of the training for Western Mentors.

**WST 321 Developing Interdisciplinary Projects: Exploring Ways of Knowing (3)**

Investigates a complex topic with specific attention to methods 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 knowledge. Based on course topic, students identify and critique the distinctive epistemologies associated with particular disciplinary and interdisciplinary practices to integrate multiple perspectives on that topic. CAS-B-Humanities OR CAS-C Social Science.

**WST 322 Developing Interdisciplinary Projects: Art and Politics of Representation (3)**

Investigates a complex topic with specific attention to developing competence in the analytical and rhetorical tools for interdisciplinary inquiry in the arts, humanities, sciences, and/or social sciences. Based on course topic, students identify and analyze representational practices (e.g., written texts, performances, new media, statistical surveys, scientific studies) to promote the development of creative strategies for representing and addressing complex problems and questions. CAS-B OR CAS-C.

**WST 341 Interdisciplinary Synthesis and Action (3)**

Integrates diverse methods of inquiry to assist the development of student outreach projects that synthesize learning about 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. CAS-B OR CAS-C.

**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.*

**WST 421 Senior Project Proposal Workshop (3)**

Supports student planning of senior project by focusing on proposal formulation, action plan, literature analysis, methodology, and project evaluation/assessment; culminates in public defense of full proposal with program faculty and students.

**WST 444/445 Senior Workshop and Project (3, 2) MPC**

Provides a forum in which students share with peers the process of writing, revising, researching, or otherwise executing the planned project. Work with direction of a faculty advisor. Students work individually or in teams to develop means of senior project delivery, e.g., by submission of research paper suitable for conference presentation or journal publication; theatrical or multimedia performance; gallery showing.

*Prerequisite: senior standing and completion of preceding WST requirements.*



## WOMEN'S, GENDER, AND SEXUALITY STUDIES COURSES (WGS Arts and Science)

**Note:** Cross-listed courses are available in Women's, Gender, and Sexuality Studies. For more information, consult the listing in the appropriate department.

### WGS 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. IIC, Cul. CAS-C.

### WGS 202 Introduction to GLBT Studies (3) MPF, MPT

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. IIB, Cul. CAS-B.

### WGS 203 Sociology of Gender (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 SOC.*

### WGS 204 Gender, Science, & Technology (3)

WGS 204 will introduce students to the study of science and technology from the critical lens of interdisciplinary gender studies. We will explore questions such as: What does science tell us about the nature of sex or gender differences? How have ideas about gender and sexuality structured the basic practices and language of science and technology? What are feminist critiques of science and technology? How have women contributed to science (especially in contexts where they were barred from doing so)? And what does a feminist science look like? Why have women and people of color been, historically, underrepresented in STEM disciplines and what can be done to change this underrepresentation? CAS-QL.

### WGS 211 Writing with Purpose: Interdisciplinary Inquiry and Communication (3)

This is an intermediate level course which enables students to investigate and discuss interdisciplinary practices of knowledge creation and dissemination. Students will practice a variety of writing and other communication strategies necessary for the effective dissemination of ideas to interdisciplinary audiences and the general public, and can expect to gain experience in working with a wide spectrum of interdisciplinary research, tools and methods while engaging intellectually in interdisciplinary modes of thinking, reading, listening, and speaking.

*Cross-listed with AAA/AMS/BWS/LAS.*

### WGS 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/SOC.*

### WGS 232 American Women Writers (3) MPT

Survey of American Women's writing from Anne Bradstreet to the present.

*Cross-listed with ENG. CAS-B.*

### WGS 233 British Women Writers (3) MPT

Works by British women, from the 19th century to the present.

*Cross-listed with ENG. CAS-B.*

### WGS 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.*

### WGS 237 GLBTQ Literature (3)

Study of literature by and about sexual minorities, including Gay, Lesbian, Bisexual, Transgendered and Queer identities, cultural contexts, and social movements.

*Cross-listed with ENG. CAS-B.*

### WGS 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 KNH.*

### WGS 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/EDP/SOC.*

### WGS 287 Enter the Diva: Women in Music (3)

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. Cross-listed with MUS.*

### WGS 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: WGS 201. Open to majors and minors or other students with permission of instructor.*

### WGS 302 Geography and Gender (3)

This class adopts a geographic approach to the study of gender relations. The role of space and place in shaping the diversity of gender relations throughout the world will be considered. Through case studies the importance of gender relations in understanding a variety of issues will be stressed. Overall, we will explore how geography shapes gender relations and how gender produces a variety of geographies.

*Cross-listed with GEO.*

### WGS 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.*

### WGS 313 Marriage Across Cultures (3)

This class engages feminist theory and gender studies to explore the consequences of different types of marital formations (polygamous as well as monogamous) for the lives of women and men in selected Western and non-Western cultures.

*Cross-listed with AAA/REL.*

### WGS 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.

### WGS 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/LAS.*

### WGS 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.

*Prerequisites:* PSY 221 and 294. *Cross-listed with* PSY.

### **WGS 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* REL.

### **WGS 334 Women's Religious Experiences in the Ancient Mediterranean World (3) MPT**

Places women's lives and cultic experiences at the center, introducing a range of religious traditions from ancient Mesopotamia, ancient Israel, and Egypt, to Greece and Rome, as the database for an analysis of women's relationships to myths, temple cults, festivals, mystery rites, domestic cult, private and immigrant cults, and magic from the second millennium BCE to the 4th century CE. The course emphasizes the application of modern critical approaches to the ancient evidence including material culture and epigraphy. Offered infrequently.

*Cross-listed with* REL.

### **WGS 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 pay 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.

