2006-2007 Bulletin
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The University of Dayton

Founded in 1850

The University of Dayton is a private, coeducational school founded and directed by the Society of Mary (the Marianists), a Roman Catholic teaching order. It is among the nation's largest Catholic institutions of higher learning. Aware of the richness of cultural diversity, representatives of many faiths are numbered among the University faculty and students. For the same reason, the University has consciously drawn its students and faculty not only from the immediate community and the Midwest but from across the country and from numerous foreign countries.

The main campus of more than 200 landscaped acres sits on a hill overlooking the city of Dayton, Ohio. The campus is made up of a well-integrated architectural mix of old and new buildings that are both attractive and well-equipped. The faculty members are excellent scholars who pursue knowledge in its rich variety and fine instructors dedicated to student learning and educational excellence. The University enrolls students from diverse social, ethnic, and economic backgrounds who are capable of and committed to learning, leadership, and service.

A lively, friendly atmosphere; numerous and varied religious, cultural, and social opportunities; an early-semester calendar allowing a number of study-recess options; intercollegiate and intramural athletic programs for both men and women; academic options such as honors programs, independent study, and study abroad; academic, professional, and personal counseling; cooperative work-study plans; a placement service for students and graduates—these exemplify the myriad aspects of the character of the University of Dayton.

1 The Society of Mary, founded in France in 1817 by Father William Joseph Chaminade, presently conducts schools throughout the United States and in Africa, Canada, Europe, India, Japan, Korea, and Central and South America. The Society operates Chaminade University in Honolulu and St. Mary's University in San Antonio.
The University of Dayton is a comprehensive Catholic university, a diverse community committed, in the Marianist tradition, to educating the whole person and to linking learning and scholarship with leadership and service.

The University of Dayton is a comprehensive university committed to offering a broad range of programs in liberal arts, the sciences, and the professions at the undergraduate level, to providing selected programs on the graduate level to meet the needs of the community and region, to sponsoring timely continuing education programs. As comprehensive, the University views learning and scholarship as a shared task of discovering, integrating, applying and communicating knowledge at the intersections of liberal and professional education, across the disciplines, and through combining theory with practice.

As Catholic, the University commits itself to a distinctive vision of learning and scholarship that includes: a common search for truth based on the belief that truth can be more fully known and is ultimately one; a respect for the dignity of each human person created in the image and likeness of God; and an appreciation that God is manifested sacramentally through creation and the ordinary things in life. Ultimately, a Catholic vision of the intellectual life is based upon the acceptance of the revelation of God in Jesus Christ as it has been received and handed on by the Church. This challenge calls for integration of the human and the divine, reason and faith, and promotes true understanding through a person's head and heart. The University welcomes persons of all faiths and persuasions to participate in open and reflective dialogue concerning truth and the ultimate meaning of life.

Founded in the Marianist tradition, the University is committed to a vision of a distinctive educational community. As Marianist, the University focuses on educating the whole person in and through a community that supports and challenges all who become a part of it. The University forms an educational community thriving on collaboration by people from diverse backgrounds with different skills who come together for common purposes. The University as Marianist challenges all its members to become servant-leaders who connect scholarship and learning with leadership and service.

This university community-comprehensive, Catholic and Marianist-exists not for itself, but to render service. The University creates an environment in which its members, working in a scholarly manner, are free to evaluate the strengths and weaknesses of their own work and the work of others. In partnership, through the Research Institute, Campus Ministry, as well as numerous student organizations, the University works with others to improve the human community.
In the summer of 1849, Father Leo Meyer and Brother Charles Schultz, the first Marianist missionaries to America, journeyed from Alsace in France to Cincinnati, Ohio, where they intended to establish a base for the order in this country. They arrived, however, during a cholera epidemic, so Bishop John Purcell of Cincinnati soon sent Father Meyer to Dayton to minister to the sick of Emmanuel Parish. Here he met John Stuart, whose little daughter died of cholera the year before. Mr. Stuart wanted to sell his Dayton property and return with his wife to Europe. On March 19, 1850, the feast of St. Joseph, Father Meyer purchased Dewberry Farm from him and renamed it Nazareth. Mr. Stuart accepted a medal of St. Joseph and a promise of $12,000 at 6% interest in return for 125 acres, including vineyards, orchards, a mansion, and various farm buildings. Meanwhile, more Marianists arrived, and Nazareth became the first permanent foundation of the Society of Mary in the Western Hemisphere.

The University of Dayton had its earliest beginnings on July 1, 1850, when St. Mary's School for Boys, a frame building that not long before had housed farm hands, opened its door to fourteen primary students from Dayton. In September, the classes moved to the mansion, and the first boarding students arrived. Father Meyer served as administrator, Brother Maximin Zehler taught, Brother Schultz cooked, and Brother Andrew Edel worked as farmer-gardener.

Five years later the school burned to the ground, but within a year classes resumed. By 1860, when Brother Zehler became president, enrollment approached one hundred. The Civil War had little direct effect on the school because most of the students were too young to serve. St. Mary's grew as college preparatory courses were started in 1861. Then came a novitiate and a normal school for Marianist candidates. An old history refers to the period of 1860-75 as "the brick-and-mortar years." The Chapel of the Immaculate Conception was completed in 1869. In 1870, visitors marveled at new St. Mary's Hall, the largest building in Dayton, and called it "Zehler's Folly." The new "college department" moved into it in 1871. (St. Mary's Hall is now listed in the National Register of Historic Places.)

In 1882, the institution was incorporated and empowered to confer collegiate degrees under the laws of the State of Ohio. In 1883, another devastating fire visited the campus, but this time some of the buildings were saved. The statue now known as Our Lady of the Pines was erected in gratitude, and the following year St. Joseph's Hall was built, symbolizing the renewed confidence of the Dayton Marianists. In a more famous emergency, the school was spared by water as it had not been by fire. Because of its hillside location, it survived the Great Flood of 1913 untouched and was able to give shelter to 600 refugees.

St. Mary's had reorganized in 1902 into four departments-classical, scientific, academic, and preparatory. In 1905 it added the Commercial Department, which would become the Department of Commerce and Finance in 1921, the Division of Business Organization in 1924, and ultimately the School of Business Administration. Four engineering departments, appearing from 1909 to 1920, were to become the Engineering Division. In 1915, the Marianist training program (novitiate and normal school) was moved to Mount St. John's (now Bergamo Center).

Known at various times as St. Mary's School, St. Mary's Institute, and St. Mary's College, the school assumed its present identity in 1920, when it was incorporated as the University of Dayton. The same year, the elementary division was closed, the Division of Education was organized, and the University started...
its tradition of evening and Saturday classes to serve adults in the surrounding community. In 1922, the College of Law opened, also with evening classes. Other graduate programs followed, to augment the professional degree programs which distinguished the University from many of Ohio's other independent institutions of higher learning. In 1923, the first summer session was held; its classes, like those of the law college, were open to women as well as men.

The 1930s, with the Great Depression, were in many ways a time of retrenchment for the University of Dayton as for most other American schools. The Dayton Marianists had survived cholera, smallpox, and influenza, wars, fire and flood, and (in 1924) a Ku-Klux-Klan cross-burning on the campus. In 1935, even as the University turned its preparatory school functions over to Chaminade High School and graduated what was to be its last class in law for almost forty years, it inaugurated a college for women, with sisters of Notre Dame in charge of twenty-seven entering female students. Two years later, the college for women closed; all divisions opened to women, and the University became fully coeducational.

Enrollment had passed a thousand when World War II broke out. By 1950, with the return of the veterans, it reached more than 3,500. In 1967, it topped 10,000. But then, with the expansion of a community college and the establishment of a state university nearby, enrollment declined, and the resulting retrenchment was exacerbated by rising inflation and the energy crisis. Nor did the social turbulence and activism of the late 1960s and early 1970s bypass the University of Dayton. Some students and faculty protested against the Vietnam War, compulsory ROTC, and defense-related research activities. They campaigned also for changes in the curriculum, seeking more opportunities for meeting personal needs and goals. In response, the University gave greater responsibility to students for their own academic decisions, and it initiated interdisciplinary programs, self-directed learning, and various experimental courses and methods. Meanwhile, the profile of the student body changed. The 1960s saw significant increases in female and minority students. In the 1970s, there was a shift to a largely residential student body, and at the same time many more "nontraditional" (older) students matriculated. By the mid-1970s, total enrollment steadied at more than 10,000, with about 6,000 full-time undergraduates.

To keep pace with the University's growth, a series of building programs has more than tripled the number of major facilities since the Centenary Year of 1950. The University held its first general public fund-raising campaign in order to erect Wohleben Hall in 1958 and Sherman Hall in 1960. Both campus and off-campus residences - dormitories, apartments, and houses - were added and improved as such emergency accommodations as surplus Army barracks and an adapted Army hospital (renamed the West Campus) were phased out.

A long-range environmental design has helped integrate new buildings and old, and made the campus more livable by increasing its beauty as well as its efficiency. In 1986, old and new combined in the much heralded architectural design of the Anderson Center between Rike Hall and Miriam Hall. When fire ravaged St. Joseph Hall in 1987, the University was able to rebuild and restore it without harming the architectural integrity of that historic corner of campus. Keeping pace with the needs of the University, the Jesse Philips Humanities Center opened in 1993, and Joseph E. Keller Hall was built for the School of Law in 1997. In addition, the University has renovated Miriam Hall, converted its child care center into an early childhood demonstration school called the Bombeck Family Learning Center and completed the first phases of a modern Science Center. In 2002, the University of Dayton Arena underwent a modernization, placing it among the best venues for basketball in the country. The Donoher Basketball Center, a major addition to the UD Arena giving UD a premier basketball facility for both playing and training, was dedicated in 1998.

As the University of Dayton enters the 21st century, it is building modern student facilities, including ArtStreet and Marianist Hall (2004) and RecPlex (2006), a fitness and recreation complex that will be more than twice the size of the current Physical Activities Center and serve a growing number of health-conscious students, faculty, and staff.

The edifices are not the only changes on campus. In 1960, the University reorganized academically and administratively. Administrative changes saw the formation of the College of Arts and Sciences from what had been two separate
units. Other divisions became the Schools of Business Administration, Education and Engineering. In 1970, the University charter was amended and lay members now joined the Marianists on the Board of Trustees. In 1974, the School of Law reopened.

Academically, the University has continued to expand and enrich its offerings and support services, especially since mid-century. Graduate studies, abandoned during World War II, resumed in 1960, with the School of Education leading the way. In 1969, the Department of Biology inaugurated the first doctoral program since 1928. The School of Engineering introduced two doctoral programs in 1973, and in 1992, the first doctoral degrees in educational leadership were awarded. In 1997, the Board of Trustees approved a doctoral program in theology with a focus on the Catholic experience in the United States. It was the first such doctoral program on a Catholic campus nationally.

In 1975, the Marian Library, which had grown to international renown since its inception in 1943, founded the International Marian Research Institute (IMRI), which was incorporated in 1984 as a branch of the Marianum in Rome. IMRI is empowered to confer licentiate and doctoral degrees in theology, with a specialization in Mariology. The Marian Library now holds the world's largest collection of print materials on Mary, the mother of Jesus.

For all undergraduates, a general education plan was adopted in 1983 to foster integration of the liberal arts in a professional education. In 1990, the Academic Senate approved a revision of the general education requirements that called for an integrated base of four humanities courses complemented by clusters of other courses, requiring various disciplines to focus on a single theme.

In 1986, the School of Business Administration established the Center for Business and Economic Research, now known as the Business Research Group. With an advanced information systems laboratory among its resources, the center provides contract research services for local business, government, and other organizations and support for faculty research.

The University has always maintained a tradition of innovation. In 1874, St. Mary's Institute's new Play House gymnasium was the only one of its kind in Ohio, and it is probable that the first organized basketball game in the state took place there. A system of elective studies was inaugurated in 1901. In 1924, the University was the first school to be granted a charter by the National Aeronautical Association. It was one of the first in the nation to offer a course in biophysics (1935). In 1948, it was a pioneer in student ratings of professors, and in 1952, it invited persons over 60 to attend its evening classes as guests. Its graduate program in laser optics was one of the earliest in the country. It was one of the first educational institutions to adopt electronic data-processing equipment and to offer degrees in computer science. In 1999, the University of Dayton was the first in the nation to offer an undergraduate degree program in human rights. In 2004, the University of Dayton partnered with Nanjing University, one of the top universities in China, to establish the University of Dayton-Nanjing University Suzhou Executive Training Center. The University will be the first American university in China's Suzhou Industrial Park (SIP) to provide graduate education to employees of American corporations and other international companies.

More than just a breeding ground for academic excellence, the University also responds to the needs of society and the region. Sponsored research at the University began in 1949 with a few faculty members and student assistants doing part-time research for industry and government agencies. In 1955, the University of Dayton Research Institute (UDRI) was formed to consolidate the administration of the growing research activities. Annual research volume has increased from $3,821 in 1949, to more than $60 million today. A center for discovery, development and technology commercialization, UDRI is the largest nonmedical research facility on a Catholic university campus.

From its humble roots as a private boarding school for boys, the University of Dayton today ranks among the best Catholic universities in the country. It is the largest independent university in Ohio and draws students from around the country and the world.
Statement of Purposes

Approved by the Board of Trustees, May 14, 1969.

The University of Dayton, by tradition, by legal charter, and by resolute intent, is a church-related institution of higher learning. As such, it seeks, in an environment of academic freedom, to foster principles and values consonant with Catholicism and with the living traditions of the Society of Mary. Operating in a pluralistic environment, it deliberately chooses the Christian world-view as its distinctive orientation in carrying out what it regards as four essential tasks: teaching, research, serving as a critic of society, and rendering public service.

The University of Dayton has as its primary task to teach—that is, to transmit the heritage of the past, to direct attention to the achievements of the present, and to alert students to the challenges and challenges of the future. It regards teaching, however, as more than the mere imparting of knowledge; it attempts to develop in its students the ability to integrate knowledge gained from a variety of disciplines into a meaningful and viable synthesis.

The University of Dayton holds that there is harmony and unity between rationally discovered and divinely revealed truths. Accordingly, it commits its entire academic community to the pursuit of such truths. It provides a milieu favorable to scholarly research in all academic disciplines, while giving priority to studies which deal with problems of a fundamentally human and Christian concern. It upholds the principle of responsible freedom of inquiry, offers appropriate assistance to its scholars, and endeavors to provide the proper media for the dissemination of their discoveries.

The University of Dayton exercises its role as critic of society by creating an environment in which faculty and students are free to evaluate, in a scholarly manner, the strengths and weaknesses found in human institutions. While, as an organization, it remains politically neutral, objective, and dispassionate, it encourages its members to judge for themselves how these institutions are performing their proper tasks; to expose deficiencies in their structure and operation; to propose and actively promote improvements when these are deemed necessary.

The University of Dayton recognizes its responsibility to support, with means appropriate to its purposes, the legitimate goals and aspirations of the civic community and to cooperate with other agencies in striving to attain them. It assists in promoting the intellectual and cultural enrichment of the community; it makes available not only the resources of knowledge that it possesses, but also the skills and techniques used in the accumulation and dissemination of knowledge; and, above all, it strives to inspire persons with a sense of community and to encourage men and women of vision who can and will participate effectively in the quest for a more perfect human society.

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Basic Academic Structure of the University

The University of Dayton now includes the College of Arts and Sciences and four professional schools, each with a dean: the School of Business Administration, the School of Education and Allied Professions, the School of Engineering (including Engineering Technology), and the School of Law. The deans, through their departmental chairpersons, administer the undergraduate and graduate programs. The vice president for graduate studies and research and dean of graduate studies has the overall responsibility for all graduate programs. At the head of the academic structure of the University is the provost.

The University of Dayton awards the following baccalaureate, professional, and graduate degrees:

- Bachelor of Arts
- Bachelor of Chemical Engineering
- Bachelor of Civil Engineering
- Bachelor of Electrical Engineering
- Bachelor of Fine Arts
- Bachelor of General Studies
- Bachelor of Mechanical Engineering
- Bachelor of Music
- Bachelor of Science
- Bachelor of Science in Business Administration
- Bachelor of Science in Computer Engineering
- Bachelor of Science in Education and Allied Professions
- Bachelor of Science in Engineering Technology
- Master of Arts
- Master of Business Administration
- Master of Computer Science
- Master of Financial Mathematics
- Master of Mathematics Education
- Master of Public Administration
- Master of Science
- Master of Science in Aerospace Engineering
- Master of Science in Applied Mathematics
- Master of Science in Chemical Engineering
- Master of Science in Civil Engineering
- Master of Science in Education and Allied Professions
- Master of Science in Electrical Engineering
- Master of Science in Electro-Optics
- Master of Science in Engineering
- Master of Science in Engineering Management
- Master of Science in Engineering Mechanics
- Master of Science in Management Science
- Master of Science in Materials Engineering
- Master of Science in Mechanical Engineering
- Educational Specialist
- Juris Doctor
- Doctor of Engineering
- Doctor of Philosophy in Biology
- Doctor of Philosophy in Educational Leadership
- Doctor of Philosophy in Electro-Optics
- Doctor of Philosophy in Engineering
- Doctor of Philosophy in Theology
- Doctor of Physical Therapy
College of Arts and Sciences


The College of Arts and Sciences offers Masters degree programs in biology, chemistry, communication, computer science, English, applied mathematics, pastoral ministry, psychology, public administration, and theological studies. The College works in collaboration with the School of Education and Allied Professions to offer the Master of Arts in English with a teaching track, the Master of Science in Education and Allied Professions with music education concentration, and the Master of Science in Education and Allied Professions with art education concentration.

The College of Arts and Sciences offers graduate programs leading to doctoral degrees in biology and in theology and participates through the Department of Physics with the School of Engineering in an interdisciplinary program leading to the doctoral degree in electro-optics.

School of Business Administration

The School of Business Administration offers a Bachelor of Science degree with majors in accounting, business economics, entrepreneurship, finance, international business, leadership, management information systems, marketing, and operations management. On the graduate level, the School awards the Master of Business Administration degree.

School of Education and Allied Professions

The School of Education and Allied Professions (SOEAP) prepares professionals for the early, middle and secondary levels, and for specialized fields such as art, music, foreign language, intervention specialist, physical education, dietetics/nutrition, exercise science, pre-physical therapy, and sport management. It conducts professional development and post-graduate programs and offers graduate programs leading to the degrees of Master of Science in Education and Allied Professions, along with Educational Specialist and Doctor of Philosophy in Educational Leadership. These programs are designed to prepare school administrators, school counselors, school psychologists, and teachers for both public and private schools nationwide.

School of Engineering

The School of Engineering includes the departments of Chemical and Materials Engineering, Civil and Environmental Engineering and Engineering Mechanics, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, and Engineering Technology. The School offers four-year curricula leading to the degrees of Bachelor of Chemical Engineering, Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, Bachelor of Science in Computer Engineering, and Bachelor of Science in Engineering Technology with specialties in Computer Engineering Technology, Electronic Engineering Technology, Industrial Engineering Technology, Manufacturing Engineering Technology, and Mechanical Engineering Technology. The School offers graduate programs leading to the degrees of Master of Science in Engineering, Master of Science in Aerospace Engineering, Master of Science in Chemical Engineering, Master of Science in Civil Engineering, Master of Science in Electrical Engineering, Master of Science in Electro-Optics, Master of Science in Engineering Management, Master of Science in Engineering Mechanics, Master of Science in Management Science,
Master of Science in Materials Engineering, Master of Science in Mechanical Engineering, Doctor of Engineering, Doctor of Philosophy in Engineering, and Doctor of Philosophy in Electro-Optics.