### **WGS 336 Ancient Sexualities (3)**

Examines the written and visual evidence for ancient sexual practices, as well as ancient attitudes towards these practices as found in ancient law, philosophy, love poetry, novels, and other texts. Our reading of primary sources will be informed by modern writings on gender and sexuality. We will also engage with recent debates about the ideologies reflected in ancient codes of sexual conduct. Through a close reading of a variety of ancient Greek and Roman texts and images, together with contemporary interpretive readings, we will attempt to reach not only a fuller understanding of some central features of the cultures of Greece and Rome, but also, by holding up the mirror of antiquity to our own beliefs and practices, to arrive at a more critical consideration of how we think about sex and gender today.

*Cross-listed with* CLS.

### **WGS 345 Women, Religion and Social Change in America (3) 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 WGS 201 or by permission of instructor.

*Cross-listed with* AMS/REL.

### **WGS 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* POL.

### **WGS 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. Offered infrequently.

*Cross-listed with* POL.

### **WGS 351 Cultural Politics of Gender and Sexuality in Asian/America (3)**

Intensive interdisciplinary study of imaginative representations of the encounters between "Asia" and "America," broadly conceived, particularly the entangled relations among their diverse constituencies in the contexts of colonialism and globalization. Key topics include feminist critique of gendered violence and human rights issues; Euro-American militarism and sex tourism; the

emergence of new categories of sex, gender, and kinship as lived experiences mediated by transnational consumer culture and institutional structures; masculinity and Asian diasporic nationalisms; pan-Asian movements against racism, colonialism, and neoliberalism both in Asia and the U.S.; and the emergence of new critical, artistic and aesthetic practices.

*Cross-listed with* AAA/ENG.

### **WGS 355 Feminist Theory (3) 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* PHL.

### **WGS 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.

### **WGS 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. CAS-B.

### **WGS 370 Selected Topics in Women's Studies (3)**

Examines specific aspects of women's roles, status, and experiences.

### **WGS 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/SOC.

### **WGS 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/DST/EDP/SOC.

### **WGS 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. Offered infrequently.

*Cross-listed with* HST.

### **WGS 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/HST.

### **WGS 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/POR.

### **WGS 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* AMS/HST.

**WGS 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:* WGS 201 and at least 12 semester hours in WGS courses, or permission of instructor.

**WGS 402/502 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.

*Prerequisite:* WGS 201 or WGS 202 or WGS 301. *Cross-listed with BWS.*

**WGS 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.*

**WGS 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.*

**WGS 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.*

**WGS 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.

**WGS 437/537 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/ENG.*

**WGS 442/542 Women and Theatre: The Politics of Representation (3)**

Examines the ways in which gender is a performed cultural construct, made up of learned values and beliefs. Also introduces ideas about race, ethnicity, and sexuality, and the ways in which these contribute to the cultural construction of identity. Uses theatre to examine societal patterns of power and assumptions about suitable roles and behavior for women. The course will engage students in both text-based and performance-based activities, helping students practice embodying and responding to texts in bold, experimental, intellectually rigorous ways. An optional graduate student component will help those students develop their own ways to teach these materials in the future.

*Cross-listed with THE.*

**WGS 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.*

**WGS 451/551 Family Violence (3) MPC**

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/SOC.*

**WGS 461 Gender, Sexuality 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 MAC.*

**WGS 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.

*Prerequisite:* (463) GTY 154; (563) GTY 602 or permission of instructor.

*Cross-listed with GTY/SOC.*

**WGS 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 WGS (WGS 401 or WGS 432)

**WGS 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. Offered infrequently.

*Cross-listed with ENG.*

**WGS 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.

*Prerequisite:* junior or graduate standing. *Cross-listed with KNH.*

**WGS 497/597 Methods of Social Justice Inquiry (3)**

Historical and critical overview of methods of inquiry used by scholars and activists seeking social justice, with emphasis on Participatory Action Research, Narrative Analysis, Community Psychology, Institutional Ethnography, and Mixed-Methods designs. Examines methodologies of previous and current research as framed by social constructionist epistemology, interdisciplinary conceptual frameworks, cultural values, and politics of advocacy for equity and fairness. Provides mentoring in application of techniques.

*Cross-listed with FSW/SJS/PSY.*

**WGS 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.

**WGS 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.

# Awards, Scholarships, and Prizes

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These are presented to outstanding students who earn special recognition. Contact the department or organization for current information.

## Accountancy

*Albers Accountancy Scholarship* to undergraduate minority students  
*Andersen Alumni Accounting Scholarship* to seniors and graduate students

*Arthur H. Carter Scholarship* to undergraduate and graduate students

*Dr. Gyan Chandra Memorial Scholarship* to an undergraduate accountancy student

*Crowe Horwath Scholarship* to undergraduate accountancy students  
*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 Scholarship* to undergraduate students  
*Ernst & Young Master of Accountancy Scholarship* to graduate students

*Rolland L. Ewell Accountancy Scholarship* to graduate students

*Grant Thornton LLP Accountancy 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 member

*Harry C. Lyle Scholarship* to an accountancy major

*Ogden Excellence in Accounting Award* to a junior

*Joseph B. and Esther K. Paperman Memorial Scholarship* to a senior

*PricewaterhouseCoopers Accountancy Scholarship* to a junior, seniors, a minority student, and a graduate student

*PricewaterhouseCoopers Kelly Booms Memorial Scholarship* to seniors

*Rankin Accountancy Scholarship* to a graduate student

*William H. Schaefer Scholarship* to a graduate student

*SS&G Scholarship* to an undergraduate student

*C. Roger Stegmaier Accountancy Award* to an undergraduate student

*William D. Stiles/Deloitte & Touche Memorial Scholarship* 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 Awards*

## 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 Zurbick Bishop 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*

*Richard H. and Leila Hentzen Smith Scholarship*

*URS Consultants Scholarship*

*Fred C. Whitcomb Scholarship in Interior Design*

*Charles E. and Elizabeth C. Stousland*

*John Weigand Founder's Scholarship in Interior Design*

*Joseph P. Veasey Award*

*Northwest Ohio Scholarship*

## Art

*Gertrude Davidson Brill Art Scholarship*

*Button Gallery Art Award*

*Nancy Francis Cady Art Scholarship*

*Ceramics Award*

*Clive F. Getty Art History Scholarship*

*Edna Kelly Scholarship*

*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. Hodgkin 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*