School of Law

The University of Dayton School of Law offers the Juris Doctor and two joint degree programs: Juris-Doctor-Master of Business Administration and Juris Doctor-Master of Science in Education and Allied Professions (Educational Administration).

The Graduate School

Programs leading to advanced degrees are offered through the College of Arts and Sciences and the Schools of Business, Education, Engineering, and Law.

Doctoral programs are offered in biology, theology; in aerospace engineering, electrical engineering, electro-optics, materials engineering, and mechanical engineering; and in educational leadership. Both Ph.D. and D.E. degrees are offered in engineering.

The College of Arts and Sciences offers masters programs in applied mathematics, biology, chemistry, communication, computer science, English, financial mathematics, mathematics, pastoral ministry, psychology, public administration, and theological studies. Individual interdisciplinary studies are also available. Concentrations in art education and music education are offered through and in collaboration with the School of Education and Allied Professions.

The School of Business Administration offers a Master of Business Administration with concentrations in accounting, entrepreneurship, finance, international business, management information systems, marketing, operations management, and technology-enhanced business. A combined program offering a B.S.B.A. with an accounting major and an M.B.A. is offered. The J.D./M.B.A. joint degree is also offered to students meeting the admission requirements of both the Law School and the School of Business Administration.

The Post-Master's Certificate Program offers the opportunity for MBA graduates to receive a professional graduate certificate in an approved concentration field.

The School of Education and Allied Professions offers a Master of Science in Education degree, with programs in Teacher Education, Educational Leadership, Counselor Education and Health and Sports Science. The School also offers an Educational Specialist degree in Educational Leadership and School Psychology, a Doctoral degree in Educational Leadership, and a graduate licensure program.


The School of Law offers a Juris Doctor degree.
Libraries

The University Libraries is comprised of Roesch Library, the Marian Library, the University Archives and Special Collections, and the International Marian Research Institute. Roesch Library houses books, journals, videos, DVDs, CDs, government documents, and microforms for both graduate and undergraduate students. Roesch Library is open 114 hours a week throughout much of the academic year and 24 hours per day during finals. Reference assistance is provided in a variety of forms including in person, email, live chat, telephone, and private consultations. Roesch Library subscribes to over 200 databases on a variety of subjects and has current subscriptions to more than 8,000 journals in print and electronic formats. Its book and microform collections include nearly 1.2 million volumes. The Libraries also provide comfortable study areas, photocopiers, and individual and group study rooms. Roesch Library has a 50-seat computer lab called the DEC. Located on the second floor, the DEC provides access to the campus network, OhioLINK resources, and the Internet. These computers run Microsoft Office applications, SPSS, and other software and are available the entire time the library is open. All floors have data ports and wireless network hubs that allow students to access campus and information networks through notebook computers. The Libraries are members of OhioLINK, a cooperative venture of university and college libraries and the Ohio Board of Regents. OhioLINK partners have created a common information network providing rapid access to and delivery of over 9,000,000 volumes available at college and university libraries across the state. All of the libraries affiliated with OhioLINK provide on-site borrowing privileges to students and faculty associated with the University. Access to the Libraries' Web page, databases, and online catalog is available at http://library.udayton.edu

The Marian Library, on the seventh floor of the Roesch Library, houses the world's largest collection of published materials on the Virgin Mary. Its comprehensive collection is devoted to information about and references to the Virgin Mary found in works of Scripture, doctrine, history, tradition, art, culture, spirituality, and devotion. The multi-language collection includes over 95,000 books and pamphlets (6,000 of which were printed before 1800), 165 periodicals, a clipping file of over 60,000 items, and a growing number of microforms. These works are supplemented by a Marian stamp collection, Christmas crèche collection, statues, medals, postcards, and other works of art. Publications include Marian Studies (papers given at the annual meeting of the Mariological Society of America), Marian Library Studies (original research on Marian topics), and the twice-yearly Marian Library Newsletter. The Marian Library's collections can be accessed via the University Libraries' online catalog. Hours, an explanatory video, and information on current art exhibits can be found on the Mary Page (http://www.udayton.edu/mary/library).

The University of Dayton School of Law Library is located in Joseph E. Keller Hall. Its collection contains over 150,000 volumes and 63,000 physical units of microforms. The open-stack arrangement of the Law Library permits easy access to all materials.

The Curriculum Materials Center (CMC) which houses the School of Education and Allied Professions educational materials collection, is on the first floor of Chaminade Hall, Room 103. It offers a wide selection of juvenile and young adult fiction and nonfiction, education journals for use in P-12 schools, textbooks, audiocassettes, records, transparencies, charts, material kits, teaching aids, dissertations and videocassettes. The CMC also has 2 PC workstations, a copier, a binding machine and an Ellison Press for cutting letters and shapes. The CMC is available online at http://www.udayton.edu/centers/cmc/index.html.
The University of Dayton is officially accredited by the following agencies:

- The Accreditation Board for Engineering and Technology, Inc., for the programs in chemical, civil, electrical, and mechanical engineering and in electronic, industrial, and mechanical engineering technology
- The Association to Advance Collegiate Schools of Business (AACSB) for the baccalaureate, accounting and Master of Business Administration programs of the School of Business administration
- The American Bar Association for the School of Law
- The Association of American Law Schools for the School of Law
- The Commission on Accreditation for Dietetics Education (CADE) for the didactic program in dietetics
- The Commission on Accreditation in Physical Therapy Education
- The Human Factors and Ergonomic Society (HFES) for the Master of Arts program in experimental-human factors psychology
- The Masters in Psychology Accreditation Council (MPAC) for the Master of Arts program in Clinical Psychology
- The National Association of Schools of Art and Design
- The National Association of Schools of Music
- The National Council for Accreditation of Teacher Education
- The Higher Learning Commission of the North Central Association of Colleges and Schools
- The National Association of Schools of Business for its School of Business Administration
- The Ohio Board of Regents
- The State of Ohio Department of Education
- The Technology Accreditation Commission of Accreditation Board for Engineering and Technology for the programs in electronic, industrial, manufacturing, and mechanical engineering technology
- The American Chemical Society
- The American Dietetic Association
- The League of Ohio Law Schools for its School of Law
- The National Association for Music Therapy

The University has the approval of the following:

- The American Chemical Society
- The American Dietetic Association
- The League of Ohio Law Schools for its School of Law
- The National Association for Music Therapy

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1 The University of Dayton is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools http://www.ncahlc.org/HLC phone: (312) 263-0456
Institutional Membership

The University holds institutional membership in the following:

- The Academy of Criminal Justice Sciences
- The American Assembly of Collegiate Schools of Business
- The American Association for Higher Education
- The American Association of Colleges for Teacher Education
- The American Association of Collegiate Registrars and Admissions Officers
- The American Association of University Administrators
- The American Association of University Women
- The American Council on Education
- The American Dietetics Association
- The American Home Economics Association
- The American Library Association
- The American Society of Criminology
- The American Society for Engineering Education
- The Associated New American Colleges
- The Association of American Colleges and Universities
- The Association of Catholic Colleges and Universities
- The Association of College and University Housing Officers
- The Association of Governing Boards of Universities and Colleges
- The Associated American Colleges and Universities
- The Catholic College Coordinating Council
- The College Entrance Examination Board
- The College and University Personnel Association
- The Comparative and International Education Society
- The Cooperative Education Association
- The Council for Advancement and Support of Education (CASE)
- The Council for the Advancement of Experiential Learning
- The Council of Graduate Schools
- The Council on Social Work Education
- The Dayton Area Chamber of Commerce
- The Dayton Art Institute (sponsoring)
- The Institute of International Education
- The League of Ohio Law Schools
- The Midwestern Criminal Justice Association
- The National Association of College and University Food Services
- The National Association of College Auxiliary Services
- The National Association for Foreign Student Affairs
- The National Association of Independent Colleges and Universities
- The National Association of Student Personnel Administrators
- The National Catholic Education Association
- The National Council of Catholic Bishops
- The National Scholarship Service and Fund for Negro Students
- The National University Teleconference Network
- The North Central Association of Colleges and Schools
- The Ohio Academy of Science
- The Ohio Association of Colleges for Teacher Education
- The Ohio Association of Private Colleges for Teacher Education
- The Ohio Campus Compact
- The Ohio College Association
- The Ohio Continuing Higher Education Association
- The PBS Adult Learning Satellite Service
- The Society for the Advancement of Education
- The Southwestern Ohio Council for Higher Education

North Central Association, 30 N. LaSalle Street, Suite 2400, Chicago, IL 60602
(800) 621-7440
http://ncahigherlearningcommission.org

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Southwestern Ohio Council for Higher Education (SOCHE)

Students at the University of Dayton may register for courses for credit at Southwestern Ohio Council for Higher Education institutions (see below for a complete list) at the University of Dayton's rate per credit hour. Students will pay any applicable lab or related fees at the host institution. This policy applies only if the course is not available at the University of Dayton, space in the course is available and pertains only to regular sessions of the academic year. The student also is required to have advisor's permission, must satisfy all course prerequisites, and must meet the host institution's admissions requirements. For more information go to soche.org.

The consortium of 22 colleges and universities was established to promote inter-institutional cooperation and community service. SOCHE holds regular conferences for faculty and staff, serves as a clearinghouse for the exchange of information, and promotes projects of educational research and experimentation. Many cooperation programs exist in teaching, research, publishing, college finance and administration, and other areas.

Consortium member schools include: Air Force Institute of Technology, Antioch University, Capital University-Dayton Center, Cedarville University, Central Michigan University, Central State University, Clark State Community College, Edison State Community College, Kettering College of Medical Arts, Miami-Jacobs College, Miami University-Middletown, Nyack College Miami Valley, Sinclair Community College, Southern State Community College, United Theological Seminary, Union Institute & University, University of Dayton, Urbana University, Wilberforce University, Wilmington College, Wittenberg University, and Wright State University.
Besides the regular day sessions, the University conducts special as well as regular evening and summer sessions and offers short-term workshops, institutes, and conferences. All credited courses, whenever offered or in whatever form, conform to the same standards and are governed by the same policies and regulations prevailing during the regular day sessions.

Special Programs serves the part-time students of the Dayton community to make the University and its course offerings, both credit and noncredit, more easily available to them. Similarly, the Office of International Student Services serves students from other countries who are enrolled at the University.

To foster interdisciplinary efforts, the Office of the Provost can administer courses designated UDI (University of Dayton Interdisciplinary) to accommodate interschool offerings and experimental programs. (UDI courses are listed and described in Section X, Interdisciplinary, Experimental and Special Areas, as are other special offerings.)

The Research Institute, an integral component of the University of Dayton, provides important resources and reinforcement for all levels of academic endeavor, as does UDit. (Visit Section X.) A unit of the Army Reserve Officers Training Corps, also based on the campus, offers its academic program through the Department of Military Science. (Visit the Department of Military Science in Academic Information.)

A unit of the Air Force Reserve Officers Training Corps (AFROTC), based at Wright State University, offers it's academic program in coordination with the University of Dayton (see Air Force Reserve Officers Training Corps (AFROTC), Chapter X).
The University of Dayton operates under an early semester, split third-term calendar. The academic year begins with the fifteen-week fall term, which ends before Christmas. The winter term, also fifteen weeks, begins in January and ends early in May. The third, or spring-summer term, is split into two complete sessions of six weeks each.

The advantages of such a calendar are many. Students may enroll for the traditional fall and winter semesters and have a four-month summer vacation; or they may add half terms or full terms to enrich their programs or speed the completion of their degree requirements. The University issues diplomas at the end of each term and holds ceremonies in May and December. Students who must earn their own money can have extra time for employment in spring and summer; or they may enroll for the third term and work during the fall or the winter term, when the employment market is not crowded with other college students.
Academic Calendar 2006-2007

Subject to change

FIRST TERM

Mon, Aug 14  Degrees conferred-no ceremony
Thu, Aug 17  New Faculty Orientation
Thu-Sun, Aug 17-20  New Student Orientation
Sat, Aug 19  Upperclass students move into UD Housing
Sun, Aug 20  Last day to complete registration (1:00 p.m.-3 p.m.)
Mon, Aug 21  Classes begin at 8:00 a.m.
Mon, Aug 21  New Student Convocation at 9:00 a.m.
Mon, Aug 21  9:00 a.m. classes will be held on Fri, Aug 25 at 3:00 p.m.
Fri, Aug 25  Last day for late registration, change of grading options and schedules
Fri, Aug 25  9:00 a.m. classes from Mon, Aug 21 will be held at 3:00 p.m.
Mon, Sep 4  Labor Day-no classes
Fri, Sep 8  Faculty Meeting at 3:00 p.m. (Boll Theatre)
Mon, Sep 11  Last day to change Second Session and full Third Term grades
Mon, Sep 11  Last day to withdraw without record
Fri, Sep 15  Last day to submit Undergraduate candidacy for May 2007 commencement
Fri, Sep 15  Academic Senate Meeting at 3:00 p.m. (KU 331)
Fri, Sep 29  Last day to submit Masters and PhD candidacy for December 2006 graduation
Mon-Tue, Oct 9-10  Mid-Term Break-no classes
Wed, Oct 11  Classes resume at 8:00 a.m.
Fri, Oct 13  Academic Senate Meeting at 3:00 p.m. (KU 331)
Mon, Oct 23  First-year students' midterm progress grades due by 4:00 p.m.
Fri-Sun, Oct 27-29  Parents Weekend
Mon, Nov 6  Last day to withdraw with record of W
Fri, Nov 10  Joint Faculty and Academic Senate Meeting at 3:00 p.m. (KU East Ballroom)
Tue, Nov 21  Thanksgiving recess begins after last class
Sat, Nov 25  Saturday classes meet
Mon, Nov 27  Classes resume at 8:00 a.m.
Fri, Dec 1  Academic Senate Meeting at 3:00 p.m. (KU West Ballroom)
Wed, Dec 6  Last day of classes
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thu, Dec 7</td>
<td>Study Day</td>
</tr>
<tr>
<td>Fri, Dec 8</td>
<td>Feast of the Immaculate Conception-Christmas on Campus-no classes</td>
</tr>
<tr>
<td>Sat, Dec 9</td>
<td>Study Day</td>
</tr>
<tr>
<td>Sun, Dec 10</td>
<td>Study Day</td>
</tr>
<tr>
<td>Mon-Fri, Dec 11-15</td>
<td>Examinations-First Term ends after final examinations</td>
</tr>
<tr>
<td>Sat, Dec 16</td>
<td>Graduation Ceremony at 10:00 a.m.</td>
</tr>
<tr>
<td>Tue, Dec 19</td>
<td>Deficiency reports due in Deans' Offices</td>
</tr>
<tr>
<td>Fri, Dec 22</td>
<td>Grades mailed</td>
</tr>
<tr>
<td>Mon, Jan 22</td>
<td>Last day to change First Term grades</td>
</tr>
</tbody>
</table>

**SECOND TERM**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tue, Jan 2</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>Wed, Jan 3</td>
<td>Classes begin at 8:00 a.m.</td>
</tr>
<tr>
<td>Fri, Jan 5</td>
<td>Academic Senate Meeting at 3:00 p.m. (KU 331)</td>
</tr>
<tr>
<td>Tue, Jan 9</td>
<td>Last day for late registration, change of grading options and schedules</td>
</tr>
<tr>
<td>Mon, Jan 15</td>
<td>Martin Luther King, Jr. Day-no day classes</td>
</tr>
<tr>
<td>Mon, Jan 22</td>
<td>Last day to change First Term grades</td>
</tr>
<tr>
<td>Wed, Jan 24</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>Fri, Jan 26</td>
<td>Faculty Meeting at 3:00 p.m. (Boll Theatre)</td>
</tr>
<tr>
<td>Fri, Feb 2</td>
<td>Last day to submit Masters and PhD candidacy for May 2007 Commencement</td>
</tr>
<tr>
<td>Fri, Feb 9</td>
<td>Academic Senate Meeting at 3:00 p.m. (KU West Ballroom)</td>
</tr>
<tr>
<td>Fri, Mar 2</td>
<td>Academic Senate Meeting at 3:00 p.m. (KU 331)</td>
</tr>
<tr>
<td>Wed, Mar 7</td>
<td>First-year students' midterm progress grades due by 4:00 p.m.</td>
</tr>
<tr>
<td>Fri, Mar 9</td>
<td>Mid-Term break begins after last class</td>
</tr>
<tr>
<td>Sat, Mar 10</td>
<td>Saturday classes meet</td>
</tr>
<tr>
<td>Sat, Mar 17</td>
<td>Saturday classes meet</td>
</tr>
<tr>
<td>Mon, Mar 19</td>
<td>Classes resume at 8:00 a.m.</td>
</tr>
<tr>
<td>Wed, Mar 21</td>
<td>Last day to withdraw with record of W</td>
</tr>
<tr>
<td>Wed, Apr 4</td>
<td>Last day to submit Undergraduate candidacy for August and December 2007 graduations</td>
</tr>
<tr>
<td>Wed, Apr 4</td>
<td>Easter Recess begins after last class</td>
</tr>
<tr>
<td>Sat, Apr 7</td>
<td>Saturday classes meet</td>
</tr>
<tr>
<td>Tue, Apr 10</td>
<td>Classes resume at 8:00 a.m.</td>
</tr>
<tr>
<td>Fri, Apr 13</td>
<td>Faculty Meeting at 3:00 p.m. (Boll Theatre)</td>
</tr>
<tr>
<td>Wed, Apr 18</td>
<td>Bro. Joseph W. Stander Symposium and Honors Convocation-Alternate Day of Learning</td>
</tr>
<tr>
<td>Fri, Apr 20</td>
<td>Academic Senate Meeting at 3:00 p.m. (KU West Ballroom)</td>
</tr>
<tr>
<td>Wed, Apr 25</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>Thu, Apr 26</td>
<td>Study Day</td>
</tr>
<tr>
<td>Fri, Apr 27</td>
<td>Study Day</td>
</tr>
<tr>
<td>Sat, Apr 28</td>
<td>Study Day</td>
</tr>
<tr>
<td>Sun, Apr 29</td>
<td>Study Day</td>
</tr>
</tbody>
</table>
Mon-Fri, Apr 30-May 4  Examinations-Second Term ends after final examinations
Sun, May 6  Commencement Exercises at 10:00 a.m.
Tue, May 8  Grades due by 9:00 a.m. Deficiency slips due in Deans' Offices
Fri, May 11  Grades mailed
Mon, Jun 11  Last day to change Second Term grades