## Biology

*Outstanding Master Student Awards*

*Outstanding Doctoral Student Awards*

## Business Technology

*Angus Family Scholarship*

*Business Technology Advisory Council Scholarship*

*BTE Part Time Faculty Scholarship*

*Fastenal Scholarship*

*A. Alberta Holden Memorial Scholarship*

*Theodore & Kathleen Light Scholarship*

## Chemical, Paper and Biomedical 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*

*Charlene C. and George T. Jewett Endowed Scholarship*

*Kadant 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  
 Newpage Corp. Endowed Scholarship  
 Ohio TAPPI Endowed Scholarship  
 Ohio TAPPI Leadership Endowed Scholarship  
 OMNOVA Solutions Inc. Endowed Scholarships  
 OMNOVA Solutions Inc. Endowed Scholarship #2  
 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 Lerner Endowed 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  
 Weyerhaeuser Company Endowed Scholarship 2013  
 Bob and Barbara Williams Leadership Endowed Scholarship  
 xpedx Award

### Chemistry and Biochemistry

Harvey Clayton Brill Scholarship  
 John H. Buckingham Scholarships  
 William Hale Charch Scholarship  
 Chemistry Department Graduate Fellowship  
 Class of 1996 Chemistry Scholarship  
 J.A. Coulter Scholarship  
 Joseph A. Culler Chemistry Scholarship  
 R. Thomas Davidson Graduate Award in Chemistry  
 Gervaise O. Frost Memorial Award  
 Elmer G. Gerwe Chemistry Scholarship  
 Walter and Catherine Gordon Chemistry Fund  
 David Hershey Memorial Scholarship  
 Lester E. Imboden MD & I. Nadean Imboden Scholarship Fund  
 James Hershberger Memorial Undergraduate Research Award  
 Anastas Karipides Memorial Scholarship  
 Lubrizol Chemistry Scholarships  
 Raymond and Vonna McBride Scholarships  
 J. Earl Pruden Scholarship  
 William Hartmann Schwarz Scholarship  
 Parke G. and Dorothy M. Smith Scholarship  
 Robert A. Stalzer Memorial Scholarship  
 Clyde E. and Alice W. Stiner Scholarship  
 Malcolm E. Switzer, M.D., Award  
 Robert W. and K. Ursula Votaw Scholarship  
 E. O. and B. V. Weidner Chemistry Scholarship

### 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

### College of Creative Arts

The College of Creative Arts Divisional Scholarship  
 Walter L. Gross Jr. Family Fine Arts Scholarship

### Computer and Information Technology

Carl Bishop Information Technology Scholarship

Thatcher Computer and Information Technology 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  
 Disha Patel Scholarship  
 Lawrence J. Prince Memorial Scholarship

### Economics

Award in Macroeconomics to a senior major with a strong interest in macro/monetary economics  
 Gerald E. Flueckiger Award to 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

### Educational Psychology

The Douglas R. Miller Scholarship Award is awarded to a graduate student in the department of educational psychology whose scholarly and research interest is in human development

### English

The Robert Almy Awards in Critical Interpretation  
 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 for the Capstone in English  
 Composition Awards:  
 Reflective Analysis Award  
 Reflective Narrative Award  
 Literary Analysis Award  
 International Student Award (for essays written in ENG 108 or ENG 109)  
 Digital/Multimedia Composition Award (Sponsored by Bedford St. Martins)  
 Reflective Portfolio Award  
 Craver-Overton Scholarship  
 Dean's Scholarships to graduate assistants and associates whose records promise achievement in literary studies  
 Clara Vance Fixmer Scholarship (award alternates between Theatre and English departments)  
 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  
 Robert Kettler Memorial Scholarship  
 Jeffrey D. Keiner Scholarship for Study Abroad and Academic Enrichment  
 Bill Moeller Scholarship  
 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  
 The Spiro Peterson Memorial Scholarship  
 Mary Jo Priest Awards for Professional Writing  
 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

*Gordon D. and Mary S. Wilson Scholarship*

### **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

*Janette 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

### **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

*Arthur "Art" Limbird Award* to an outstanding sophomore major

### **Geology & Environmental Earth Science**

*Jack M. Brownstein* to a student attending the Geology Field Station based on merit and financial need

*Geology Graduate Student Professional Travel Fund* awards support graduate student travel to professional meetings

*Wayne D. Martin Field Fund*, awards for field travel and field research

*David L. Morrow Geology Field Study Fund* to a student attending the Geology Field Station, based on financial need

*Rocky Mountain Petroleum Geology Research Fund* awards support student field-based research/studies in Rocky Mountain region

*Wells Scholarship* to a student enrolled in GLG 411, for academic performance and need

### **Gerontology**

*Colonial Senior Services Research Award* to a graduate student for outstanding research or program development in long-term care

### **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*

### **Information Systems and Analytics**

*Academic Excellence certificates* to an analytics minor and an information systems minor

*Donald L. and Jane Dawley Management Information Systems Scholarship* to one or more ISA majors

*Roy Sandquist Family Department of Information Systems and Analytics Awards* to the outstanding senior major

### **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 GPA 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 GPA and involvement in campus activities.