THIRD TERM-FIRST SESSION

Fri, May 11  Last day to complete registration
Sat, May 12  Saturday classes meet
Mon, May 14  Classes begin at 8:00 a.m.
Tue, May 15  Last day for late Third Term-First Session registration, change of grading options and schedules
Thu, May 17  Last day for late full Third Term registration, change of grading options and schedules
Wed, May 23  Last day to withdraw without record from First Session classes
Mon, May 28  Memorial Day-no classes
Mon, Jun 11  Last day to change Second Term grades
Mon, Jun 11  Last day to withdraw with record of W from First Session classes
Fri-Sat, Jun 22-23 Examinations-full Third Term classes do not meet. First Session ends after final examinations.
Tue, Jun 26  Grades due by 9:00 a.m. Deficiency slips due in Deans' Offices
Fri, Jun 29  Grades mailed
Thu, Jul 5  Last day to withdraw without record from full Third Term classes
Fri, Jul 6  Last day to submit Masters and PhD candidacy for August 2007 graduation
Mon, Jul 30  Last day to change First Session grades

THIRD TERM-SECOND SESSION

Fri, Jun 22  Last day to complete registration
Sat, Jun 23  Saturday classes begin
Mon, Jun 25  Second Session classes begin
Tue, Jun 26  Last day for late Third Term-Second Session registration, change of grading options and schedules
Wed, Jul 4  Independence Day-no classes
Thu, Jul 5  Last day to withdraw without record from Second Session and full Third Term classes
Fri, Jul 6  Last day to submit Masters and PhD candidacy for August 2007 graduation
Mon, Jul 23  Last day to withdraw with record of W from Second Session and full Third Term classes
Mon, Jul 30  Last day to change First Session grades
Fri-Sat, Aug 3-4 Examinations-Second Session and full Third Term end after final examinations
Tue, Aug 7  Grades due by 9:00 a.m. Deficiency slips due in Deans' Offices
Fri, Aug 10  Grades mailed
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon, Aug 13</td>
<td>Degrees conferred-no ceremony</td>
</tr>
<tr>
<td>Mon, Sep 10</td>
<td>Last day to change Second Session and full Third Term grades</td>
</tr>
</tbody>
</table>
# Academic Calendar 2007-2008

**Subject to change**

## FIRST TERM

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon, Aug 13</td>
<td>Degrees conferred-no ceremony</td>
</tr>
<tr>
<td>TBD</td>
<td>New Faculty Orientation</td>
</tr>
<tr>
<td>Thu-Sun, Aug 16-19</td>
<td>New Student Orientation</td>
</tr>
<tr>
<td>TBD</td>
<td>Upperclass students move into UD Housing</td>
</tr>
<tr>
<td>Sun, Aug 19</td>
<td>Last day to complete registration (1:00 pm-3 pm)</td>
</tr>
<tr>
<td>TBD</td>
<td>New Student Convocation</td>
</tr>
<tr>
<td>Mon, Aug 20</td>
<td>Classes begin at 8:00 am</td>
</tr>
<tr>
<td>Fri, Aug 24</td>
<td>Last day for late registration, change of grading options and schedules</td>
</tr>
<tr>
<td>Mon, Sep 3</td>
<td>Labor Day-no classes</td>
</tr>
<tr>
<td>Mon, Sep 10</td>
<td>Last day to change Second Session and full Third Term grades</td>
</tr>
<tr>
<td>Mon, Sep 10</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>Fri, Sep 14</td>
<td>Last day to submit Undergraduate candidacy for May 2008 commencement</td>
</tr>
<tr>
<td>Fri, Sep 28</td>
<td>Last day to submit Masters and PhD candidacy for December 2007 graduation</td>
</tr>
<tr>
<td>Mon-Tue, Oct 8-9</td>
<td>Mid-Term Break-no classes</td>
</tr>
<tr>
<td>Wed, Oct 10</td>
<td>Classes resume at 8:00 am</td>
</tr>
<tr>
<td>TBD</td>
<td>Parents Weekend</td>
</tr>
<tr>
<td>Wed, Oct 17</td>
<td>First-year students' midterm progress grades due by 4:00 pm</td>
</tr>
<tr>
<td>Mon, Nov 5</td>
<td>Last day to withdraw with record of W</td>
</tr>
<tr>
<td>Tue, Nov 20</td>
<td>Thanksgiving recess begins after last class</td>
</tr>
<tr>
<td>Sat, Nov 24</td>
<td>Saturday classes meet</td>
</tr>
<tr>
<td>Mon, Nov 26</td>
<td>Classes resume at 8:00 am</td>
</tr>
<tr>
<td>Wed, Dec 5</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>Thu, Dec 6</td>
<td>Study Day</td>
</tr>
<tr>
<td>Fri, Dec 7</td>
<td>Study Day</td>
</tr>
<tr>
<td>Sat, Dec 8</td>
<td>Feast of the Immaculate Conception/Christmas on Campus-Study Day</td>
</tr>
<tr>
<td>Sun, Dec 9</td>
<td>Study Day</td>
</tr>
<tr>
<td>Mon-Fri, Dec 10-14</td>
<td>Examinations-First Term ends after final examinations</td>
</tr>
<tr>
<td>Sat, Dec 15</td>
<td>Diploma Exercises at 10:00 a.m.</td>
</tr>
<tr>
<td>Tue, Dec 18</td>
<td>Grades due by 9:00 a.m. Deficiency reports due in Deans' Offices</td>
</tr>
<tr>
<td>Fri, Dec 21</td>
<td>Grades mailed</td>
</tr>
<tr>
<td>Tue, Jan 22</td>
<td>Last day to change First Term grades</td>
</tr>
</tbody>
</table>
### SECOND TERM

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri, Jan 4</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>Mon, Jan 7</td>
<td>Classes begin at 8:00 a.m.</td>
</tr>
<tr>
<td>Fri, Jan 11</td>
<td>Last day for late registration, change of grading options and schedules</td>
</tr>
<tr>
<td>Mon, Jan 21</td>
<td>Martin Luther King, Jr. Day-no classes</td>
</tr>
<tr>
<td>Tue, Jan 22</td>
<td>Last day to change First Term grades</td>
</tr>
<tr>
<td>Mon, Jan 28</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>Fri, Feb 1</td>
<td>Last day to submit Masters and PhD candidacy for May 2008 Commencement</td>
</tr>
<tr>
<td>Wed, Mar 5</td>
<td>First-year students’ midterm progress grades due by 4:00 p.m.</td>
</tr>
<tr>
<td>Fri, Mar 14</td>
<td>Mid-Term/Easter break begins after last class</td>
</tr>
<tr>
<td>Sat, Mar 15</td>
<td>Saturday classes meet</td>
</tr>
<tr>
<td>Sat, Mar 22</td>
<td>Saturday classes meet</td>
</tr>
<tr>
<td>Mon, Mar 24</td>
<td>No day classes-Classes resume at 4:30 p.m.</td>
</tr>
<tr>
<td>Wed, Mar 26</td>
<td>Last day to withdraw with record of W</td>
</tr>
<tr>
<td>TBD</td>
<td>Bro. Joseph W. Stander Symposium and Honors Convocation-Alternate Day of Learning</td>
</tr>
<tr>
<td>Fri, Apr 4</td>
<td>Last day to submit Undergraduate candidacy for August and December 2008 graduations</td>
</tr>
<tr>
<td>Wed, Apr 23</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>Thu, Apr 24</td>
<td>Study Day</td>
</tr>
<tr>
<td>Fri, Apr 25</td>
<td>Study Day</td>
</tr>
<tr>
<td>Sat, Apr 26</td>
<td>Study Day</td>
</tr>
<tr>
<td>Sun, Apr 27</td>
<td>Study Day</td>
</tr>
<tr>
<td>Mon-Fri, Apr 28-May 2</td>
<td>Examinations-Second Term ends after final examinations</td>
</tr>
<tr>
<td>Sun, May 4</td>
<td>Commencement Exercises at 10:00 a.m.</td>
</tr>
<tr>
<td>Tue, May 6</td>
<td>Grades due by 9:00 a.m. Deficiency slips due in Deans' Offices</td>
</tr>
<tr>
<td>Fri, May 9</td>
<td>Grades mailed</td>
</tr>
<tr>
<td>Mon, Jun 9</td>
<td>Last day to change Second Term grades</td>
</tr>
</tbody>
</table>

### THIRD TERM-FIRST SESSION

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri, May 9</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>Sat, May 10</td>
<td>Saturday classes begin</td>
</tr>
<tr>
<td>Mon, May 12</td>
<td>Classes begin at 8:00 a.m.</td>
</tr>
<tr>
<td>Tue, May 13</td>
<td>Last day for late Third Term-First Session registration, change of grading options and schedules</td>
</tr>
<tr>
<td>Thu, May 15</td>
<td>Last day for late full Third Term registration, change of grading options and schedules</td>
</tr>
<tr>
<td>Wed, May 21</td>
<td>Last day to withdraw without record from First Session classes</td>
</tr>
<tr>
<td>Mon, May 26</td>
<td>Memorial Day-no classes</td>
</tr>
<tr>
<td>Mon, Jun 9</td>
<td>Last day to change Second Term grades</td>
</tr>
<tr>
<td>Mon, Jun 9</td>
<td>Last day to withdraw with record of W from First Session classes</td>
</tr>
<tr>
<td>Fri-Sat, Jun 20-21</td>
<td>Examinations-full Third Term classes do not meet.</td>
</tr>
</tbody>
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### Third Term-Second Session

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri, Jun 20</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>Sat, Jun 21</td>
<td>Saturday classes begin</td>
</tr>
<tr>
<td>Mon, Jun 23</td>
<td>Second Session classes begin</td>
</tr>
<tr>
<td>Tue, Jun 24</td>
<td>Last day for late Third Term-Second Session registration, change of grading options and schedules</td>
</tr>
<tr>
<td>Wed, Jul 2</td>
<td>Last day to withdraw without record from Second Session and full Third Term classes</td>
</tr>
<tr>
<td>Thu, Jul 3</td>
<td>Last day to submit Masters and PhD candidacy for August 2008 graduation</td>
</tr>
<tr>
<td>Fri, Jul 4</td>
<td>Independence Day-no classes</td>
</tr>
<tr>
<td>Mon, Jul 21</td>
<td>Last day to withdraw with record of W from Second Session and full Third Term classes</td>
</tr>
<tr>
<td>Mon, Jul 28</td>
<td>Last day to change First Session grades</td>
</tr>
<tr>
<td>Fri-Sat, Aug 1-2</td>
<td>Examinations-Second Session and full Third Term end after final examinations</td>
</tr>
<tr>
<td>Tue, Aug 5</td>
<td>Grades due by 9:00 a.m. Deficiency slips due in Deans' Offices</td>
</tr>
<tr>
<td>Fri, Aug 8</td>
<td>Grades mailed</td>
</tr>
<tr>
<td>Mon, Aug 11</td>
<td>Degrees conferred-no ceremony</td>
</tr>
<tr>
<td>Mon, Sep 8</td>
<td>Last day to change Second Session and full Third Term grades</td>
</tr>
</tbody>
</table>
Student Life and Services

Please select a subsection using the menu to the right.
Office of Residence Education

One of the most challenging and growth-oriented experiences available to students is residential living. The University strives to provide a cocurricular environment that both supports and challenges students to reach their full potential. Understanding, mutual respect, and openness to diversity fosters the development of a positive community.

Towards this goal, professional, graduate, and undergraduate staffs in the Office of Residence Education are creating living and learning environments within University residence halls, suites, apartments, and houses. A student elected governance board or council represents residential student opinions and assists the residence education staff in providing programmatic initiatives for each on campus living area.
Residential Services

The Department of Residential Services' goal is to provide students clean, comfortable residential facilities as well as offer services that enhance both academic and personal growth while at UD. Residential Services takes pride in providing living accommodations that will become an integral part of the total college experience as students learn, lead, and serve UD, the Dayton community and the world around us.

Residential Services offers a variety of living options including traditional residence halls, suites, quads, apartments, and houses.

The Residential Services team that will be of assistance to you while living in residential facilities includes the Facilities and Operations Managers, Housekeeping Supervisors, Day and Night Receptionists, Operations Coordinators, Safety Coordinator, Maintenance staff, and Grounds staff.

All first-year and sophomore students are required to live in the University residential community unless they are married, are twenty-one years of age or over, or are local residents living with their legal guardian within 40 miles of The University of Dayton campus. Junior and senior students have the opportunity to arrange their own housing in University apartments and houses, or to choose non-university housing.

Upon official acceptance to the University of Dayton, the Office of Enrollment Management sends all new students information about and instructions for securing residential living accommodations. However, all questions regarding obtaining housing should be directed to the Office of Residential Services at 937-229-3317 or by visiting the housing website at http://housing.udayton.edu.
Dining Services

The University of Dayton Dining Services operates three full-service student dining facilities located in Kennedy Union, Marycrest Complex, and the V.W. Kettering Residence Hall. Kennedy Union and Marycrest offer a la carte dining as well as carry-out. Kettering Hall offers an all-you-can-eat concept and a 'Grab & Go' option. The Emporium, a mini grocery store with a full service deli, is located in the Marianist Residence Hall, and Stuart's Landing, a convenience store, is located in Stuart Hall Complex. Dining Services also operates The Galley, a pretzel/ice cream/gourmet coffee shop located in Kennedy Union, and The Chill, a juice bar with healthy snack options, located in The RecPlex. All students living in Marycrest, Stuart, Founders, Marianist, and Virginia Kettering Residence Halls are required to purchase a meal plan. Meal plan options are as follows:

- Any 12 Meal Plan - Provides any 12 meals, breakfast, lunch, or dinner, over seven days, starting with lunch the day before the first day of classes.
- Any 15 Meal Plan - Provides any 15 meals, breakfast, lunch, or dinner over seven days, starting with lunch the day before the first day of classes.
- All 21 Meal Plan - Provides breakfast, lunch, and dinner over seven days, starting with lunch the day before the first day of classes. Note: Only one meal per meal period is allowed. For example, two lunches on the same day are not permitted with meal plan options.
- The Flex Pan and Mega Flex Plan - Provides complete flexibility, functioning as a debit account.
Office of Student Involvement and Leadership

The Office of Student Involvement and Leadership provides support, direction, and programming opportunities for students and officially recognized student organizations in an effort to enrich and enhance academic life and foster a spirit of community. In addition, the office is responsible for registering all student organization-sponsored events, granting recognition to all student organizations, approving funding, providing assistance for organization advisors, publicity approval, programming the Flyer TV information channel, coordinating campus-wide events, and planning leadership workshops and retreats.

The office works directly with commuter students, the FLYER NEWS, FLYER RADIO, DAYTONIAN, ORPHEUS, Campus Activities Board, Distinguished Speakers Series, Christmas on Campus, fraternities and sororities, and all professional, honorary, academic and special interest organizations.
John F. Kennedy Memorial Union

The John F. Kennedy Memorial Union, centrally located on the campus, offers comfortable surroundings and a variety of services for the University community. Lounges provide free space for discussion, studying, and socializing. The Union operates the Hanger games room with bowling lanes, pool tables, lounge space, a cafe, and video games. The ground-floor food court includes a full-service deli, pizza, southwest cuisine, daily specials, grill favorites, and desserts. Automatic teller machines, display cases, and vending machines are housed in the Union, as are student offices for Student Government Association, Flyer News, Daytonian, Flyer TV, CAB, and a lounge for commuter students. Other offices in the Union are those of the Information Center, Box Office, Gift Shop, Student Involvement and Leadership, KU Dining Services, Catering Services, and the travel agency. Meeting rooms, a ballroom, Boll Theatre, and University vans are available for use and can be reserved by contacting 229-3333 (Kennedy Union Room 241). A variety of cultural, educational, social, and recreational activities are presented in the Union regularly. Among the continuing programs are theatrical productions, dance ensembles, and recitals and concerts by students and faculty members.
Health Center

Medical care is available at the Health Center to all full-time and part-time undergraduate, graduate, and law students. During the academic year, the Health Center is open from 8:30 a.m. to 6:00 p.m. on weekdays, except University holidays. A physician is available for consultation every weekday morning and afternoon throughout the year, except University holidays. Summer hours are 8:30 a.m. to 4:30 p.m. with limited physician hours. Students should call the Health Center to schedule an appointment at 93131 or 937-229-3131. In case of emergency, call Public Safety, 937-229-2121.

Pre-admission physical examinations are not required, but students with chronic health problems are advised to have their physicians send records or recommendations to the medical director. Every student born after 1955 is required to show evidence of immunity to measles, mumps, and rubella. Students fill out these dates as part of the on-line admission process.

Undergraduate and law students pay a Basic University Fee, which covers the cost of services at the Health Center. Graduate and ELMI students, who do not pay this fee, are charged for services received at the Health Center. The charge for a physician visit ranges from $45 to $75, depending on the length of the visit and the type of services provided. Charges are made for all medicines dispensed, allergy injections, laboratory tests, and x-ray examinations.

All charges incurred at the Student Health Center are reported to the Bursar to be entered on the student's account with the University. Inquiries regarding bills or University-sponsored insurance should be made at the Health Center between 9:00 a.m. and 3:00 p.m. weekdays. Itemized statements can be provided upon patient request. These are not automatic and the Health Center does not bill outside insurance companies directly, however students should bring a copy of their health insurance/pharmacy cards to each visit.

Full-time graduate and law students (6 hours or more) and undergraduates students are eligible for University-sponsored health and accident insurance. For information about this program, visit the Health Center, or call 937-229-3131.
Counseling Center

The main purpose of the Counseling Center is to assist students in self-development, including personal adjustment, career planning, and social skills building. All students in need of objective insights or merely "a listening ear" are encouraged to make use of the Center's services. No student's concern is too minor to explore. This is usually accomplished through one-to-one and group counseling, although there are opportunities for workshops on certain topics, consultation, and outreach programming for student, faculty, and staff groups. The Center also provides career and personality testing services.

Because counseling often involves sensitive personal matters, discussions between counselors and students are strictly confidential. An exception occurs when students' problems become life threatening. The University and the student may enter into a contract to establish conditions regarding required treatment/assessment, if there is imminent danger. The student may decide to use the services offered by the University or to receive treatment elsewhere. In the latter case, periodic review by the University is required to confirm that contract conditions are met. For the welfare of the student, problems warranting treatment more intensive than the University can offer may require temporary medical withdrawal from the University. The student may be readmitted to the University upon acceptable completion of contract conditions.

A one-time counseling fee charged to all matriculating undergraduate students, Law School students, and Graduate Assistants covers the cost of services by the Counseling Center while they are enrolled at the University. Non-Graduate Assistants, graduate students, and nonmatriculated undergraduate students pay charges on a fee-for-service basis. The International Association of Counseling Services, Inc, accredits the Center.
Critical Issues Education

The Office of Educational and Special Programs coordinates educational efforts on such topics as alcohol, eating disorders, relationships and sexuality. Critical Issues Education seeks to educate students about some of their most basic life experiences, decisions, and developmental processes. The program combines the issues of alcohol and other drug use, sexuality, relationships, gender issues, values, and diversity in its programs.

Critical Issues Education includes the sexual assault prevention program; a peer education program called START (Students Talking About Real Topics); “On Tap” (A support group for students struggling with alcohol and drug problems); a major speakers series; visual education projects and representation on the Gay, Lesbian, Bisexual, Transgender Steering Committee. The Office of Educational and Special Programs collaborates with other areas of the University community to program on critical issues topics.
Services for Diverse Student Populations

The University of Dayton is committed to creating an environment that celebrates cultural diversity while focusing on the Marianist philosophy of service, leadership and community. The division of Student Development provides facilities and services to support African-American and Latin-American undergraduate students through the Office of Diverse Student Populations. This support often assumes the form of special programming that reflects the cultural heritage of these populations, as well as supplemental counseling and advising. The staff in the Office of Diverse Student Populations works closely with academic deans, faculty members, and other administrative offices to provide a nurturing community that promotes academic success.
Flyer Express

Flyer Express is a declining-balance prepaid account accessed with your Campus OneCard. It is the convenient way to pay for products and services on and off campus. Your Flyer Express eliminates the need to carry cash and saves you the hassle of searching for correct change. Flyer Express has you covered with whatever you need, 24 hours a day, 365 days a year. It is safe, fast, and convenient to use. The money in your Flyer Express account is carried over from one semester to the next and from year to year.

The Campus OneCard office offers you multiple options to deposit funds into your account.

- Online at https://flyerexpress.udayton.edu/AddFlyer.aspx
- Phone: (937) 229-2456 or 1-800-259-8864 (option 4)
- In person at the Bursar’s office in St. Mary’s Hall


Explore General Information:

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II. Student Life and Services
   - Office of Residence Education
   - Residential Services
   - Dining Services
   - Office of Student Involvement and Leadership
   - John F. Kennedy Memorial Union
   - Health Center
   - Counseling Center
   - Critical Issues Education
   - Services for Diverse Student Populations
   - Flyer Express
   - Bookstore
   - New Student Orientation
   - Public Safety
   - Campus OneCard
   - Student Handbook
   - Campus Ministry
   - Athletics
   - Campus Recreation
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   - Commuter Student Services
   - Learning Enhancement and Academic Development (LEAD) Services
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III. Admission
IV. Financial Information
V. Academic Regulations
VI. College of Arts and Sciences
VII. School of Business Administration
VIII. School of Education and Allied Professions
IX. School of Engineering
X. Interdisciplinary, Experimental and Special Areas
XI. Directories
The University of Dayton Bookstore is a service facility operated by the University. Its primary purpose is to provide for the intellectual needs of the University community by making available all required textbooks and by providing a source for essential engineering, art and academic supplies which students need in their areas of study. The University Bookstore also offers a convenient source for students to purchase everyday necessities, gifts, greeting cards, clothing, general books health care items, and many items bearing the University name and/or logo. American Express, Discover, Flyer Express, MasterCard, Visa, and personal checks are accepted with proper I.D.
New Student Orientation

Each year new undergraduate students arrive a few days before the opening of the academic year to participate in the New Student Orientation Program. Its purpose is to familiarize students with the campus and to assist them in their transition to student life by providing a variety of academic and social functions. The New Student Orientation Program is conducted by the Office of Educational and Special Programs in the division of Student Development.
Public Safety

The Department of Public Safety seeks to provide a safe and secure environment for the entire University of Dayton community, which includes the students, faculty, staff, and visitors. The department provides police, parking, and emergency medical services to the U.D. campus community. The Student Cadet program is also operated by Public Safety. Public Safety offices are located on ground floor of College Park Center at 1529 Brown St.

Police

Police operations include enforcement of laws and campus regulations, criminal investigation, crime prevention, and providing for the physical security of University of Dayton property and interests. The department has primary jurisdiction for law enforcement and criminal investigation on all University of Dayton owned or controlled property, and all public property within the defined campus boundaries according to the mutual aid agreement with the City of Dayton Police Department. Police officers are all graduates of the Basic Police Academy and are sworn law enforcement officers, the same as their municipal counterparts. All full time police officers are required to maintain certification to provide emergency medical services to the campus community.

Emergency assistance is available 24 hours per day, seven days a week. Call 911 in the event of an emergency, or 229-2121 for all other assistance.

Parking Services

Parking Services is responsible for management of the University's more than 5,500 parking spaces located in over 50 parking lots, and with enforcement of parking regulations. Lots are patrolled daily by Parking Services Representatives, who issue citations to violators. The following information applies to student parking.

- Campus parking facilities are extremely limited. We recommend you determine parking availability before bringing a vehicle to campus, as on street parking is also severely restricted in the vicinity of campus.
- All vehicles parked on University of Dayton property must have a valid parking permit displayed, except during open parking hours.
- First-Year residential students will NOT be permitted to bring vehicles to campus.
- Graduate/law students and graduate assistants will be sold student parking permits.
- Commuting students will be sold permits for Lot S1.
- Students living in landlord housing within one mile of campus will be sold resident student permits.
- Resident student parking priority will be given to upper class students with the highest priority being given to students with an internship or co-op, or senior education major.
- Information concerning permit sales will be disseminated to students annually.
- All students are required to apply online through the parking website at www.udayton.edu/~safety/parking.
- Evening students are sold N permits, which are valid in Lot B at 4:15 p.m., Lots A,C,P and S-1 at 4:00 p.m. and anytime weekends in any campus parking lot except those marked with a double letter. N permits will be honored in Lot S-1 anytime during the summer sessions.
- Students may contact Parking Services at 937-229-2128, M-F 8:00
Rescue Squad

The Department of Public Safety also provides around the clock emergency medical services, primarily through the support of the University of Dayton Student Volunteer Rescue Squad, which is comprised of full-time undergraduate students. All UD Student Rescue Squad members are nationally registered EMT-Bs and volunteer their time to serve the community.

Student Cadet Program

The Student Cadet Program consists of part-time student employees who operate the Student Escort Service through the Department of Public Safety. The Student Escort Service is a program that provides free transportation for students within the campus community with a focus on crime prevention.
Campus OneCard

The Campus OneCard is the official photo identification card of the University of Dayton. It provides easy access to numerous University facilities and services, including Flyer Express, dining services meal plans, the RecPlex, Roesch Library, and building access.

Your Campus OneCard can be used as a form of payment for food, textbooks, supplies, laundry, printing, and other essential services. It is safe, fast, and convenient to use.

To get your Campus OneCard, stop by the card office located in room 102 of the Powerhouse. The first Campus OneCard received is issued at no charge. All students must be registered for classes before getting their card. Visit the Campus OneCard website http://onecard.udayton.edu/ for a detailed view of the Campus OneCard program.
Each student at the University of Dayton is responsible for knowing and observing the policies, regulations, and procedures contained in the official student handbook. This publication also provides useful information on such subjects as University services, student organizations, and resource numbers.

The entire Student Handbook is available at the website: http://www.udayton.edu/~studev/studenthandbook.

The "University of Dayton Standards of Behavior" section of the Student Handbook is printed in booklet form and distributed to First-Year students. A limited number of booklets are available at the Kennedy Union Information Desk for upperclass students desiring a hard copy. All Student Handbook information provided on the website may be printed from personal computers and printers.

Changes in disciplinary policies and procedures made during an academic year will be announced to the student population via campus e-mail. The website version of the Student Handbook will be updated upon implementation of said change.
Campus Ministry

With thirty staff persons and a wide variety of programs, UD has one of the largest and most active Campus Ministry programs anywhere. Our mission, inspired by the University’s Marianist tradition, is to form persons and communities in a lived faith, expressed in worship, in challenging and compassionate relationships, and in commitment to justice and service. Our programs are informed by the Roman Catholic Tradition, but Campus Ministry activities are open to all students and encourage the involvement of those from other Christian traditions and other faiths. The diversity of the UD community is recognized and celebrated through special programs for our diverse student populations.

Our primary student related activities are outlined below.

Residence Life Ministry

Campus Ministry is active in all residential areas. Through the coordination of full time campus ministers, graduate assistants, and student leaders, Campus Ministry calls forth student leadership and participation in activities such as faith sharing groups, bible studies, retreats, Masses, service opportunities, social opportunities, and other prayer experiences. In these and other ways, campus ministry is able to accompany, encourage and support students in areas of leadership, personal growth and spiritual development.

Center for Social Concern

The University of Dayton is committed to social justice education, direct service to the poor and marginalized, and work on behalf of social justice: changing unjust structures in society that oppress and marginalize human beings. Through its Center for Social Concern, Campus Ministry provides many such opportunities for students, faculty and staff. Over thirty service clubs and many annual events provide opportunities for direct service to the poor and marginalized. Spring BreakOut Trips and Summer Immersion Trips, along with the Summer Appalachia Program offer opportunities for service and justice education in domestic and international settings. Guest speakers and a number of other activities also contribute to these goals. At the heart of it all is a wide array of opportunities to reflect on the service and justice work in the context of faith.

Retreats and Faith Communities

The Retreats and Faith Communities Office in Campus Ministry offers a wide variety of retreats for sophomores, juniors, seniors, and graduate students. The retreats are varied in size, style, theme, and focus. Many of the underclass retreats are led by student teams who prepare through weekly meetings. Some retreats venture to the wilderness and reflect on faith while enjoying nature and sleeping under the stars; while others offer a more traditional retreat setting and reflection through activities, discussion, and prayer services. A variety of other programming is offered, including specific programming for the student neighborhood, small Christian communities, and retreat reunions.

Liturgies and Prayer

Students, faculty and staff are very involved in the liturgical life of the University through lay ministries (e.g. lectors, communion ministers, music ministers) at daily and Sunday celebrations of the Eucharist. The Sacrament of Reconciliation and Eucharistic Adoration are scheduled regularly, and other
special prayer services occur from time to time. An interdenominational Christian worship service is held every Sunday during the school year, and other opportunities for worship are available in the local community.
Many people throughout the country have come to know the University of Dayton through the accomplishments of its intercollegiate athletic teams. Participation in athletics is part of the educational development the University offers all students. There are seven men's intercollegiate sports: football, soccer, and cross country in the fall; basketball in the winter; and baseball, golf, and tennis in the spring. There are ten women's intercollegiate sports: volleyball, soccer, and cross country in the fall; basketball and indoor track in the winter; and softball, rowing, golf, tennis, and outdoor track in the spring. Cheerleading tryouts, open to all students, are held each year.

Any student, male or female, who plans to participate in a varsity sport must be certified through the NCAA Initial-Eligibility Clearinghouse. Additionally, student-athletes are required to complete a physical examination and provide documentation of their medical history and current insurance coverage.
Campus Recreation

The Department of Campus Recreation is located on the "M" level of the RecPlex. The RecPlex, which opened in January 2006, houses a state of the art recreation facility. The facility may be used at no added expense by all full time undergraduate students. The facility may be used by graduate students who purchase a RecPlex Membership. Highlights of the building include:

- Main Gym with four full sized wood court basketball courts and three racquetball courts, one of which can be converted for squash.
- MAC Gym with two rubberized courts surrounded by a professional grade dasher board system adequately sized to play a variety of sports including tennis, indoor soccer, basketball, volleyball, and floor hockey.
- Aquatic Center with a 25 yard eight lane lap pool, four foot deep vortex leisure pool, diving well, and an eight-person spa.
- Fitness Studios A, B, and C which are used for a variety of instructional and group fitness classes.
- 10,000 sq. ft. Fitness Floor is home to 80 cardio machines and 70 strength training stations.
- Wellness Assessment Lab from which services such as athletic training, massage, and personal training consultation are offered.
- Four lane 1/8 of a mile rubberized jogging track.

Campus Recreation provides a variety of intramural activities in which anyone can find exercise surrounded by a unique spirit of fun and competition. Activities include softball, flag football, indoor and outdoor soccer, volleyball, basketball, dodge-ball, corn-hole, ultimate frisbee, bowling, racquetball, baseball, life-preserver water polo, walleyball, and floor hockey. All students are invited to participate; ability is not important, just the desire to play. Please stop by and ask about our programs.

Another popular feature of the Department of Campus Recreation is the Sports Club Program. Currently, there are 26 recognized sports clubs on campus. The Sports Club Program offers students the opportunity to participate on a competitive level, while at the same time learning and developing new skills. Anyone interested in joining a sport club or starting a new one is encouraged to come in and speak with the Sports Club Coordinator.

Schedules concerning free play hours and scheduled events may be secured from the Campus Recreation Office. For more information, please visit www.udayton.edu/~recsport/ or call 229-2731.
Career Services

Services and resources are comprehensive, designed for every phase of the career planning process. All University of Dayton students, including first-year students and alumni, are encouraged to register for online resources provided by Career Services.

The most utilized services are:

- Cooperative education
- Interviewing techniques seminars
- Practice job interviews
- On-campus interviews
- Resume critiques
- Online professional job postings
- Job strategy seminars
- Data on job market, salary and employment trends
- Experiential education opportunities, including
  - Internships
  - On-line alumni career network
- Career advising
- Career Fairs

Workshops on interviewing and job search strategies are regularly scheduled and publicized each term. Practice interviews with a professional staff member can be videotaped and evaluated upon request to prepare the student for actual on-campus interviews by company representatives.
Experiential Programs

The goal of any experiential learning program is to provide practical work experience associated with a student's course of study and/or life experience through service learning/volunteering opportunities. All students pursuing a four-year degree program should consider one or more of these programs.

- Internships
- Career-related summer employment
- Cooperative education
- Student contract program positions
- Externships and/or job shadowing
- Community/service learning
- Volunteer opportunities
- International placement or study/work abroad opportunities

Internship, summer employment, cooperative education and student contract program positions are posted on the Career Services homepage at http://careers.udayton.edu.

Simply follow the steps listed in the registration process to register for this online system.
Commuter Student Services

Commuter Student Services provides an essential aspect to the University of Dayton campus. Commuter students' knowledge and pride of the Dayton area help make out-of-town students feel more comfortable and at home while at the University. A lounge for commuter students is located in Kennedy Union 118 which is used for study, relaxation, and meeting friends. A telephone, microwave, and refrigerator are provided for the convenience of commuter students.

The assistant director of Student Involvement and Leadership is advisor to the commuter students and provides services and facilities to meet the educational, developmental and physical needs of these students and maintains contact with the academic and nonacademic areas of the University to increase understanding of these specific needs.
Learning Enhancement and Academic Development (LEAD) Services

LEAD's goals are to assist students in understanding themselves as learners, to improve successful course completion rates, and to improve student retention rates through graduation. To that end LEAD provides structured, customized programs and services that meet the unique needs of designated undergraduate populations and the general student population.

LEAD Programs

Currently, LEAD supports a number of high-risk student populations, as well as students in general education courses. As a key employer of students on campus, we develop student leaders, through training and placement of students in leadership roles such as team assistants, tutors and peer facilitators.

Courses

- Developmental Mathematics Courses (DEV 060)
- Probationary Learner Enrichment Workshop (DEV 055) for first-year students

Interventions for Designated Populations

- Summer Trial Enrollment Program (STEP)
- Business Special Enrollment Program Support (BSEP)
- Midterm intervention for first-year students
- Louis Stokes Alliance for Minority Participation (LSAMP)
- Assistive technology training
- Assistive technology laboratory

Peer-Facilitated Learning Support linked to Specific Courses

- Supplemental Instruction (SI) in selected Humanities Base courses: HST 103, PHL 103, REL 103, and BIO 151
- Tutor-supported English 101 and 102 (ENG T-Sections)
- Math 102/128/129 Workshops

Peer-Facilitated Learning Support for General Education Courses

- Drop-in tutoring in general education classes
- The Write Place (Writing support)

Professional Support Services

- Reasonable accommodations for students with disabilities
- Support & consultation for athletes
- Collaborative peer facilitator trainings
- Faculty Exchange Series presentations
- Disability management advising
- Alternative formats production
- Conversation group for international students in the MBA program

Business Special Enrollment Program (BSEP): An academic and residential support program developed collaboratively with the School of Business Administration and offered to a select group of entering first-year students with the goal of improving retention. Small student cohort groups follow similar academic schedules, as well as participate in Supplemental Instruction. Students are enrolled in Math 128 Study Group.
if appropriate. Participants also live in proximity to one another in the Residence halls to provide increased opportunities for group study.

**Developmental Mathematic (DEV 060):** Offered to students who need a stronger foundation in mathematics to be adequately prepared for success in the math course(s) required for graduation. Students are assigned to DEV 060 after a careful review of ACT/SAT scores, high school transcripts, and the results of the math placement test taken on the Virtual Orientation website.

**Drop-in Tutoring:** Drop-in Tutoring is offered for most entry-level general education courses and is available to all students. Tutors receive ongoing training and are nationally certified. Tutoring schedules are available online and in the LEAD office. Tutors are typically available during the afternoon and evening hours and there is no formal sign up is required.

**ENG 101/102 Tutorial Sections (T-Sections):** T-sections are available to designated Department of English faculty and entails support of The Write Place Consultants. The writing consultants attend all of the class meetings, read all of the assignments, take notes, and engage in class discussions. They also meet twice each week with students to present composition and grammar concepts for 30 minutes. During the remaining 45 minutes of the tutorials, the consultants engage the students in writing assignments. Finally, the consultants meet with students in The Write Place for individual conferences. Students are place in T-section by their Dean's Office.

**Learner Enrichment Workshop (DEV 055):** Is a seven-week course provided to first-year students on academic probation. The course is designed to provide opportunities for students to identify their learner strengths and weaknesses, acquire and apply improved study-skills techniques, and plan for the continual development of academic goals. To accomplish these objectives, students self-report their learner preferences through on-line assessment tools. The information gathered through these assessments is used to develop a personalized learner profile. Students use their learner profile information in individual assignments and group processing activities. They then apply the profile information to specific behavioral changes.

**Louis Stokes Alliances for Minority Participation (LSAMP):** Offered to students for designated populations in mathematics and natural sciences, LSAMP provides an increased and intentional learning support structure. It offers collaborative learning sessions facilitated by upper-class student leaders. LSAMP is a grant funded program provided in conjunction with the Ohio Sciences and Engineering Alliance.

**Math 128 Workshop and Math 102/128/129 Study Groups:** Offered to students who are a part of BSEP, as well as other selected Math 102/128/129 students who could benefit from additional math support. It offers structured collaborative learning sessions facilitated by upper-class student leaders.

**Summer Transition Enrollment Program (STEP):** A summer bridge program that combines structured academic support and residential programming with the goal of facilitating transition to the University of Dayton. Participants are promising first-year applicants chosen by the Office of Admission because of their potential for academic success. Students who successfully complete the program demonstrate academic proficiency and the ability to participate effectively in the UD community.

**Supplemental Instruction (SI):** A nationally recognized, non-remedial learning model in which students acquire and practice successful learning strategies. Peer-facilitated study groups meet regularly outside of class times to process course material presented by the instructor. Participants are first-year students selected by the Office of Admission based on a careful review of high school transcripts and standardized testing. Mandated SI is offered in selected sections of History 103, Philosophy 103, and Religion 103. Optional Supplemental Instruction is available in designated sections of Biology 151 for declared first-year Science majors.
The Write Place: The Write Place consultants work with all students in their effort to become better writers, not to produce one perfect paper. To this end, The Write Place consultants do not proofread papers, nor do they tell writers what to write. The writing conference is a collaborative activity during which the consultant actively listens, responds as a reader, and uses a Socratic approach to problem-solving. Student-writers are encouraged to talk through the thinking and planning process that is central to all stages of the writing process.
Learning Enhancement & Academic Development: Disability Services (DS)

The University of Dayton is committed to including individuals with disabilities as full participants in its programs, services and activities through compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990.

LEAD: Disability Services ensures that qualified students with disabilities have equal access to educational opportunities at the University of Dayton so they can participate, freely and actively, in all facets of University life. LEAD is part of the Ryan Harris Learning and Teaching Center.