### **Management**

*Academic Achievement in Management and Leadership 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**

*Robert & Jean Barker Penny Marketing Scholarship*

### **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.

*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 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 Awards* to a first-year student, a sophomore, and a junior

## Music

*Alice Mattmueller Alexander Memorial Voice Award*  
*Alumni Music Award*  
*George Barron Music Scholarship*  
*Jeffrey J. Blank Scholarship*  
*Nina J. Boyd Music Education Scholarship*  
*Dr. Richard Cambridge Memorial Scholarship*  
*Campus Owls Scholarship*  
*Frances Cole Memorial Scholarship*  
*Louise Glasgow and Eric E. Erickson Piano Scholarship*  
*Cynthia Boeke Fisher Memorial Award*  
*Pamela Fox Music History Award*  
*Friends of Opera Award*  
*Virginia Pierce Glick Music Education Scholarship*  
*Darrell and Wilma Grothen Music Scholarship*  
*The L. Eugene Hill Composition Prize*  
*George R. and Galen Glasgow Hoxie Scholarship* (alternates with art)  
*Jean Hartsock-Palmer Scholarship*  
*Christopher B. Huff Memorial Award*  
*Andrew Hummel Memorial Scholarship*  
*Alberta Lutz Ittel Music Education Scholarship*  
*Lacey/Stimple Highland Band and Drum Scholarship*  
*Lois D. Lehmkuhl Owl Award*  
*NFMC Herman and Mary Neuman Music Award*  
*Ohio Music Teachers Association Scholarship*  
*Piano Academic and Musical Achievement Award*  
*Pam Eileen Poccia Award*  
*Elizabeth Potteiger Cello Award*  
*Presser Foundation Scholarship*  
*Kapra MeridethQuain Memorial Scholarship*  
*Nina Palmer Quay Memorial Scholarship*  
*Mary Evans Rees Memorial Scholarship*  
*Richard L. Schilling Music Education Scholarship*  
*Dona Clare Sheley Presidential Scholarship*  
*Steven Shumway String Scholarship*  
*Richard A. Steuk Music Award*  
*Clyde E. And Alice W. Stiner Scholarship*  
*Jane Scott Hayes Telfair Music Education Scholarship*  
*Tom & Carol Tierney Piano Award*  
*Barbara J. Tuttle Memorial Scholarship*  
*Walt & Marcia Wood Scholarship*

## Nursing

*Ruth Ann Busald Nursing Awards* to graduating B.S.N. students  
*Carl and Katherine Densford Dreves Scholarships* to B.S.N. students  
*Vera Combs Iber M.D. Scholarship* to a Hamilton campus first-year B.S.N. student  
*Marion L. Kagler and Kim Kagler Carroll Award* to a Hamilton campus B.S.N. student  
*Jessie Myers-Eeles Scholarships* to B.S.N. students

## Philosophy

*Hall Prize in Philosophy* for best essay in 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 Pomerene Prize*  
*Gary Best Memorial Scholarship*  
*The Engel Prizes in Political Science*  
*Sara C. Glosik Scholarship*  
*Irma Karmol Memorial Scholarship*  
*David Koschik and Izumi Hara Student Enrichment Fund*  
*Robert "Ron" Hall Undergraduate Student Enrichment Fund for the Study of U.S. Civil Liberties*  
*The Ernst G. Siefert Capstone in Political Science*  
*Howard White Awards in Government*  
*David S. McLellan Award*  
*Kathleen Maher Zouhary Undergraduate Research Award*

## 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/Ivons 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 Military Excellence Awards* to a senior, junior, sophomore, and freshman with a military aptitude ranking within the top 25% of their respective class  
*American Legion Scholarship Awards* to a senior, junior, sophomore, and freshman within the top 25% of their respective class academically  
*American Veterans Award* to a senior who possesses scholastic excellence, a positive attitude, exemplary appearance, initiative, dependability, judgment, and confidence  
*Donovan Black Memorial Scholarship* to sophomore and junior Marine-option midshipmen who excel in academic, physical and military performance  
*Captain Frederick Brower Honorary Award* to a top Marine-option graduate, a Marine officer's sword and uniform stipend

*Burke Distinguished Senior Award*, in memory of Jane Doubet Burke, to a graduating female midshipman who demonstrates most outstanding potential for commissioned service, an officer's sword or \$500

*Burke Distinguished Student Award*, in memory of Jane Doubet Burke, to a female junior, sophomore, or freshman midshipman who demonstrates highest qualities of scholarship, leadership, and devotion to duty, \$1,000 scholarship

*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 a graduating midshipman who started the NROTC program as a college program student and has demonstrated sustained outstanding performance

*Daughters of Founders and Patriots of America Award* to a sophomore student who shows leadership, patriotism and the most improvement in physical fitness

*Daughters of the American Revolution Award* to a senior who exhibits excellent dependability, good character, and leadership qualities

*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

*Chief of Naval Operations Distinguished Graduate Award* to a graduating senior who demonstrates the highest standards of leadership, academic, and military performance

*James Clifford Garland Honorary Scholarship* to the outstanding member of the junior class who best embodies the highest qualities of leadership and commitment

*Colonel William R. Higgins Memorial Award* to the standout Marine-option who best exemplifies professionalism, achievement, and devotion to duty for other students to emulate

*Larry Holland Memorial Scholarship* to an undergraduate student planning to serve in the U.S. Navy

*Joseph T. Lukens Memorial Scholarship* to a Navy-option midshipman who excels in academic, physical and military performance

*Military Officers Association of America Award* to midshipmen who have demonstrated an exceptional level of leadership, initiative and responsibility

*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 who displays the highest ideals of academic and leadership excellence, a Naval officer's sword

*Reserve Officer Association League Award* to a midshipman who not only demonstrates excellent leadership and scholarship but also dedicates themselves to volunteerism in the community and University

*Sons of the American Revolution Award* to a midshipman who personifies the ideals upon which this Nation was founded

*Sons of the Union Veterans of the Civil War Award* to a midshipman who shows a high degree of patriotism to the Nation and has demonstrated a high degree of academic performance and leadership

*The USAA Spirit Award* to the student who displays the greatest spirit in the service of others

*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 District Four Award* to a midshipman for academic and military excellence

## **Sociology**

*Betty Kent Scholarship*

*Rich/Ivons 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*

*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 Darling Theatre 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*

# 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 duties). An international student who holds a 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 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 term immediately preceding or following the year of appointment. You will also be required to pay the general fee (reduced), technology fee, facilities fee (including Armstrong Center), and transit fees. Fee increases for 2014-2015 will be determined at the June meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: <http://www.units.MiamiOH.edu/bur/>. Graduate assistants have two options for payment of fees: Pay in full at the start of each semester, or use the payroll deduction program.

Graduate assistants must carry between 9 to 15 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.

**Dissertation scholarships**, for doctoral candidates at dissertation stage, are service free and carry a stipend that is determined by the student's department. Dissertation scholars are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer term immediately preceding or following the year of appointment. You will also be required to pay the general fee (reduced), technology fee, facilities fee (including Armstrong Center), and transit fees. Fee increases for 2014-2015 will be determined at the June meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: <http://www.units.MiamiOH.edu/bur/>. Graduate assistants have two options for payment of fees: Pay in full at the start of each semester, or use the payroll deduction program.

**Graduate summer scholarships** are stipends of two \$900 payments made during the summer term. These stipends are awarded for a maximum of \$1,800 for the summer term, and there are no duties attached to the payment of this scholarship. The awards are given to graduate assistants and dissertation scholars who hold awards for one or two terms and meet the guidelines for these scholarships. Graduate assistants with half-time duties for two terms are granted remission of 93% of the graduate comprehensive fee for the period of appointment and for the summer term immediately preceding or following the year of appointment. You will also be required to pay the general fee (reduced), technology fee, facilities fee (including Armstrong Center), and transit fees. Fee increases for 2014-2015 will be determined at the June meeting of the Board of Trustees. For additional information regarding fees, charges, and regulations regarding refunds see the following link: <http://www.units.MiamiOH.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 terms. 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 Niihka 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 Niihka 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

**Sharon J. Mitchell**  
Chair

**David H. Budig**  
Vice Chair

**Dennis A. Lieberman**  
Secretary

**Jagdish K. Bhati**  
Treasurer

### Members

**2014 (2008) Sue J. Henry** (*National Trustee*)  
McLean, Virginia. B.A., Miami; J.D., Northwestern.

**2014 (2011) C. Michael Armstrong** (*National Trustee*)  
Darien, Connecticut. B.S., Miami; LL.D., Miami, Pepperdine, Loyola Marymont, Shenandoah, Johns Hopkins; D.Eng., Worcester Polytechnic Institute.

**2015 (2012) C. Michael Gooden** (*National Trustee*)  
Arlington, Virginia. B.S., Miami; M.S., Pennsylvania; D.Sc., Miami.

**2015 (2006) Donald L. Crain**  
West Chester, Ohio. B.S., Miami; J.D., Cincinnati.

**2016 (2013) John W. Altman** (*National Trustee*)  
Reno, NV. B.A., Miami; M.A., Fuller Theological Seminary; L.H.D., Miami, Phillips Graduate Institute, Sierra Nevada College.

**2016 (2013) Terry Hershey** (*National Trustee*)  
Frisco, Colorado. A.B., Miami; M.P.A., Northern Illinois; M.B.A., Columbia.

**2016 (2009) Sharon J. Mitchell**  
West Chester, Ohio. B.S., Miami.

**2017 Vacant**

**2018 (2009) Dennis A. Lieberman**  
Clayton, Ohio. B.A., Miami; J.D., Dayton.

**2019 (2010) Jagdish K. Bhati**  
Cincinnati, Ohio. B.E., University of Jodhpur; M.S., Cincinnati.

**2020 (2011) Mark E. Ridenour**  
Sylvania, Ohio. B.S., Miami.

**2021 (2012) Robert W. Shroder**  
Warren, Ohio. B.S., Miami; M.H.A., Xavier.

**2022 (2011) David H. Budig**  
Cincinnati, Ohio. B.S., Miami.

**2023 (2013) Stephen P. Wilson**  
Maineville, Ohio. B.S., Miami.

## Student Members

**2016 Vacant**

**2015 (2013) Graham Bowling**  
Delaware

## Executive Officers of Administration

**David C. Hodge (2006)**  
President; Professor, Geography  
B.A., Macalester, 1970; M.S., Penn State, 1973; Ph.D., 1975.

**Conrado M. Gempesaw (2011)**  
Provost and Executive Vice President for Academic Affairs;  
Professor, Economics  
B.A., Ateneo de Davao Univ., 1974; M.S., West Virginia, 1982;  
Ph.D., Penn State, 1985.

**David K. Creamer (1975)**  
Vice President for Finance and Business Services and Treasurer  
B.B.A., Ohio, 1976; M.S., Kent State, 1986; Ph.D., 1990.

**J. Peter Natale (2013)**  
Chief Information Officer and Vice President for Information  
Technology  
B.S., B.A., University of Connecticut, 1983; MBA, 1985.

**Jayne Brownell (2014)**  
Vice President for Student Affairs  
B.A., Rutgers University, 1989; M.A., Columbia University, 1995,  
M.Ed., 1996, Ed.D., 2002.

**Thomas W. Herbert, III (2012)**  
Vice President for University Advancement and Executive Director  
of the Miami University Foundation  
B.A., Northwestern University, 1989; J.D., Illinois Institute of  
Technology, Chicago-Kent College of Law, 1994.

**Theodore O. Pickerill (2005)**  
Secretary to the Board of Trustees and Executive Assistant to the  
President  
B.S. U.S. Naval Academy, 1984; M.A. Salve Regina, 1992; M.B.A.  
Nebraska, 1998.

## Deans

**College of Arts and Science**  
Phyllis Callahan (1988)  
Professor, Biology  
B.S., Fairleigh Dickinson University, 1974; M.S., 1981; Ph.D.,  
Rutgers University, 1986.

**College of Creative Arts**  
Elizabeth Mullenix (2006)  
Professor, Theater  
B.A., University of Vermont, 1988; M.A., University of Illinois,  
1991; Ph.D., University of Illinois, 1995.