LEAD: Disability Services:

- Ensures reasonable accommodations to qualified students with disabilities.
- Assists the university to comply with the provisions of the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973.
- Encourages the development of self-advocacy and self-determination skills.
- Assists the University community to understand the functional limitations of disabilities and to eliminate the physical, technical, and attitudinal barriers that limit the range of opportunities for students with disabilities.

The Self Identification Process

Students registered with LEAD: Disability Services are entitled to reasonable accommodations from the University of Dayton. For students who will receive reasonable accommodations in classroom settings, LEAD: Disability Services provides a Self Identification form. This form identifies recommendations for reasonable accommodations.

Students hand deliver to the professor of the course, a Self ID form completed and signed in consultation with LEAD: Disability Services. Students initiate a discussion with the professor to implement reasonable accommodations. All students are ultimately responsible for their own academic achievement. It is up to the student to utilize agreed upon reasonable accommodations.

Roles and Responsibilities of Students, Faculty and Disability Services

Students have the right to:

1. Freedom from discrimination based on their disability
2. Confidentiality in keeping with University policy and federal law
3. Equal access to programs and services offered at the University of Dayton
4. An appointment to file an appeal or grievance with the University 504 Compliance Officer if needed
5. Timely and effective implementation of reasonable accommodations

Students must:

1. Register with LEAD: Disability Services (DS) and provide appropriate disability verification
2. Contact Disability Services to request reasonable accommodations
3. Provide professor with a copy of their Self-Identification Form
4. Meet and discuss with their professors how accommodations will be implemented
5. Provide adequate notice for accommodations requests as delineated in LEAD: Disability Service's Handbook
6. Inform Disability Services if there are difficulties with working out arrangements for reasonable accommodations
7. Fully participate in interactive process for reasonable accommodations

Faculty have the right to:

1. Uphold policies contained in the Student Handbook and/or academic regulations for all students regardless of disability.
2. Appeal the recommendations for reasonable accommodations if a reasonable accommodation will result in a fundamental alteration of the program.

Faculty should:

1. Include an Announcement & Syllabus Statement. In order to assure that students are aware that they must request services before the university is legally obligated to provide them, faculty should announce at the first class and include in the course syllabus the following syllabus statement:

   "To request reasonable accommodations due to disability, please contact LEAD: Disability Services in the LEAD office in the Learning Teaching Center, LTC 023, 229-2066. If you have a Self-identification form indicating that you have a disability that requires reasonable accommodations, please present it to me so that we may discuss your needs."

2. Discuss requests with the student. Once a student has presented a Self-ld form, faculty have an obligation to enter the process for reasonable accommodations via a discussion with the student regarding how to implement reasonable accommodations.
3. Contact LEAD: Disability Services by calling 92066 if they have any concerns after meeting with the student about reasonable accommodations. Eligible students are entitled to LEAD: Disability Services approved reasonable accommodations until concerns are resolved.
4. Refer students to LEAD: Disability Services if a student brings disability verification directly to faculty.

LEAD: Disability Services must:

1. Determine eligibility based on appropriate disability verification provided by a qualified professional.
2. Ensure reasonable accommodations to qualified students with disabilities.
3. Determine reasonable accommodations with the student and other university officials, when necessary.
4. Assist the University to comply with the provisions of the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973.
5. Encourage the development of self-advocacy and self-determination skills.
6. Provide confidentiality of student records according to FERPA regulations and other relevant statutes.
7. Assist the university community to understand the functional limitations of disabilities and to eliminate the physical, technical, and attitudinal barriers that limit the range of opportunities for students with disabilities.

Disability Verification:

Students must provide LEAD: Disability Services with disability verification. Disability verifications may include medical or psychological records from a qualified professional. Disability verifications must substantiate a disability under Section 504 of the Rehabilitation Act of 1973 or Title III of the Americans with Disabilities Act of 1990.

Please forward disability verification to:
Admission

Each application for admission to the University of Dayton is considered individually. The admission committee reviews the academic achievement, aptitude, and interest of every applicant with the goal of admitting students who possess the intellectual ability and the motivation to profit best from their attendance at the University of Dayton.
Application for Admission

All applications for first-year admission must be submitted to the director of admission via the University of Dayton's electronic application. Applicants are encouraged to submit applications early in their senior year of high school. There is a priority application deadline of January 1.

The applicant must also present an official transcript of courses and grades in secondary school and the results of either the SAT Reasoning or ACT. Any person whose native language is not English must submit an acceptable score on the Test of English as a Foreign Language (TOEFL). Exceptions to this policy may be made for students whose education has been in schools where English is the principal language of instruction.

Admission is based on the total information submitted by the applicant on his or her behalf. It is the applicant's responsibility to see that complete information has been provided to the director of admission.
Considerations for Admission

The applicant must have graduated from a high school accredited by a regional accrediting agency or by a state department of education or by the equivalent, and have a total record indicating a likelihood of success at the University of Dayton. The General Education Development (GED) certificate is also recognized for consideration by the admission committee.

The quality of the academic record is shown by the applicant's grades, standing in class, and selection of courses. Although no set pattern of courses is required for admission, a well-prepared candidate will have had from 15 to 18 units in English, social sciences, mathematics, foreign language and laboratory science. Those who plan to major in one of the natural sciences, mathematics, computer science, business administration or engineering will find a strong mathematics background helpful.

Additional indicators of academic aptitude are scores received on the SAT Reasoning, the ACT, and, when applicable, the Test of English as a Foreign Language (TOEFL).

The admission committee is interested in the applicant's personal traits and record as a school citizen. The recommendation of the high school guidance counselor concerning ability, motivation and character is reviewed by the admission committee.

Each applicant is encouraged to visit the campus for an interview with an admission counselor. A visit also will provide an opportunity to see the campus and ask questions of the students and faculty.

Entrance Unit Recommendations

<table>
<thead>
<tr>
<th>College Major</th>
<th>English</th>
<th>Foreign Language</th>
<th>Algebra I</th>
<th>Geometry</th>
<th>Algebra II, Trigonometry</th>
<th>Mathematics IV</th>
<th>Biology</th>
<th>Chemistry</th>
<th>Physics</th>
<th>Laboratory Science</th>
<th>Science/Fitness &amp; Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business (all majors)</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (all majors)</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Technology (all majors)</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Education</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dietetics</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise Science &amp; Fitness Management</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Exercise Science/Fitness &amp; Nutrition</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The numbers represent academic units (years) of recommended high school preparation.
<table>
<thead>
<tr>
<th>Exercise Science &amp; Pre-Physical Therapy</th>
<th>4 2 1 1 1 1 1 1 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education, Sport Management</td>
<td>4 2 1 1 1 1 1 6</td>
</tr>
<tr>
<td>American Studies, Art History,</td>
<td>4 2 1 1 1 1 6</td>
</tr>
<tr>
<td>Communication, Criminal</td>
<td></td>
</tr>
<tr>
<td>Justice Studies, Economics, English</td>
<td></td>
</tr>
<tr>
<td>Fine Arts, History, International</td>
<td></td>
</tr>
<tr>
<td>Studies, Languages, Music, Music</td>
<td></td>
</tr>
<tr>
<td>Therapy, Philosophy, Photography</td>
<td></td>
</tr>
<tr>
<td>Political Science, Psychology,</td>
<td></td>
</tr>
<tr>
<td>Religious Studies, Sociology, Theatre,</td>
<td></td>
</tr>
<tr>
<td>Visual Communication Design, Undeclared</td>
<td></td>
</tr>
<tr>
<td>Biochemistry, Biology, Chemistry,</td>
<td>4 2 1 1 1 1 1 1 3</td>
</tr>
<tr>
<td>Environmental Biology, Premedicine/Pre</td>
<td></td>
</tr>
<tr>
<td>dentistry</td>
<td></td>
</tr>
<tr>
<td>Applied Mathematical Economics,</td>
<td>4 2 1 1 1 1 1 4</td>
</tr>
<tr>
<td>Computer Science, Mathematics,</td>
<td></td>
</tr>
<tr>
<td>Physical Science, Physics, Physics-</td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td></td>
</tr>
<tr>
<td>Computer Information Systems</td>
<td>4 2 1 1 1 1 1 4</td>
</tr>
<tr>
<td>Geology, Environmental Geology</td>
<td>4 2 1 1 1 1 5</td>
</tr>
</tbody>
</table>

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Transfer Students

Students from accredited institutions may be considered for transfer to the University of Dayton provided they are in good standing socially and academically (minimum of a C average-2.0 cumulative grade point average). Possession of the minimum grade point average for consideration does not imply admissibility to the University.

Transfer students will be considered for admission after they have followed the regular admission procedure. All applications for transfer admission must be submitted on forms supplied by the University of Dayton. SAT Reasoning or ACT scores are required only of transfer applicants under 21 years of age. All transfer candidates must submit official transcripts from all institutions previously attended. The Office of Admission will evaluate the transcript(s) to determine the number of transferable credits. In general, all college credits earned with a "C-" or higher from any regionally accredited college or university will transfer and be included on the University of Dayton transcript. No credit will be given for a course in which the student earned below a "C-." The evaluation to determine which courses will be accepted toward the degree will be completed by the dean's office of the appropriate college or school.

A student with transfer credit from a two-year institution will be required to have at least 54 semester hours from a four-year institution for any baccalaureate degree. A transfer student is considered for a degree only if the last 30 semester hours have been taken from the University of Dayton and other requirements for graduation have been met.
Veterans

All departments at the University have been approved by the State Approving Agency for Veterans' Training. The Veterans Affairs Office is located in Albert Emanuel Hall, first floor, and will assist in processing the necessary forms for educational benefits. Any changes in program must be reported in writing. Failure to follow this procedure may result in cancellation of benefits by the V.A. For the conditions for good academic standing, visit Academic Standing in Section V, Academic Regulations. If a veteran on probation fails to acquire the required cumulative grade point average at the end of the veteran's next full-time term, the benefits from the V.A. cease.
International Students

Academic Programs

International students applying for an undergraduate program should submit the online Application for Undergraduate Admission and Scholarship and follow the general admission procedure outlined in the application instructions. The applicant whose native language is not English must demonstrate a score of 523 (paper-based) or 193 (computer-based) on the Test of English as a Foreign Language (TOEFL). A minimum score of 956 on the English Language Proficiency Test (ELPT), a minimum score of three (3) on the Advanced Placement International English Language (APIEL) Examination or a minimum Band 6 score on the International English Language Testing System (IELTS) may be submitted in lieu of the TOEFL.

International students applying for a graduate program should submit the online Application for Graduate Admission and follow the general admission procedure outlined in the application instructions. The applicant whose native language is not English must demonstrate a score of 550 (paper-based) or 213 (computer-based) on the Test of English as a Foreign Language (TOEFL). A minimum Band 6.5 score on the International English Language Testing System (IELTS) may be submitted in lieu of the TOEFL.

Undergraduate and graduate applicants unable to demonstrate the required TOEFL score or the equivalent for their level of study at the time of application may be considered for conditional admission. Such a student will be expected to attend the University of Dayton's Intensive English Program and successfully complete the program or obtain the required TOEFL score of 550 (or the equivalent) before full admission to an academic program will be granted.

For all students applying to an academic program, an official copy of the student's complete academic record of all previously attended secondary schools, colleges or universities must be received. This record must include dates of attendance, all subjects studied, grades earned and marks achieved on examinations. These documents must be accompanied by a certified English translation if the documents are not in English. Documents must be sent directly from the institution to the University.

Intensive English Program

Students wishing to study English as a second language may enroll in the University's Intensive English Program. Students may apply for admission to the Intensive English Program only or they may apply for conditional admission to an academic program at the University of Dayton. If a student seeking conditional admission completes an application to an academic program, a separate application for the Intensive English Program is not required.

Applicants to any of the above University programs requiring a student visa must present a letter of financial support and an original bank statement showing sufficient funds to cover the first year of study.

Other pertinent information may be obtained from the Associate Director of International Recruitment.
Programs for Select At-Risk Students

The University has planned academic support programs, subject to availability, for a limited number of students who are judged to need special support to be successful at the University of Dayton.

The Summer Trial Enrollment Program (STEP) is offered to a limited number of students who are judged to need academic support. Students admitted to STEP are required to complete a summer program of two specially selected courses and academic support sessions and participate throughout the year in a University academic enhancement program.

The University Special Admits Program serves entering first-year students who are capable of academic success but because of deficiencies in their academic background need additional support to realize their full potential. Each year the Office of Admission, in collaboration with each academic division (College of Arts and Sciences, Schools of Business Administration, Education and Allied Professions, and Engineering), sets guidelines for accepting a limited number of first-year undergraduates as Special Admit students. Each academic division has developed support programs to help Special Admit students succeed in college. Depending on the academic division, the Special Admits Program may include careful course placement, special advising, supplemental instruction (SI) in designated courses, study tables, math workshops, and cohort formation. The Office of Admission can provide more specific information about the Special Admits Program in each academic division.
Advanced Standing by Examination

Advanced Placement (AP)

The University participates in the College Board's AP program, which allows students to receive college-level course credit for knowledge achieved through prior experience. AP examinations are given in May, upon completion of college-level material. Students who wish to receive credit and advanced placement through the AP program should have test scores sent to the University of Dayton. Advanced standing with credit in appropriate subject areas is awarded as follows:

- For a score of 5 - one or two terms of advanced standing with credit, depending on subject area
- For a score of 4 - one term of advanced standing with credit
- For a score of 3 - one term of advanced standing with credit is awarded in the following: chemistry, computer science, environmental science, French, German, physics, psychology, Spanish and statistics

Scores below 3 do not entitle the applicant to either credit or advanced standing.

College Level Examination Program (CLEP)

The University of Dayton also participates in the College Level Examination Program (CLEP), sponsored by the College Board. CLEP offers examinations in specific subjects. Since not all subject examinations are acceptable and some subject examinations require a free response section (essay), please contact the University of Dayton for information.
High School Scholars

The University of Dayton participates in the program established by Ohio Senate Bill 140, which allows high school juniors and seniors to enroll in college courses while still enrolled in high school. This program is also known as the Post-secondary Enrollment Options program. It is selective and limited to a specific number of students. Interested students must submit applications for the High School Scholars program. These applications are available in the Office of Admission or in high school guidance offices in the Dayton area.
Financial Information

Please select a subsection using the menu to the right.

Explore General Information:

I. The University of Dayton
II. Student Life and Services
III. Admission
IV. Financial Information
   - General Policy
   - Undergraduate Tuition and Fees August 2006 through July 2007
   - Cancellation and Refunds
   - Residential Services Policy
   - Room and Board, per term, Terms I and II August 2005 through May 2006
   - Dining Services
   - Expenses
   - Payment Options
   - Academic Scholarships for First-Year Students
   - Academic Scholarships for Returning Students
   - Other Scholarship Opportunities
   - Non-Need Based Grant Assistance
   - Financial Aid Policy
     - Grants
     - Loans
     - Employment
     - Additional Opportunities
     - Tuition Reductions
V. Academic Regulations
VI. College of Arts and Sciences
VII. School of Business Administration
VIII. School of Education and Allied Professions
IX. School of Engineering
X. Interdisciplinary, Experimental and Special Areas
XI. Directories
General Policy

The tuition and fee charges of the University are set at the minimum permissible for financially responsible operation, and in general these charges are less than the actual costs incurred. Gifts and grants received through the generosity of industry, friends, and alumni help to bridge the difference between income and costs. The trustees of the University reserve the right to change the regulations concerning the adjustment of tuition and fees at any time the need arises and to make whatever changes in the curricula they may deem advisable.

Tuition, fees, room and board may be paid in full before the term begins or, in the fall and winter terms, in five monthly payments with a 1% per month finance charge assessed on the ending balance. A one-time signed open credit agreement is required unless full payment is made initially. Late registration fees are assessed when scheduling and registration are completed after the start of the term.

All checks should be made payable to the UNIVERSITY OF DAYTON. The student's name and student identification number should be shown on the face of each check to insure proper credit.

An assessment of $25.00 + 1% of the check amount will be made for payment of tuition and fees by a bad check or for any other returned check from any area at the University. This assessment is made each time a check is dishonored.

Registration for a new term, transcripts of credit, and honors of graduation may be permitted only for students whose financial University records are clear.
Undergraduate Tuition and Fees August 2006 through July 2007

Fees Payable One Time

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application fee (online registration required)</td>
<td>Free</td>
</tr>
<tr>
<td>Application Fee, international or graduate students (online free)</td>
<td>$30.00</td>
</tr>
<tr>
<td>Counseling Center fee, payable once, at entrance</td>
<td>$100.00</td>
</tr>
<tr>
<td>Orientation fee, payable once, first-year resident students only</td>
<td>$115.00</td>
</tr>
<tr>
<td>Orientation fee, payable once, first-year commuter students only</td>
<td>$105.00</td>
</tr>
<tr>
<td>Miscellaneous deposit (refundable after graduation or dropout)</td>
<td>$50.00</td>
</tr>
</tbody>
</table>

Tuition Charges in Terms I and II

<table>
<thead>
<tr>
<th>Charge</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time undergraduate student (12-17 semester hours), per term</td>
<td>$11,500.00</td>
</tr>
<tr>
<td>Each semester hour over limitations stated above. (The eighteenth hour will not be charged to students with 45 hours or more of completed (graded) course work prior to the first day of the upcoming registration period.)</td>
<td>$767.00</td>
</tr>
<tr>
<td>3/4-time undergraduate student (8-11 semester hours), per term</td>
<td>$8,625.00</td>
</tr>
<tr>
<td>Part-time undergraduate student (1-7 semester hours), per semester hour</td>
<td>$767.00</td>
</tr>
<tr>
<td>Audit course, per undergraduate semester hour</td>
<td>$384.00</td>
</tr>
</tbody>
</table>

Basic University Fee, Terms I and II

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time and 3/4-time student (8 or more semester hours), per term</td>
<td>$485.00</td>
</tr>
<tr>
<td>Part-time student (1-7 semester hours), per term</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

Laboratory Fees, Terms I and II

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory fee, per laboratory clock hour as listed in composite (not to exceed $250.00 per term; not applicable to engineering and engineering technology students)</td>
<td>$50.00</td>
</tr>
<tr>
<td>Engineering surcharge fee (incorporating laboratory charges) full-time and 3/4-time engineering and engineering technology students, each term</td>
<td>$750.00</td>
</tr>
</tbody>
</table>

Course Fees, Terms I and II

<table>
<thead>
<tr>
<th>Course Fees</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special fees for certain courses in art, design, and photography</td>
<td>$20.00-75.00</td>
</tr>
<tr>
<td>Physical Education (scuba diving, skiing, etc.)</td>
<td>variable</td>
</tr>
<tr>
<td>*Music fees</td>
<td>$50.00-225.00</td>
</tr>
<tr>
<td>*Certain courses in theatre</td>
<td>$5.00-35.00</td>
</tr>
<tr>
<td>Student teacher fees: Yearly special fee</td>
<td>$125.00</td>
</tr>
</tbody>
</table>
Tuition and Fees, Term III

Tuition per semester hour $767.00
Basic University fee $25.00
Laboratory and course fees: Same as in Terms I and II but no surcharge for engineering; laboratory fees will be charged per clock hour.

Other Charges

Late registration service charge:
Full-time and 3/4-time students - 25.00 per week to a maximum of $75.00
Part-time and summer students - 15.00 per week to a maximum of $45.00
Credit by examination, per semester hour $30.00
CLEP per credit hour $30.00
Graduation fee, undergraduate students $75.00
Books and supplies variable
Semester of Service $65.00
Transcript of credits, first copy of order by mail or in person $2.00
Each additional copy of same order by mail or in person $1.00

Transcript of credits, by Internet - per copy (add $2.25 processing fee) $2.00

Co-op student fee, per work term $65.00

Finance charge - 1% monthly on ending balance if total amount due is not paid by the end of the month following the month of initial charge.

Full-time and 3/4-time Students

A student with an academic schedule of at least 12 semester hours is considered a full-time student. A student with an academic schedule of 8-11 semester hours is considered a 3/4-time student. With this status and upon payment of the tuition and applicable fees, the student is entitled to the benefits of the various activities and student services as available.

Part-time Students

A student with an academic schedule of fewer than 8 semester hours is considered a part-time student.

Special Students

Special students and nonmatriculated students (continuing education) are subject to the various expenses outlined above for full-time, 3/4-time, or part-time students.
Cancellation and Refunds

If registration is cancelled before the first day of classes, full tuition refunds will be made with the exception of the admission deposit. Housing refunds will be made in accordance with the terms of the "Student Housing Contract".

Cancellation must be in writing on the proper form, the withdrawal or "drop" form for registration. For non-local students a letter to the appropriate dean may be used as notification of cancellation. Students who do not attend classes and do not officially complete withdrawal procedures during the cancellation period will be responsible for the full amount of the applicable tuition and fees.

Receipt of written documentation noting a student's withdrawal from UD is required to Residential Services before June 1 to avoid cancellation charges. Detailed housing cancellation information can be found at the Residential Services website at housing.udayton.edu.

During the four-week cancellation period for the first and second terms, tuition and housing credits will be given according to the following schedule:

- During first week of classes 80%
- During second week of classes 60%
- During third week of classes 40%
- During fourth week of classes 25%
- During or after fifth week of classes 0%

*(The 1st week starts on the first day of a term; the 2nd week begins 7 days later, etc.)*

Special course fees are fully refundable through the Friday of the first full calendar week of the term and not refundable thereafter.

Laboratory fees are fully refundable through the Friday of the first full calendar week of the term and refundable on the same schedule as tuition thereafter.

During the two-week cancellation period for each six-week session of the split third term, tuition and housing credits will be given according to the following schedule:

- During first week of classes 65%
- During second week of classes 30%
- During or after third week of classes 0%

Cancellations for a full third term course have a four-week cancellation period and will be on the same schedule as cancellations for the first and second terms.

Financial adjustments for tuition are based on the date the drop (withdrawal) form is finalized in registration.

Financial adjustments for housing (please refer to your housing contract) are based on the date of checkout from housing, if applicable.

In a summer term, special course fees are fully refundable through the first three days of the term and not refundable thereafter.

In a summer term, laboratory fees are fully refundable through the first three days of the term and refundable on the same schedule as tuition thereafter.

Special rules may apply for students who withdraw and who received Title IV
funds. Please contact the Office of Financial Aid if additional information is needed.

After classes have begun, the University fee for student activities is not refundable. All tuition refund requests and appeals must be in writing and directed to the attention of David J. Necessary-Director of Student Accounts/Bursar.

Students suspended/dismissed from the University or from University residence facilities as a result of disciplinary action are not eligible for any refund of tuition and fees or room and board charges under the University's Cancellation and Refund policy. Exceptions to this position will be made to comply with refund requirements of federal financial aid programs.
Residential Services Policy

Each unmarried first-year and second-year student under 21 years of age, not living at home in the Dayton area with his/her parents or legal guardian, is required to live in University housing.

Each student applying for a University residence facility must complete an online residential living contract with the Office of Residential Services. The contract covers both the fall and winter terms of the academic year. Once a contract is signed, it may not be cancelled without incurring substantial cost as long as the student is enrolled at the University. The online residential contract is located on our website at: http://housing.udayton.edu

Those students dropping all courses and checking out of housing during the first four weeks of school will be authorized refunds as stated under "Cancellations and Cancellation Fee."

All students living in housing facilities are required to observe all University regulations and specific regulations of each facility. Residents will be held responsible for any damages to the residential structure that are due to their own negligence, and will be billed for those damages at the time of discovery. Students will share responsibility with other residents of the structure for unidentified common area damages. Common area damage charges will be billed monthly when applicable. The same conditions shall also hold for any loss or damage to the University grounds, fixtures, furnishings, or other property provided by the University for use by the students.

Students may reside in their rooms, suites, apartments, or houses without additional charge during Thanksgiving and Easter vacations. All University residences are closed during Christmas vacation period and during the Spring-term break.
### Room and Board, per term, Terms I and II August 2005 through May 2006

<table>
<thead>
<tr>
<th>Residence Halls</th>
<th>Single</th>
<th>Double</th>
<th>Triple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marycrest Complex</td>
<td>$2,620.00</td>
<td>$2,000.00</td>
<td>$1,640.00</td>
</tr>
<tr>
<td>Stuart Hall</td>
<td>NA</td>
<td>2,000.00</td>
<td>NA</td>
</tr>
<tr>
<td>Founders Hall</td>
<td>2,620.00</td>
<td>2,000.00</td>
<td>1,640.00</td>
</tr>
<tr>
<td>Marianist Hall</td>
<td>NA</td>
<td>2,230.00</td>
<td>Quad: 2,600.00</td>
</tr>
</tbody>
</table>

#### Apartments, Suites, Undergrad Houses

- **Campus South Apartments**
  - $2,320.00 per occupant
- **Lawnview Apartments**
  - $2,570.00 per occupant
- **Garden Apartments (2 students per apartment)**
  - $3,380.00 per occupant
- **Garden Apartments (4 or 6 students per apartment)**
  - $2,320.00 per occupant
- **Virginia W. Kettering Residence Hall**
  - $2,290.00 per occupant
- **House**
  - $2,350.00 per occupant
- **Single Bedroom House**
  - $2,890.00 per occupant
- **New House**
  - $2,630.00 per occupant
- **Renovated House**
  - $2,520.00 per occupant

#### ArtStreet

- **Loft (4 students)**
  - $2,640.00 per occupant
- **Townhouse (6 students)**
  - $2,740.00 per occupant
Dining Services

All students living in residence halls must have one of the following:

- Any 12 MEAL PLAN (12 meals per week) - $1,445.00
- Any 15 MEAL PLAN (15 meals per week) - $1,545.00
- All 21 MEAL PLAN (3 meals per day, 7 days) - $1,655.00
- The Flex Plan (debit account) - $1,500.00
- The Mega Flex Plan (debit account) - $1,685.00

When a student does not choose a meal plan the default plan is the Flex Plan.

Non-resident students may purchase a Neighborhood meal plan (debit account).
Expenses

The University of Dayton operates on a "split third-term calendar." Tuition and fees for full-time students during the 2006-07 academic year (fall and winter terms) will total about $23,970.00 (includes the Basic University Fee) plus laboratory and/or special course fees where applicable. Room and board on campus for this period would be approximately $7390.00, based on double room occupancy, any 12 meals a week plan, and a Flyer Express account for weekends. Books and supplies will cost approximately $400.00 each term. In addition, the student will need funds to satisfy personal expenses and extra meals on the weekends.

Expenses for commuting students will include tuition, fees, supplies, and miscellaneous living costs. Transportation to and from the University as well as lunches should be considered in the budget.
Payment Options

For those who prefer to budget annual school costs out of monthly income, the following options are available:

Credit Cards - Payment for any University charges may be made by MasterCard, Visa, American Express, and/or Discover within the credit limits for those cards.

Deferred Payment Plan - The University offers an open credit arrangement with installment provisions. All students are eligible for this plan. Students complete a one-time Credit Account Agreement form which is automatically sent prior to the first term of enrollment. Features of the plan include:

- Five monthly payments per semester
- Payments begin July 25 for fall term and December 27 for winter term
- Low interest charge of 1% per month on the ending balance
- No application fee and no credit review

Undergraduate Prepayment Plan - The University of Dayton's monthly prepayment plan, which is serviced through Key Education Resources, is a convenient alternative to lump sum semester payments. Any parent, guardian or student is eligible for this plan. Application materials may be obtained by calling 1-800-KEY-LEND (539-5363). Features of the plan include:

- Ten monthly level payments (which can be revised at anytime)
- Payments begin June 1st (you may also enroll after this date)
- No interest charges and no credit review
- Low cost - $40 application fee
- Direct Debit Option available
- College Completion Protection insurance option
Academic Scholarships for First-Year Students

President's Scholarships and Marianist Heritage Scholarships have been established to recognize excellent high school achievement by incoming first-year students. Graduates from Marianist high schools, in the US and Puerto Rico are awarded the Marianist Heritage Scholarship. Applicants receive consideration for these scholarships on the basis of the following:

- high school academic performance
- SAT or ACT scores
- demonstrated service to school, community and church
- proven leadership ability
- citizenship

Awards range from $1,000 to full tuition and each scholarship is renewable for eight undergraduate terms. To remain eligible for these scholarships, recipients must maintain the required 3.0 cumulative grade point average, be enrolled full time (minimum of 12 credit hours) and participate in University-sponsored extracurricular activities.

Application Procedure

1. Apply for admission to the University of Dayton by January 1st of your senior year in high school. Apply online at the University homepage.
2. Take the Scholastic Aptitude Test (SAT) and/or the American College Test (ACT) no later than December. Indicate that your scores are to be sent to the University of Dayton.

Berry Scholarships

Berry Scholarships are offered on a competitive basis to those selected into the prestigious, nationally recognized Berry Scholars Program. Contact the director of the program, Steven Dandaneau, at 937-229-4615 for additional information.
Academic Scholarships for Returning Students

Students in full-time attendance who have completed at least 12 semester hours on campus at the University of Dayton are eligible to apply for Upper-class Scholarships. Recipients are selected on the basis of academic accomplishments, leadership, demonstrated service to the University, and the strength of the recommendations of faculty and staff members. These scholarships are gifts to the University of Dayton, from alumni, families, corporations and foundations. The scholarships are awarded for a period of one academic year and generally range from $500 to $2,000.

Application Procedure

Upper-class scholarship applications are available online at http://www.finaid.udayton.edu/go/scholarships from January 15 through March 15 each year.
Other Scholarship Opportunities

Athletic Scholarships

Intercollegiate athletic scholarships are awarded each year to entering students. Contact the Department of Intercollegiate Athletics at 937-229-2100 for additional information.

Music Scholarships

Music scholarships are awarded on a competitive basis following auditions with the music faculty. Contact the Department of Music at 937-229-3936 for additional information.

Visual Arts Scholarships

Visual Arts Scholarships are awarded on a competitive basis. Entering students must submit a portfolio for consideration. A number of four-year scholarships are awarded to students who demonstrate outstanding promise in the visual arts and who plan to pursue a degree in this field. Contact the Department of Visual Arts at 937-229-3237 for additional information.

Additional Scholarships Administered by the University of Dayton

The University is authorized to select students as nominees for scholarships offered by certain corporations, business firms, service groups and friends of the University.
Non-Need Based Grant Assistance

The Ohio Student Choice Grant is given to Ohio residents who attend private colleges in Ohio. This grant, which is awarded through the Ohio Board of Regents, is available for up to ten semesters of full-time, undergraduate enrollment at the University of Dayton. Students must complete an Ohio Residency Form, which is available in the Office of Scholarships and Financial Aid. This form must be completed within thirty days after the first semester of enrollment to confirm eligibility. The Ohio Residency Form must be completed only once; renewal for the remaining semesters is automatic for full-time students.
The University of Dayton realizes that most students need assistance financing their college education. Financial aid is available in the form of nonrepayable grants, student loans, and part-time employment. Parent loans and monthly payment plans are also available.

To assure an equitable distribution of financial aid resources, students applying for assistance must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is used to determine the family's ability to pay for the student's education. The family's ability to pay, or expected family contribution (EFC), is calculated after careful review of income, assets, and other family information.

Eligibility for need-based federal, state, and university-sponsored aid is determined by comparing the total cost of attending UD with a family's ability to cover college expenses. Financial aid is considered supplemental to the student's and family's efforts to meet the cost of attendance.

The FAFSA should be submitted via the Internet at http://www.fafsa.ed.gov for quicker processing time. We recommend that students submit the FAFSA to the federal processor by March 15 to ensure that the University of Dayton receives the results by the priority deadline date of May 1. Students must reapply for financial aid each year and list UD's federal code (003127) on each application. In order to sign the FAFSA online, a dependent student and at least one of his or her parents must possess a federal PIN number. To apply for a PIN the appropriate parties should visit http://www.pin.ed.gov. Students are encouraged to call our office or meet with a financial aid counselor if they have questions regarding financial aid.
Grants

Federal Pell Grant

The Pell Grant Program makes funds available to eligible undergraduate students who demonstrate high financial need. Apply by completing the Free Application for Federal Student Aid (FAFSA).

Federal Supplemental Educational Opportunity Grants

These federally supported, university-administered grants are provided to undergraduate students who have high financial need.

Ohio Instructional Grant

This grant is intended to encourage Ohio residents to attend institutions of higher education within the state of Ohio. Residents with annual family incomes less than $39,000 may be eligible to receive this type of grant from the state of Ohio for up to ten semesters of undergraduate enrollment at the University of Dayton. Each recipient of the Ohio Instructional Grant must (1) be a resident of Ohio, (2) be enrolled or accepted for enrollment as an undergraduate student in an Ohio institution of higher education prior to the 2006-2007 academic year, (3) be making "appropriate progress" toward a bachelor's degree, and (4) meet the financial guidelines established by the Ohio Student Aid Commission. Students enrolled in courses of study leading to degrees in theology, religion, or other fields of preparation for a religious profession are not eligible. An application packet may be obtained from the high school counselor or the Office of Scholarships and Financial Aid at the University of Dayton. To apply, complete the Free Application for Federal Student Aid (FAFSA).

Ohio College Opportunity Grant

The Ohio College Opportunity Grant (OCOG) is a new program for first-time college students beginning with the 2006-2007 award year. Recipients must be Ohio residents. OCOG grants can be awarded to either full-time or part-time eligible students. The OCOG grant will be awarded to students with an Expected Family Contribution (EFC) of between 0 and 2190 (as long as the total family income is not greater than $75,000). Award amounts vary by sector (private, public or career institutions). Benefits are restricted to the student's instructional and general fee charges. Students apply for the Ohio College Opportunity Grant by filing the Free Application for Federal Student Aid (FAFSA). Any student enrolled prior to the 2006-2007 award year will have eligibility determined for the Ohio Instructional Grant (OIC).

University Founder's Grant

The University of Dayton offers nonrepayable grants to undergraduate students with demonstrated financial need. The University assumes that the student will accept self-help in the form of loans and school-year employment. The Founder's Grant is intended to cover a portion of the financial need. The Free Application for Federal Student Aid (FAFSA) is required annually for consideration.
Loans

Federal Perkins Loans

The Federal Perkins Loan is a federally-funded student loan, but individual schools determine eligibility requirements. Priority is given to dependent undergraduate students who demonstrate high financial need (as determined by the Free Application for Federal Student Aid). Repayment begins nine months after the student graduates, leaves school, or drops below half-time enrollment status. This loan carries a fixed interest rate of 5.00%, but interest will not accrue until the repayment cycle begins. Repayment can be spread over a ten-year period.

Federal Stafford Loans

Federal Stafford Loans (formerly Guaranteed Student Loans) are made available to all students who file the Free Application for Federal Student Aid (FAFSA). The maximum loan is $2,625 per year for the first year, $3,500 for the second year, and $5,500 per year for the junior and senior years. Repayment begins six months after the student graduates, leaves school, or drops below half-time enrollment status. As of July 1, 2006, the loan will carry a fixed interest rate of 6.8%. Repayment can be spread over a ten-year period.

Federal Parent Loan for Undergraduate Students

The Federal Parent Loan for Undergraduate Students (PLUS) provides a source of financing to all students regardless of the family income. All credit-worthy parents of undergraduate students may borrow up to the cost of education minus financial aid per academic year for each student attending an accredited college. Repayment begins within sixty days after the loan is fully disbursed. During the repayment period a fixed interest rate of 8.5% is charged. Repayment can be spread over a ten-year period.

GATE Student Loan

The University of Dayton, in cooperation with The First Marblehead Corporation and Bank of America, makes these funds available to eligible undergraduate students. The Office of Scholarships and Financial Aid determines eligibility after review of the Free Application for Federal Student Aid (FAFSA).

Students are subject to a credit test that does not require an established credit history and in most cases a co-signer is not required. Repayment begins six months after the student graduates, leaves school, or drops below half-time enrollment status. The amount of each payment depends on the size of your debt. The loan carries a twenty-year level repayment schedule. The interest rate is variable and adjusted quarterly based on the one month LIBOR rate +2.75. Interest begins to accrue after the first disbursement is made but can be deferred until repayment begins.

Private Alternative Educational Loans

Private Alternative Educational Loans are also available to help meet college expenses. The University of Dayton works closely with Key Bank and their private loan program. Key Bank's program offers competitive interest rates, flexible repayment schedules, and various co-signer requirements. If you are interested in a private alternative educational loan, please contact the Office of Scholarships and Financial Aid or Key Bank at 800-539-5363.
Employment

The Federal Work-Study Program (Federally supported) provides work opportunities for full-time students who demonstrate financial need. While most work opportunities are on campus, employment is also available in local agencies and area elementary schools through the Federal Work Study Community Service Program.

University-Funded Employment (University supported) opportunities for students who do not qualify for the Federal Work-Study Program are also available.

Federal Work-Study and University-Funded student workers may work up to 20 hours per week during the school term and will receive payroll checks semi-monthly for their services. Students interested in pursuing opportunities in either of these programs should visit the Office of Student Employment, Room 148 of Albert Emanuel Hall.
Additional Opportunities

Veteran Benefits
- Students who enlisted in the military as Active Duty or as Selected Reserve Status may qualify for the Montgomery G.I. Bill benefits.
- Students of a parent who is/was a military veteran may qualify for Educational Assistance Benefits.
- Contact the nearest Veteran Affairs Regional Office for additional information.

Vocational Rehabilitation
State vocational rehabilitation agencies arrange the training of handicapped persons for gainful employment. Requests for information on rehabilitation services should be directed to the State Director, Vocational Rehabilitation Agency, the State Capitol.

U.S. Army Reserve Officers Training Corps (ROTC)
Army ROTC has a number of scholarships available, affording students the opportunity to defray a majority of the costs of attending a prestigious school such as the University of Dayton. High school students compete for three- and four-year scholarships. These scholarships can be valued between $105,000 to $135,000 with University incentives. Two- and three-year scholarships are available once a student is enrolled at the University. These scholarships will pay tuition and University fee expenses up to $20,000, as well as a flat rate of $450 per semester for textbooks. In addition, students receive an allowance of $3,000 to $5,000 each school year the scholarship is in effect.

U.S. Air Force Reserve Officers Training Corps (AFROTC)
The Air Force Reserve Officers Training Corps (AFROTC) program is offered in cooperation with Wright State University by the Department of Aerospace Studies. All students who complete the General Military Course (freshman and sophomore years) may have the opportunity to enroll in the advanced Professional Military Course (junior and senior years), leading to a commission in the United States Air Force upon graduation. There are opportunities throughout the program to compete for scholarships and stipend money. Refer to the Air Force Reserve Officers Training Corps (AFROTC), Chapter X.