**College of Education, Health and Society**  
(TBD).

**College of Engineering and Computing**  
Marek Dollár (2000)  
Professor, Engineering Science  
B.S., Stanislaw Staszic (Poland), 1974; M.S., 1975; Ph.D., 1981.

**Farmer School of Business**  
Matthew Myers (2014)  
Professor, Marketing and Mitchell P. Rales Chair in Business  
Leadership  
B.A., University of Louisville, 1986; M.I.B., University of South  
Carolina, Ph.D., 1992; Michigan State University, 1997.

**Graduate School**

James Oris (1986)  
Dean/Associate Provost  
Distinguished Professor of Biology  
B.A., Wittenberg University, 1979; Ph.D., Michigan State University, 1985.

**University Librarian**

Jerome Conley (1992)  
Dean, University Librarian and Associate Librarian  
B.A., Indiana University, 1988; M.S.L.S., Indiana University, 1990.

**John E. Dolibois European Center**

Thierry Leterre (2009)  
Professor, Political Science  
B.A., Sorbonne University (France), 1984; M.A., University of Picardie (France), 1985; M.A., Paris X University (France), 1988; Ph.D., Sorbonne University (France), 1999.

**Miami University Hamilton, Middletown and Voice of America****College of Professional Studies & Applied Sciences**

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**

Jonathan Eldridge, Lt. Colonel, USAF (2013)  
B.S., United States Air Force Academy, 1998; M.S., Wright State University, 2001.

**Anthropology**

Mark Peterson (2003)  
B.A., University of California-Los Angeles, 1984; M.A., Catholic University of America, 1989; Ph.D., Brown University 1996.

**Architecture and Interior Design**

John Weigand (1991)  
B.E.D., Miami, 1977; M.Arch., Illinois (Urbana-Champaign), 1979.

**Art**

Margaret Faimon (1991)  
B.F.A., Indiana University, 1987; M.F.A., Yale University, 1989.

**Biology**

Douglas B. Meikle (1989)  
B.A., Ohio Wesleyan, 1973; M.A., DePauw, 1975; Ph.D., Bowling Green State, 1980.

**Business Technology**

Theodore B. Light (2003)  
B.B.A., Cincinnati, 1974; M.B.A., 1975; Ph.D., 1993.

**Chemical, Paper and Biomedical Engineering**

Shashi Lalvani (2003)  
B. Tech., Indian Institute of Technology, 1976; M.S., New Hampshire, 1979; Ph.D., Connecticut, 1982.

**Chemistry and Biochemistry**

Michael Crowder (1995)  
B.S., College of William & Mary, 1988; Ph.D., University of Virginia, 1993.

**Classics**

Steven Tuck (2001)  
B.A., Indiana University, 1986; Ph.D., University of Michigan, 1997.

**Comparative Religion**

James Hanges (1997)  
B.A., Miami University, 1985; M.A., Miami University, 1987; Ph.D., University of Chicago.

**Computer and Information Technology**

Marianne Murphy (2014)  
B.A., Youngstown State University, 1978; MBA, Kent State University, 1994; Ph.D., Arizona State University, 1997.

**Computer Science and Software Engineering**

James Kiper (1986)  
B.A., Olivet Nazarene College, 1975; M.S., Ohio State, 1978; Ph.D. 1985.

**Economics**

George K. Davis (1985)  
B.S., Southern Methodist, 1977; M.A., 1980; Ph.D., 1984.

**Educational Leadership**

Kathleen Knight Abowitz (1995)  
B.A. Randolph Macon College, 1986; M.Ed., University of Vermont, 1989; Ph.D., University of Virginia, 1996.

**Educational Psychology**

G. Susan Mosley-Howard (1983)  
B.A., University of Michigan, 1977; M.A., 1979; Ph.D., Michigan State University, 1984.

**Electrical and Computer Engineering**

Qihou Zhou (2002) (Interim)  
B.S., Harbin Institute of Technology (China), 1982; M.S., Pennsylvania State University, 1991; M.A., Pennsylvania State University, 1991; Ph.D., Pennsylvania State University, 1991.

**Engineering Technology**

Ayodele Abatan (2006)  
B.S., Ahmadu Bello University (Nigeria), 1971; M.S., Illinois, 1973; Ph.D., Virginia Polytechnic, 1976.

**English**

LuMing Mao (1991).  
B.A., East China Normal University (China), 1982; M.A., University of Minnesota-Twin Cities, 1989; Ph.D., University of Minnesota-Twin Cities, 1989; Ph.D., University of Minnesota-Twin Cities, 1991.

**Family Studies and Social Work**

Howard Karger (2014)  
B.S. Wisconsin-Stevens Point, 1973; M.S., Wisconsin-Superior, 1974; MSW, Minnesota-Duluth, 1977; Ph.D., Illinois, 1984.

**Finance**

Steve B. Wyatt (2006)  
B.A., Alaska (Anchorage), 1975; Ph.D., Texas (Dallas), 1980.

**French and Italian**

Jonathan A. Strauss (1992)  
B.A., Yale, 1982; M.A., New York, 1985; M.Phil., Yale, 1989; Ph.D., 1993.

**Geography**

Bruce D'Arcus (2001)  
B.A., University of California-Los Angeles, 1994; M.A., University of Colorado, 1997; Ph.D., Syracuse University, 2001.

**Geology & Environmental Earth Science**

Elisabeth Widom (1997)  
B.A., Cornell University, 1984; Ph.D., University of California, Santa Cruz, 1991.

**German, Russian, Asian, and Middle Eastern Languages and Cultures**

Margaret Ziolkowski (1988)  
B.A., Princeton, 1973; M.A., Yale, 1976; Ph.D., 1978.

**History**

Wietse de Boer (2003)  
B.A. University of Amsterdam (The Netherlands), 1983; M.A., University of Amsterdam (The Netherlands), 1986; Ph.D., Erasmus Universiteit Rotterdam (The Netherlands), 1995.