Ohio National Guard Scholarship
- NOT based on financial need
- Available to Ohio residents enlisted in the Ohio National Guard
- Apply by contacting your local National Guard recruiter or call 1-614-889-7032

Ohio Safety Officers Memorial Fund
- NOT based on financial need
- Available to children of Ohio Peace Officers or Ohio Firefighters killed in the line of duty
- Apply by contacting UD's Office of Scholarships and Financial Aid

Ohio War Orphans Scholarship
- Available to children of deceased/disabled Ohio war veterans
- Apply by contacting the Ohio Board or Regents
• Deadline July 1
Tuition Reductions

Tuition Remission for University of Dayton Full-time employees

Full-time benefit-eligible employees, spouses, and children, when admitted in accordance with University of Dayton admission standards, are eligible for tuition remission benefits. Eligible employees receive 100% remission for both graduate and undergraduate classes for themselves. Spouses and children are eligible for undergraduate remission only based on years of benefit-eligible service. Please refer to the appropriate University of Dayton Benefit Handbook for the schedule of dependent tuition remission.

Senior Fellows

Students 60 years of age and over are eligible to apply through the College of Arts & Sciences at the University of Dayton for remission of tuition.
Academic Regulations

Please select a subsection using the menu to the right.
General Requirements

All bachelor's degrees granted by the University of Dayton require a minimum of 120 semester hours of credit with a cumulative grade point average of at least 2.0.

Specific requirements for the various degrees are listed under the schools granting the degrees. For more information, visit the General Information sections on the four divisions.

One year (thirty semester hours) of residence is a minimum requirement for any bachelor's degree. The semester hour is the unit by which the University measures its course work, and the number of semester hours is determined by the number of hours a week in class and the number of weeks in the session. One semester hour is assigned to a class which meets fifty minutes a week over the period of one term.

Students enrolled in the University as candidates for degrees should not take courses at other colleges or universities without first obtaining written permission from their respective deans. If the permission is granted, the dean will request "transient status" for such students at designated institutions. The University reserves the right not to accept credits for such courses when this procedure has not been followed.

The Bachelor of Science in Education may be awarded to holders of nonprofessional degrees from the University of Dayton with the completion of a minimum of thirty semester hours prescribed by the School of Education and Allied Professions beyond the requirements of the nonprofessional degree. The Bachelor of Arts or Bachelor of Science may be awarded to holders of professional degrees from the University of Dayton upon the completion of the requirements for such degrees. Any student wishing to obtain a second bachelor's degree may do so by completing the requirements for the second degree as determined by the faculty of the college or school in which this degree is offered.

Ordinarily a student who earned a first bachelor's degree or an associate degree at another institution must complete six semester hours of philosophy and/or religious studies at the University of Dayton. Such a student may be required to complete the prescribed twelve semester hours of philosophy and/or religious studies, if in the judgment of the dean, equivalent coursework had not been earned as a part of the program leading to the first degree.

All students following four-year programs are required to complete successfully the University requirements in General Education and in the Competency Program.
Competency Program

The Competency Program commits all academic programs at the University of Dayton to the common purpose of developing distinctive graduates who possess the critical communication, reasoning, and information competencies they need to function effectively in their academic, community, and professional lives. The four competency areas are part of both general and graduation competencies. General competencies form a base for effective written and oral expression, critical and quantitative reasoning, and processing and presenting print and electronic information. The general competencies are required for graduation in all four-year programs and are strongly emphasized in first-year courses and continue to be developed through a student's work in General Education, initial courses in the major, and lower-level electives. Academic departments and programs define the graduation competencies. Graduation competencies emphasize further development and maturation of the competency areas through courses in the major discipline and upper-level electives.

Reading and Writing General Competencies

The University's general reading and writing competency requirements are satisfied by completing ENG 101 and ENG 102, ENG 114, or ENG 198 with a grade of C- or higher. Students admitted to the University Honors program and students with sufficiently high verbal scores on the SAT and ACT are placed in ENG 114; Berry Scholars are placed in ENG 198. ENG 114 and ENG 198 are one-semester courses which satisfy the University requirement. Students who are placed in ENG 114 or ENG 198 do not receive credit for ENG 101 but are free to take elective course work in place of the waived first semester of composition.

All incoming first-year students are placed in ENG 101 unless:
- they are designated as Honors - placed in ENG 114
- they are in the Berry Scholars Program - placed in ENG 198
- they are placed in ENG 114 (receive EM credit for ENG 101). For a score of 5 they receive EM credit for ENG 101 and 102.
- they have an SAT (VB) score of 750 or above, or ACT (EN) of 35 or above - exempt from taking English composition

Oral Communication General Competencies

The University's general oral communication competency requirements are satisfied by completing CMM 110, CMM 111 or CMM 112, and CMM 113 for a total of three semester hours. Each of these one-hour communication modules must be completed with a C- or higher in order to satisfy the general competency requirement. No waiver exams are available for these modules. Students in the Berry's Scholars Program are exempted from this requirement.

Each of the modules covers a specific and limited context of communication - Group Decision Making (CMM 110), Informative Public Speaking (CMM 111), Persuasive Public Speaking (CMM 112), and Interviewing (CMM 113). Each module is focused on a series of communication competencies. The modules are taught in five week sessions or "mini-terms."

Students are encouraged to consult with their academic advisor, school or the College about when to register for each of the modules. Typically students, not majoring in Communication, will take CMM 110 during the first year, CMM 111
OR CMM 112 during the second year, and CMM 113 second semester junior year or during the senior year. Communication majors are required to take all three modules during the first year.

Quantitative Reasoning General Competencies

In order to graduate, students are required to satisfy the Quantitative Reasoning Competencies. There are three modules, and students must satisfy each of the three modules. Students should satisfy each of these three modules by the end of the sophomore year. The modules are not described here; only how they are satisfied.

Module 1: Algebra

To satisfy Module 1, a student must pass an online examination with minimum score of 80%. All first-year students have already taken this online examination as part of the online placement exam in Virtual Orientation. Students then receive an e-mail message through their Lotus Notes accounts in which they are informed if they have passed this exam as part of the online placement exam. If that e-mail is positive, the student has satisfied Module 1. If that e-mail is not positive, the student must retake the exam. For more information, please contact Dr. Paul Eloe, Chairperson of the Department of Mathematics, at Paul.Eloe@notes.udayton.edu.

Module 2: Descriptive Statistics

Students can satisfy Module 2 in one of two ways.

1. Complete one of the following courses with a grade of C- or better or, earn EM credit for MTH 207 based upon AP examinations, or earn appropriate transfer credit. To determine if the transfer credit is appropriate, contact Dr. Paul Eloe, Chairperson of the Department of Mathematics.

   MTH 114  MTH 149  MTH 205
   MTH 207  DSC 210  PSY 216
   POL 207  SOC 308  CEE 320
   CME 281  ECE 340  CHM 201
   MEE 314

2. Pass an online examination with a minimum score of 80%.

Many students will naturally take one of the courses listed above to satisfy a major. Students who major in mathematics, computer science, chemistry or physics, for example, do not naturally take one of those courses listed above. They are expected to pass an examination. For more information, please contact Dr. Paul Eloe, Chairperson of the Department of Mathematics, at Paul.Eloe@notes.udayton.edu.

Module 3: Mathematical Modeling

Students will satisfy Module 3 with successful completion of one of the courses listed below. Students are expected to take the mathematics course that fits their plan of study.

Complete one of the following courses with a grade of C- or better or EM credit based upon AP examinations or transfer credit.
MTH 114  MTH 116  MTH 128
MTH 129  MTH 137  MTH 138
MTH 148  MTH 149  MTH 168
MTH 169  MTH 204  MTH 205
MTH 207  MTH 214

A grade of "D" does not constitute successful completion for the purposes of satisfying Module III. Students in this situation may retake the course, take a different course, or may satisfactorily complete a mathematical modeling project developed and administered by the Department of Mathematics. If you have questions, please contact Dr. Paul Eloe, Chairperson of the Department of Mathematics, at Paul.Eloe@notes.udayton.edu.

Information Literacy General Competencies
The University's general information literacy competencies cover five areas and are integrated into the curriculum. Students develop effective strategies for using information technologies when seeking knowledge; understand the structure, form, and access methods of recorded information; demonstrate the ability to evaluate and analyze the information gathered from a variety of sources; use information and information technology responsibly and ethically; and demonstrate an interest in and ability for life-long learning about information technology. Although responsibility for initial Information Literacy training rests within each academic unit, the Introduction to the University, Humanities Base, and General Education courses provide the opportunity to establish a solid foundation to develop the competencies.

Graduation Competencies
Graduation competencies emphasize further development and maturation of the competency areas through courses in the major discipline and upper-level electives. Each program and department establishes its own graduation reading and writing, oral communication, quantitative reasoning, and information literacy competency requirements. Contact department chairpersons or program directors for information on satisfying these requirements.
First-Year Experience Program

The University First-Year Experience Program includes a course, offered for a minimum of one credit, for all first-year students in the College of Arts and Sciences, the School of Business Administration, the School of Education and Allied Professions, and the School of Engineering. This course is combined with selected programs and services offered by Student Development, Campus Ministry, and academic support programs. First-year students entering in January and transfer students will be offered an alternative program to meet their needs.

The First-Year Experience Program introduces the distinctive nature of the Catholic/Marianist educational experience as a foundation for learning and life; provides an academic foundation that helps students develop as connected learners, acquire general competencies necessary for their success, understand the nature and requirements of chosen and/or potential programs of study, and be aware of a range of opportunities for enriching their academic experience on campus, across the nation, and around the world; prepares students in critical reflection on the moral and ethical dimensions of their lives, challenges students to treat each individual with equality and respect, fosters the recognition of individual rights and responsibilities of each member of the community, and establishes integrity as central to professional and career decisions; promotes the development of self-understanding and skills that enable students to take responsibility for their academic success and lifelong learning; promotes and supports, both in and out of the classroom, the physical, emotional, spiritual, and psychological health of all students; nurtures students’ creativity and varied talents; and leads to enriched lives of learning, leisure, solitude, leadership, and service.

First-Year Experience Course

Every first-year student entering in the fall term must complete the First-Year Experience course offered by his or her academic division. This course will be offered for a minimum of one credit. The First-Year Experience course will not count against the seventeen credits per term limit covered by full-time tuition.

For first-year students entering the University in the winter term and for transfer students, each division will develop a plan to meet the goals of the First-Year Experience while serving the specific needs of these students.

The First-Year Experience courses offered by each division and units within divisions must include common elements as approved by the University. Beyond these common elements the divisions and academic units offering the course will have a great deal of flexibility in how the course is offered and what will be included in the syllabus.
General Education Requirements

Within the context of the University's Catholic and Marianist educational philosophy, the General Education requirements are central to the full intellectual, social, moral, and spiritual development of every student. The purpose of these requirements is to make students aware of the diversity of intellectual thought and theory represented by the sciences, the humanities, and the social sciences. Further, the General Education component of the undergraduate curriculum offers the student an opportunity to integrate and evaluate information from various disciplines and thus enhance the study of a specific profession, field, or major. These requirements are integral to the University's goal of preparing students for a life of leadership and service, of helping students to grow not only in knowledge, skills, and professional competence, but also as morally responsible decision makers who are aware of the needs of the global community.

Complete information on the General Education Program is available on Portfolio at http://portfolio.udayton.edu

Domains of Knowledge

To achieve these goals, the University requires the completion of General Education courses in five domains of knowledge.

Arts Study: The experience of generations confirms that life is enriched immeasurably by experiencing the world through the arts. Every student should develop some understanding of the importance of this experience and must take one course in the arts and/or language as a means of aesthetic and/or cultural expression. Performing or production courses do not fulfill this requirement.

Historical Study: A person with knowledge of history can relate ideas and events to one another within a context understood by the community of educated men and women; therefore, every student at University of Dayton must take two history courses. One of those courses, HST 103 or HST 198, will be taken as part of the Humanities Base.

Philosophy and Religious Studies: As a Catholic and Marianist institution of learning, the University regards religious studies and philosophy as serving a special function. Students should have an opportunity to deepen their knowledge of the religious and philosophical traditions that shape their shared heritage. Study of these areas, especially when conducted through interdisciplinary courses, can also help students integrate their knowledge of the themes and institutions of societies through the ages. Since every student should be encouraged to go beyond the introductory level in either or both of these areas, every student must take four courses in religious studies and philosophy. Introductory courses in both philosophy and religious studies are required as part of the Humanities Base.

Physical and Life Sciences: The physical and life sciences and technology have affected the quality of life in every age, but never more than in the present. The potential of science and technology for both good and evil will undoubtedly increase in the future. It is essential, therefore, that educated citizens understand the methods of science and its application through technology. For these reasons students must take two courses in the physical and life sciences and technological applications.
Social Sciences: Educated members of society need to understand the dynamics through which people relate to each other as individuals, in groups, and as producers and consumers of goods and services. Effective relationships sustain us as members of families, professions, nations, and the global community. Students, therefore, must take at least one course in the social sciences.

Structure of General Education Requirements

To achieve the goals of raising fundamental questions about human existence, encountering these questions in a meaningful context and encouraging significant integration, students must complete the Humanities Base and a thematic cluster as part of their General Education requirements.

Humanities Base

General Education raises a set of questions that challenges students to develop and formulate their own conception of what it means to be human. These questions may be considered in any number of disciplines, but they are essential to the humanities. Consequently, all undergraduates must complete, preferably during their first year, a Humanities Base of one course in each of the following disciplines:

History: HST 103, The West and the World; or HST 198, History Scholars' Seminar
Philosophy: PHL 103, Introduction to Philosophy
Religious Studies: REL 103, Introduction to Religion (choice of Catholic, general, or scripture option) or REL 198, Religious Studies Scholars' Seminar
English: ENG 102, College Composition II or ENG 114, Freshman Writing Seminar or ENG 198, English Scholars' Seminar

Students in the Core Program take ASI 111 and ASI 112 to satisfy the history, religious studies, and philosophy requirements in the Humanities Base, as well as Core-designated sections of English composition. The history portion of ASI 112 completes the second of the two courses for the Historical Study domain of knowledge.

Thematic Clusters

To facilitate an integrated view of the domains of knowledge and to encourage students to understand the broad world around them, all undergraduates must complete one thematic cluster. A thematic cluster is a series of courses from the domains of knowledge, focusing on an issue central to the human condition. To fulfill the thematic cluster requirement, students must complete a minimum of three approved courses in a single cluster, representing three different domains of knowledge. For the purpose of thematic clusters, philosophy and religious studies are considered separate domains of knowledge. Students will receive specific information about thematic clusters from their faculty advisors. Students must have the approval of their advisors before selecting and registering for a thematic cluster. The Guide to the University of Dayton General Education Program describing all approved clusters and their course offerings is distributed to all students at http://portfolio.udayton.edu.

Completing General Education Requirements

At the maximum, students could enroll in as many as seven thematic cluster courses in the appropriate domains of knowledge. These courses, combined with the Humanities Base, would fulfill all General Education requirements. In most cases, however, students will have to complete some domain of knowledge requirements outside of the courses serving a thematic cluster. With their advisors' approval, students may elect to take any designated General Education course within the appropriate domain to help satisfy requirements. Many of the courses listed as approved courses under a domain of knowledge will also serve the same purpose as a course in a thematic cluster. You can view courses that have been approved by the University for General Education credit by visiting Portfolio at: http://portfolio.udayton.edu
Each department determines whether its majors are free to choose from among all the approved nonrestricted courses, or are to choose from among a limited number of approved courses, or are required to take only specific approved courses. The University has approved some courses for certain majors exclusively, and those courses are, therefore, restricted to those majors for General Education credit. Students should consult their advisors to learn which courses are permissible in their own majors.
Courses Approved for General Education

Arts Study

All students must complete one Arts Study course to satisfy General Education Requirements. This course is in addition to the Humanities Base English course (ENG 102, ENG 114, or ENG 198). This requirement may be satisfied by Arts Study courses that are either included in or independent of a thematic cluster. General Education courses that satisfy this requirement are:

ASI 341 TOPICS ARTS STUDY
Restrictions: Specific topics approved for designated cluster. Consult semester class schedule.

ASI 347 PHYSICS AND LITERATURE

ASI 351 CONSTRUCTING CIVILIZATION

ASI 357 VOCATION AND THE ARTS

CLA 203 CLASSICAL MYTHOLOGY

CMM 355 RHETORIC OF SOCIAL MOVEMENTS

ENG 151 INTRODUCTION TO LITERATURE

ENG 198 ENGLISH SCHOLARS’ SEMINAR
Restrictions: Berry Scholars only

ENG 203 MAJOR BRITISH WRITERS

ENG 204 MAJOR AMERICAN WRITERS

ENG 205 MAJOR WORLD WRITERS

ENG 301 SURVEY OF EARLY ENGLISH LITERATURE

ENG 302 SURVEY OF LATER ENGLISH LITERATURE

ENG 305 SURVEY OF AMERICAN LITERATURE

ENG 306 SURVEY OF CONTINENTAL LITERATURE

ENG 320 CONTEMPORARY DRAMA

ENG 322 MASTERPIECES OF WORLD LITERATURE

ENG 323 LITERATURE OF THE CHRISTIAN TRADITION

ENG 333 IMAGES OF WOMEN IN LITERATURE

ENG 334 MODERN MEN--IMAGES

ENG 335 MODERN BLACK LITERATURE

ENG 336 GENDER IN FICTION

ENG 338 IMAGES OF BUSINESS

ENG 340 THE PRISON IN LITERATURE

ENG 342 LITERATURE AND THE ENVIRONMENT

ENG 345 COLONIAL AND POSTCOLONIAL LITERATURE

ENG 348 MODERN IRISH LITERATURE

ENG 350 EUROPEAN LITERATURE OF ANTIQUITY

ENG 353 LITERATURE OF THE RENAISSANCE

ENG 354 LITERATURE OF THE ENLIGHTENMENT

ENG 355 LITERATURE OF THE ROMANTIC AGE

ENG 356 EUROPEAN LITERATURE OF THE NINETEENTH CENTURY
ENG 357  EUROPEAN LITERATURE OF THE EARLY TWENTIETH CENTURY
ENG 358  CONTEMPORARY LITERATURE OF EUROPE
ENG 362  SHAKESPEARE
ENG 363  SHAKESPEARE'S WORLDS
ENG 382  MOZART'S OPERAS
ENG 383  THE TRAGIC DILEMMA
Restrictions: for Core only
ENG 384  CHRISTIANITY AND MODERN POETRY
FRN 352  OLD WORLD MEETS NEW (ENG)
FRN 452  OLD WORLD MEETS NEW (FRN)
GER 351  GERMAN FILM
GER 361  SURVEY OF GERMAN LITERATURE I
GER 362  SURVEY OF GERMAN LITERATURE II
HMS 360  LATIN AMERICA THROUGH LITERATURE
MUS 201  MUSIC IN CONCERT
MUS 203  SIGHTS AND SOUNDS OF MUSIC
MUS 205  MUSIC, INSTRUMENTS, AND TECHNOLOGY
MUS 232  INTEGRATING THE ARTS: MUSIC
MUS 302  MUSIC HISTORY AND LITERATURE I, II
Restrictions: for MUE, MUS only
MUS 303  INTRODUCTION OF MUSICS OF THE WORLD
MUS 304  HISTORY OF AMERICAN MUSIC
MUS 305  AFRICAN-AMERICAN SACRED MUSIC
MUS 306  HISTORY OF AMERICAN JAZZ
MUS 309  OPERA HISTORY AND LITERATURE
MUS 310  MOZART'S OPERAS
MUS 325  BEETHOVEN AND HIS ERA
MUS 327  MUSIC IN FILM
MUS 350  SACRED MUSIC HISTORY
THR 105  INTRODUCTION TO THE THEATRE
VAE 232  INTEGRATING THE ARTS: VISUAL ARTS
V wasm 101  INTRODUCTION TO THE VISUAL ARTS
VAH 201  SURVEY OF ART I
VAH 202  SURVEY OF ART II
VAH 203  SURVEY OF ART III
VAH 483  TWENTIETH-CENTURY ART II
VAR 220  VISUAL RESOURCES

Historical Study

All students must complete two Historical Study courses to satisfy General Education Requirements. The first Historical Study course, (HST 103, HST 198, or ASI 111), forms part of the Humanities Base. The second Historical Study course can be part of a thematic cluster or serve simply to satisfy that Domain of Knowledge requirement of General Education. The restriction on certain Historical Study courses apply both to the majors indicated and the second disciplines. (Education students should see checklists.) General Education courses that may satisfy the requirement for a second course in Historical Study are:

AMS 301  INTERPRETATIONS OF AMERICAN CULTURE
ASI 111  CORE INTEGRATED STUDIES: THE ROOTS AND DEVELOPMENT OF MODERN CULTURES AND VALUES
Restrictions: for Core only--meets HST and REL humanities base requirements
ASI 112 CORE INTEGRATED STUDIES: THE ROOTS AND DEVELOPMENT OF MODERN CULTURES AND VALUES
Restrictions: for Core only--meets HST cluster requirement and PHL Humanities Base requirement

ASI 342 TOPICS HST STUDY
Restrictions: Specific topics approved for designated cluster. Consult semester class schedule.