**Information Systems & Analytics**

John Benamati (1997)  
B.S., Indiana University of Pennsylvania, 1984; M.S., Marist College, 1987; Ph.D., Kentucky, 1997.

**Integrative Studies**

TBD.

**Justice and Community Studies**

Daniel E. Hall (2003)  
B.S. Indiana University, 1985; J.D., Washburn University of Topeka, 1988; Ed.D., University of Central Florida, 1999.

### **Kinesiology and Health**

Helaine Alessio (1987)  
B.S., Rutgers, 1981; M.S., Ithaca College, 1983; Ed.D., Maryland, 1986.

### **Management**

Byron Finch (1987)  
B.S., Iowa State, 1978; M.S., 1980; Ph.D., Georgia, 1986.

### **Marketing**

Robert F. Dahlstrom (2011)  
B.S., B.A., Xavier, 1980; Ph.D., Cincinnati, 1990.

### **Mathematics**

Patrick Dowling (1989)  
B.S., University College (Dublin), 1979; M.S., 1980; Ph.D., Kent State, 1986.

### **Mechanical and Manufacturing Engineering**

Timothy Cameron (2010)  
B.S., Cornell, 1981; M.Eng., Carnegie Mellon, 1985; Ph.D., 1988.

### **Media, Journalism & Film**

Richard Campbell (2004)  
B.A., Marquette, 1971; M.A., Wisconsin-Milwaukee, 1980; Ph.D., Northwestern, 1986.

### **Microbiology**

Luis Actis (1994)  
M.S., Universidad de Cordoba (Spain), 1975; Ph.D., 1982.

### **Music**

Bruce Murray (2012)  
B.F.A., Carnegie Mellon, 1977; M.Mus., Yale University, 1980; D.M.A., 1984.

### **Naval Science**

Douglas Adkisson, Cmdr (Navy) (2011)  
B.S., Auburn University; M.A., Air University.

### **Nursing**

Paulette Worcester (1995)  
B.S.N., DePaul, 1977; M.A., Ball State, 1984; D.N.S., Indiana, 1993.

### **Philosophy**

Emily Zakin (1995)  
B.A., Haverford College, 1988; M.A., SUNY-Stony Brook, 1993; Ph.D., 1997.

### **Physics**

Herbert Jaeger (1992)  
M.S., Fachhochschule Dieburg (Germany), 1977; M.S., Oregon State University, 1984; Ph.D., Oregon State University, 1987.

### **Political Science**

Patrick J. Haney (1992) (Interim)  
B.A., Ohio State University, 1988; Ph.D., Indiana University, 1992.

### **Psychology**

TBD.

### **Sociology and Gerontology**

Jennifer Kinney (Interim) (1998)  
B.A., Kent State University, 1982. M.A., Kent State University, 1985; Ph.D., Kent State University, 1987.

### **Spanish and Portuguese**

Ann Jarrett Bromberg (2001)  
B.A., University of Colorado-Denver, 1984; M.F.A., University of Kansas, 1989; Ph.D. University of Texas, 1997.

### **Speech Pathology and Audiology**

Susan Baker Brehm (2003)  
B.S., Miami University 1997; M.A., Miami University, 1999; Ph.D., University of Florida, 2003.

### **Statistics**

A. John Bailer (1988)  
B.S., Miami, 1982; M.A., North Carolina-Chapel Hill, 1984; Ph.D., 1986.

### **Teacher Education**

Roland Coloma (2014)  
B.A., California-Riverside, 1995; M.A., California-Riverside, 1998; M.A., Ohio State University, 2002; Ph.D., Ohio State University, 2004.

### **Theatre**

Julia Guichard (1998) (Interim)  
B.F.A., DePaul University, 1984; M.F.A., Pennsylvania State University, 1994.

For a list of current faculty, please visit the following website:  
<http://www.units.MiamiOH.edu/academicpersonnel>

## **Graduate School**

### **James Oris (1986)**

Dean/ Associate Provost  
B.A., Wittenberg University, 1979; Ph.D., Michigan State University, 1985.

### **Ann Bainbridge Frymier (1992)**

Associate Dean; Associate Professor, Communication  
B.S., Western Michigan, 1986; MPH, North Carolina (Chapel Hill), 1988; Ed.D., West Virginia, 1992.

### **Valerie O. Robinson (2006)**

Director of Diversity Enhancement  
B.S., Cincinnati, 1998; M.S., Miami, 2001.

### **Nazanin Tork (2012)**

Director, International Graduate Admission  
B.A., University of Cincinnati, 2004; M.A., University of Cincinnati, 2008.

### **Lou Ann Haines (2006)**

Assistant to the Dean and Associate Provost

## **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.

## **Directors of Graduate Programs**

### **Accountancy**

Dan Heitger (2004)  
Deloitte & Touche Professor, Accountancy  
B.S., Indiana University, 1993; Ph.D., Michigan State University, 2000.

### **Architecture and Interior Design**

Craig Hinrichs (1985)  
B.Arch., University of Nebraska, 1976; M.Phil, University of Manchester, 1987.

### **Art**

Ellen Price (1987)  
B.A., Brooklyn College, 1980; M.F.A., Indiana University, 1986.

### **Biology**

Michelle Boone (2004)  
B.S., Furman University, 1994; B.A., Furman University, 1994; Ph.D., University of Missouri, 2000.

### **Biology - Project Dragonfly**

Matteson, Kevin (2011)  
B.A., Earlham College, 1999; M.S., Fordham University, 2005; Ph.D., Fordham University, 2007.

### **Business Administration**

Kristine Reid (1999)  
B.S., Miami University, 1978; M.B.A., Indiana University, 1980.

### **Cell, Molecular, & Structural Biology**

Lori Isaacson (1989)  
B.S., College of Charleston, 1978; M.S., University of Georgia, 1982; Ph.D., Michigan State University, 1986.

**Chemical, Paper and Biomedical Engineering**

Doug Coffin (2002)

B.C.E., University of Delaware, 1987; M.S., University of Delaware, 1989; Ph.D., University of Delaware, 1994.

**Chemistry and Biochemistry**

Stacey Lowery Bretz (2005)

B.A., Cornell University, 1989; M.S., Pennsylvania State University, 1991; Ph.D., Cornell University, 1994.

**Computational Science & Engineering**

James Moller (1995)

B.S., Case Western Reserve University, 1982; M.M.E., Massachusetts Institute of Technology, 1984; M.Eng., Massachusetts Institute of Technology, 1987; Ph.D., Rensselaer Polytechnical Institute, 1994.

**Computer Science and Software Engineering**

William Brinkman (2004)

B.S., University of Washington, 1999; M.A., Princeton University, 2001; Ph.D., Princeton University, 2004.

**Ecology, Evolution & Environmental Biology**

Hank Stevens (2001)

B.A., University of New Hampshire, 1982; M.S., University of Pittsburgh, 1994; Ph.D., University of Pittsburgh, 1999.

**Economics**

Melissa Thomasson (2013)

B.S., University of Puget Sound, 1992; M.A., University of Arizona, 1993; Ph.D., University of Arizona, 1998.

**Educational Leadership**

Thomas Poetter (1997)

B.A., Heidelberg College, 1985; M.A., Princeton Theological Seminary, 1988; Ph.D., Indiana University, 1994.

**Educational Leadership - Student Affairs in Higher Education (SAHE)**

Elisa Abes (2005)

B.A., Ohio State University, 1992; J.D., Harvard University, 1995; Ph.D., Ohio State University, 2003.

**Educational Psychology**

Raymond Witte (1993)

B.A., University of Kentucky, 1979; M.S., University of Kentucky, 1982; Ph.D., University of Kentucky, 1991.

**English**

Madelyn Detloff

B.A., University of Chicago, 1987; M.A., University of California-Santa Barbara, 1991; Ph.D., University of California-Santa Barbara, 1997.

**English - Ohio Writing Project**

Baxter, Monica (2006)

B.S., Miami University, 1991.

**Family Studies and Social Work**

William Newsome (2005)

B.A., University of Michigan, 1994; M.S.W., Wayne State University, 1996; Ph.D., Ohio State University, 2002.

**French and Italian**

Elisabeth Hodges (2001)

B.A., University of Washington, 1992; M.A., University of California-Los Angeles, 1996; M.A., Harvard University, 1998; Ph.D., Harvard University, 2002.

**Geography**

Marcia England (2007)

B.A., University of Washington, 1998; M.A., University of Washington, 2002; Ph.D., University of Kentucky, 2006.

**Geology & Environmental Earth Science**

John Rakovan (1998)

B.S., University of Illinois, 1988; M.S., University of Illinois-Chicago, 1990; Ph.D., SUNY-Stony Brook, 1996.

**History**

Matthew Gordon (1994)

B.A., Drew University, 1979; M.A., Columbia University, 1984; M. Phil, Columbia University, 1988; Ph.D., Columbia University, 1993.

**Institute for the Environment and Sustainability (IES)**

Thomas Crist (1994)

B.A., McPherson College, 1982; M.S., Yale University, 1984; Ph.D., Utah State University, 1990.

**Kinesiology and Health**

Samuel Morris (2011)

B.S., Miami University, 2003; M.S., Miami University, 2006; Ph.D., Ohio State University, 2010.

**Mathematics**

Douglas Ward (1984)

B.A., Haverford College, 1979; M.S., Carnegie Mellon University, 1981; Ph.D., Dalhousie University (Nova Scotia), 1985.

**Microbiology**

Mitchell Balish (2004)

A.B., Washington University, 1991; Ph.D., Emory University, 1998.

**Music**

Brenda Mitchell (1988)

B.M., Arizona State University, 1976; M.Mus., Arizona State University, 1982; D.M.A., Arizona State University, 1994.

**Philosophy**

Pascal Massie (2003)

B.A., Sorbonne University (France), 1982; M.A., Sorbonne University (France), 1983; Ph.D., Vanderbilt University, 2001.

**Physics**

Samir Bali (2000)

B.S., Lucknow University (China), 1986; M.A., University of Rochester, 1988; Ph.D., University of Rochester, 1994.

**Political Science**

Cyril Daddieh (2006)

B.A., Ripon College, 1978; M.A., Carleton University (Canada), 1979; Ph.D., Dalhousie University (Nova Scotia), 1984.

**Psychology**

Christopher Wolfe (1989)

B.A., Denison University, 1981; M.S., University of Bridgeport, 1984; M.S., University of Pittsburgh, 1987; Ph.D., University of Pittsburgh, 1989.

**Sociology and Gerontology**

Scott Brown (2005)

B.A., Furman University, 1992; M.S., Clemson University, 1996; M.A., Duke University, 1999; Ph.D., Duke University, 2002.

**Spanish & Portuguese**

Ann Jarrett Bromberg (2001)

B.A., University of Colorado-Denver, 1984; M.F.A., University of Kansas, 1989; Ph.D., University of Texas, 1997.

**Speech Pathology and Audiology**

Donna Scarborough (2003)

B.S., University of Illinois, 1991; M.S., University of Louisville, 1993; Ph.D., University of Cincinnati, 2002.

**Statistics**

Douglas Noe (2006)

B.S., Bradley University, 1997; M.A., University of Michigan, 2000; M.S., University of Illinois, 2003; Ph.D., University of Illinois, 2006.

**Teacher Education**

Barbara Rose Heuberger (1988)

B.A., Iowa State University, 1976; M.S., Iowa State University, 1978; Ph.D., University of Minnesota, 1985.

**Theatre**

Paul Jackson (1998)

B.A., Dartmouth College, 1973; M.A., University of Cincinnati, 1974; Ph.D., University of Wisconsin-Madison, 1983.

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