CMM 350 PROPAGANDA ANALYSIS

CMM 416 DEVELOPMENT OF MASS MEDIA
Restrictions: for CMM only

GER 341 GERMAN CULTURE AND CIVILIZATION

HSS 275 HISTORY OF PHYSICAL EDUCATION AND SPORT
Restrictions: for HSS only

HST 103 THE WEST AND THE WORLD

HST 198 HISTORY SCHOLARS' SEMINAR
Restrictions: Berry Scholars only

HST 251 AMERICAN HISTORY TO 1865

HST 252 AMERICAN HISTORY SINCE 1865

HST 302 HISTORY OF ANCIENT GREECE

HST 303 HISTORY OF THE ROMAN REPUBLIC AND EMPIRE

HST 305 MEDIEVAL EUROPE

HST 307 RENAISSANCE AND REFORMATION

HST 308 SHAKESPEARE'S WORLDS

HST 313 THE DUAL REVOLUTION AND ITS CONSEQUENCES - EUROPE 1815-1914

HST 314 MODERN EUROPE IN DECLINE - 1890-1945

HST 315 EUROPE IN THE POSTWAR ERA--1945 TO THE PRESENT

HST 316 BEETHOVEN AND HIS ERA

HST 322 HISTORY OF ENGLAND

HST 324 COMPARATIVE NATIONALISM

HST 326 RUSSIA, THE SOVIET UNION AND BEYOND, 1860-PRESENT

HST 327 NATIONAL CULTURES OF THE SOVIET UNION AND ITS SUCCESSOR STATES

HST 328 HISTORY OF EASTERN EUROPE

HST 330 HISTORY OF SOUTHEAST ASIA

HST 333 THE MIDDLE EAST, NINETEENTH AND TWENTIETH CENTURIES

HST 334 HISTORY OF THE PALESTINIAN-ISRAEL CONFLICT

HST 335 HISTORY OF SOUTH ASIA

HST 336 HISTORY OF AFRICA TO 19TH CENTURY

HST 337 HISTORY OF AFRICA-19TH CENTURY TO THE PRESENT

HST 338 STATE AND SECESSION IN SOUTH ASIA

HST 340 HISTORY OF SCIENCE

HST 341 HISTORICAL PERSPECTIVES ON SCIENCE, TECHNOLOGY, AND SOCIETY

HST 342 ENVIRONMENTAL HISTORY OF THE AMERICAS

HST 343 HISTORY OF CIVIL ENGINEERING

HST 344 HISTORY OF SCIENCE, TECHNOLOGY, AND THE MODERN CORPORATION

HST 346 HISTORY OF AMERICAN AVIATION

HST 347 SEX, RACE, & SCIENCE

HST 348 LIFE AND TECHNOLOGY

HST 349 TECHNOLOGY AND THE CULTURE OF WAR

HST 351 AMERICAN WOMEN'S AND GENDER HISTORY

HST 352 HISTORY OF THE AMERICAN FAMILY
HST 353  HISTORY OF WOMEN IN EUROPEAN SOCIETIES
HST 354  HISTORY OF WOMEN AND GENDER IN THE MIDDLE EAST
HST 355  AMERICAN URBAN HISTORY
HST 356  COMPARATIVE HISTORY OF WOMEN IN THE THIRD WORLD
HST 357  LATIN AMERICA IN THE TWENTIETH CENTURY
HST 358  SOCIAL AND CULTURAL HISTORY OF LATIN AMERICA
HST 359  HISTORY OF AMERICAN CITY PLANNING
HST 360  U.S. LEGAL AND CONSTITUTIONAL HISTORY I
HST 361  U.S. LEGAL AND CONSTITUTIONAL HISTORY II
HST 370  ECONOMIC AND BUSINESS HISTORY OF THE UNITED STATES
HST 371  UNITED STATES WORKING CLASS
HST 372  HISTORY OF RELIGION IN THE UNITED STATES
HST 374  IRELAND AND AMERICA
HST 375  HISTORY OF U.S. FOREIGN RELATIONS
HST 376  SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES
HST 377  CONTEMPORARY AMERICAN HISTORY
HST 378  HISTORY OF GLOBAL IMMIGRANTS TO THE UNITED STATES
HST 380  NATIVE AMERICAN HISTORY
HST 382  HISTORY OF MEXICO
HST 383  HISTORY OF THE CARIBBEAN
HST 384  ECONOMIC HISTORY OF LATIN AMERICA
HST 385  THE ATLANTIC WORLD, 1492-1800
HST 391  AMERICAN ARCHITECTURAL HISTORY AND PRESERVATION
HST 398  HISTORY OF BLACKS IN THE UNITED STATES, 1526-1900
HST 399  HISTORY OF BLACKS IN THE UNITED STATES SINCE 1900
MST 310  READING THE SIGNS OF THE TIMES
MUS 301  MUSIC HISTORY AND LITERATURE I
  Restrictions: for MUE, MUS only
PSY 471  HISTORY OF PSYCHOLOGY
  Restrictions: for PSY only
THR 415  HISTORY OF THE THEATRE I
  Restrictions: for THR only
THR 425  HISTORY OF THE THEATRE II
  Restrictions: for THR only
VAH 360  ART HISTORY AND FEMINISM
VAH 382  HISTORY OF PHOTOGRAPHY I
  Restrictions: for PHO only
VAH 480  TWENTIETH-CENTURY ART I
  Restrictions: for ART, EAR only

Philosophy

All students complete PHL 103 and REL 103 or REL 198, or ASI 111 and ASI 112, as part of the Humanities Base. Students are required to take an additional two courses in philosophy and/or religious studies to satisfy General Education Requirements. This requirement may be satisfied by philosophy and/or religious studies courses that are either included in or independent of a thematic cluster.

ASI 112  CORE INTEGRATED STUDIES: THE ROOTS AND DEVELOPMENT OF MODERN CULTURES AND VALUES
  Restrictions: for Core only—meets HST cluster requirement and PHL Humanities Base requirement
ASI 323  CITIES AND SUBURBS: THE INFLUENCE OF PLACE
ASI 343  TOPICS PHL STUDY
   Restrictions: Specific topics approved for designated cluster.
               Consult semester class schedule.
ASI 371  PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY SBA
   Restrictions: for Core only
ASI 372  PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY EDU
   Restrictions: for Core only
ASI 373  PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY ENGR
   Restrictions: for Core only
ASI 374  PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY PHL
   Restrictions: for Core only
EDT 301  PHILOSOPHY OF EDUCATION
   Restrictions: for Education and E-11 only Course removed from
general education 12/05/02
EDT 302  CATHOLIC PHILOSOPHY OF EDUCATION
   Restrictions: for Education and E-11 only Course removed from
general education 12/05/02
EDT 305  PHILOSOPHY AND HISTORY OF AMERICAN EDUCATION
   Restrictions: for Education and E-11 students only
MST 311  READING THE SIGNS OF THE TIMES

PHL 103  INTRODUCTION TO PHILOSOPHY
PHL 201  PRACTICAL LOGIC
PHL 302  SYMBOLIC LOGIC
PHL 304  PHILOSOPHY OF HUMAN NATURE
PHL 306  PHILOSOPHY OF KNOWLEDGE
PHL 307  PHILOSOPHY AND WOMEN
PHL 308  METAPHYSICS
PHL 309  PHILOSOPHY OF MIND
PHL 310  SOCIAL PHILOSOPHY
PHL 311  PHILOSOPHY OF RELIGION
PHL 312  ETHICS
PHL 313  BUSINESS ETHICS
PHL 314  PHILOSOPHY OF LAW
PHL 315  MEDICAL ETHICS
PHL 316  ENGINEERING ETHICS
PHL 317  ETHICS AND MODERN WAR
PHL 318  FAMILY ETHICS
PHL 319  INFORMATION ETHICS
PHL 320  PHILOSOPHY OF ART
PHL 321  ENVIRONMENTAL ETHICS
PHL 323  PHILOSOPHY AND LITERATURE
PHL 324  PHILOSOPHY AND FILM
PHL 325  PHILOSOPHY OF MUSIC
PHL 327  PHILOSOPHY OF PEACE
PHL 330  PHILOSOPHY OF SCIENCE
PHL 331  SCIENCE, OBJECTIVITY, AND VALUES
PHL 332  TECHNOLOGY AND VALUES
PHL 333  PHILOSOPHY AND COGNITIVE SCIENCE
PHL 345  PHILOSOPHY SCHOLARS' SEMINAR
   Restrictions: Berry Scholars only
PHL 350  CLASSICAL GREEK PHILOSOPHY
PHL 351  MEDIEVAL PHILOSOPHY
PHL 352  MODERN PHILOSOPHY
PHL 353  KANT AND NINETEENTH-CENTURY PHILOSOPHY
PHL 354 TWENTIETH-CENTURY PHILOSOPHY
PHL 355 EASTERN PHILOSOPHY
PHL 356 CHRISTIAN PHILOSOPHY
PHL 357 RADICAL PHILOSOPHY
PHL 358 MARXIST PHILOSOPHY
PHL 360 EXISTENTIALISM
PHL 361 AMERICAN PHILOSOPHY
PHL 363 AFRICAN PHILOSOPHY
PHL 364 RACE, GENDER, AND PHILOSOPHY
PHL 365 PHILOSOPHY AND CULTURE
PHL 370 POLITICAL PHILOSOPHY
PHL 371 PHILOSOPHY AND HUMAN RIGHTS
PHL 372 VALUES AND ECONOMICS
PHL 373 PHILOSOPHY AND CULTURAL DIVERSITY

Religious Studies

All students complete REL 103 or REL 198 and PHL 103, or ASI 111 and ASI 112, as part of the Humanities Base. Students are required to take an additional two courses in philosophy and/or religious studies to satisfy General Education Requirements. This requirement may be satisfied by philosophy and/or religious studies courses that are either included in or independent of a thematic cluster.

ASI 111
CORE INTEGRATED STUDIES: THE ROOTS AND DEVELOPMENT OF MODERN CULTURES AND VALUES
Restrictions: for Core only--meets HST and REL humanities base requirements

ASI 324
CITIES AND SUBURBS: THE INFLUENCE OF PLACE

ASI 344
TOPICS REL STUDY
Restrictions: Specific topics approved for designated cluster. Consult semester class schedule.

ASI 371
PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY SBA
Restrictions: for Core only

ASI 372
PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY EDU
Restrictions: For Core only

ASI 373
PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY ENGR
Restrictions: for Core only

ASI 375
PROFESSIONAL ETHICS IN A GLOBAL COMMUNITY REL
Restrictions: for Core only

MST 312 READING THE SIGNS OF THE TIMES

REL 103 INTRODUCTION TO RELIGION

REL 198 RELIGIOUS STUDIES SCHOLARS' SEMINAR
Restrictions: Berry Scholars only

REL 300 SELECTED RELIGIONS OF THE EAST

REL 304 HINDUISM

REL 305 EASTERN ORTHODOXY

REL 306 BUDDHISM

REL 307 JUDAISM

REL 308 ISLAM

REL 310 THE PENTATEUCH

REL 311 THE PROPHETS

REL 312 THE PSALMS AND THE WISDOM LITERATURE

REL 315 THE GOSPELS
REL 316 NEW TESTAMENT THEOLOGIES
REL 318 STUDIES IN PAUL
REL 319 THE BOOK OF REVELATION
REL 323 HISTORY OF CHRISTIANITY I (100-1100)
REL 324 HISTORY OF CHRISTIANITY II (1100-PRESENT)
REL 326 PROTESTANT CHRISTIANITY
REL 327 U.S. RELIGIOUS EXPERIENCE
REL 328 U.S. CATHOLIC EXPERIENCE
REL 329 AFRICAN-AMERICAN RELIGION
REL 344 CHRISTIAN MARRIAGE
REL 356 THE CHRISTIAN TRADITION OF PRAYER
REL 358 LIBERATION THEOLOGY
REL 360 CHRISTIAN ETHICS
REL 362 CHRISTIAN FAMILY VALUES AND TELEVISION
REL 363 FAITH AND JUSTICE
REL 365 CHRISTIAN ETHICS AND THE ENVIRONMENT
REL 366 THE HOLOCAUST: THEOLOGICAL AND RELIGIOUS RESPONSES
REL 367 CHRISTIAN ETHICS AND HEALTH CARE ISSUES
REL 368 CHRISTIAN ETHICS AND THE BUSINESS WORLD
REL 369 CHRISTIAN ETHICS AND ENGINEERING
REL 372 RELIGION AND FILM
REL 373 RELIGION AND LITERATURE
REL 374 RELIGION AND THE ARTS
REL 375 RELIGION AND SCIENCE
REL 376 THEOLOGY AND THE SOCIAL SCIENCES
REL 377 THE INNER JOURNEY IN MYTH, BIBLE, AND LITERATURE
REL 383 PHILOSOPHY OF RELIGIOUS EDUCATION
REL 429 MODERN CATHOLICISM
REL 437 SIGNIFICANCE OF JESUS
REL 440 THE CHURCH
REL 441 THEOLOGY OF MARY
REL 442 GOD AND ATHEISM
REL 443 THE SACRAMENTS
REL 444 GOD IN CHRISTIAN TRADITION
REL 446 CHRISTIAN LITURGY
REL 447 SELECTED CATHOLIC DOCTRINES
REL 471 WOMEN AND RELIGION
REL 472 ECOLOGY AND RELIGION
REL 474 WOMEN AND THE GLOBAL CHURCH
REL 488 SPIRITUALITY AND RELIGIOUS EDUCATION

Physical & Life Science

All students must complete two Physical and Life Sciences courses to satisfy General Education Requirements. This requirement may be satisfied by Physical and Life Science courses that are included in or independent of a thematic cluster. Students should consult with their advisors about specific requirements or recommendations related to their majors.

ASI 346 TOPICS SCIENCE STUDY
Restrictions: Specific topics approved for designated cluster. Consult semester class schedule.

BIO 101 GENERAL BIOLOGY I
BIO 102  GENERAL BIOLOGY II  
**Restrictions:** not for BIO, DEN, MED  
BIO 151  CONCEPTS OF BIOLOGY I  
BIO 152  CONCEPTS OF BIOLOGY II  
BIO 340  CULTURE, BIODIVERSITY, AND RESOURCES MANAGEMENT  
BIO 360  ISLAND ENVIRONMENTAL BIOLOGY  
BIO 395  GLOBAL ENVIRONMENTAL BIOLOGY  
CEE 390  ENVIRONMENTAL POLLUTION CONTROL  
**Restrictions:** not for CEE majors  
CHM 115  COLLEGE PREPARATORY CHEMISTRY  
CHM 123  GENERAL CHEMISTRY  
CHM 124  GENERAL CHEMISTRY  
CHM 200  CHEMISTRY AND SOCIETY  
CHM 496  PROFESSIONAL PRACTICES SEMINAR  
**Restrictions:** for CHM only  
EGR 320  SYSTEMS DESIGN SCHOLARS' SEMINAR  
**Restrictions:** Berry Scholars only  
GEO 103  PRINCIPLES OF PHYSICAL GEOGRAPHY  
**Restrictions:** not for BIO, CHM, GEO, PHY, or those who have taken GEO 109 or GEO 115  
GEO 109  GENERAL GEOLOGY  
GEO 115  PHYSICAL GEOLOGY  
GEO 116  GEOLOGICAL HISTORY OF THE EARTH  
GEO 208  ENVIRONMENTAL GEOLOGY  
GEO 218  ENGINEERING GEOLOGY  
HSS 305  HUMAN ANATOMY  
**Restrictions:** for HSS, MUT only  
HSS 306  HUMAN PHYSIOLOGY  
**Restrictions:** for HSS only  
PHY 105  PHYSICAL SCIENCE  
PHY 108  PHYSICAL SCIENCE OF LIGHT AND COLOR  
PHY 201  GENERAL PHYSICS  
PHY 202  GENERAL PHYSICS  
PHY 203  MODERN TECHNICAL PHYSICS  
PHY 206  GENERAL PHYSICS I-MECHANICS  
PHY 207  GENERAL PHYSICS II - ELECTRICITY AND MAGNETISM  
PHY 208  GENERAL PHYSICS III - MECHANICS OF WAVES  
PHY 250  DESCRIPTIVE ASTRONOMY  
SCI 190  THE PHYSICAL UNIVERSE  
**Restrictions:** INSS  
SCI 210  THE DYNAMIC EARTH  
**Restrictions:** INSS  
SCI 220  THE WORLD OF CHEMISTRY  
**Restrictions:** INSS  
SCI 230  ORGANISMS, EVOLUTION & ENVIRONMENT  
**Restrictions:** INSS  
SCI 240  ORGANISMS, EVOLUTION, AND HEALTH  
**Restrictions:** INSS  

**Social Science**

All students must complete one Social Science course to satisfy General Education Requirements. This requirement may be satisfied by Social Science courses that are either included in or independent of a thematic cluster. General Education courses that satisfy this requirement are:
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<tr>
<td>ANT 150</td>
<td>CULTURAL ANTHROPOLOGY</td>
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<td>ANT 300</td>
<td>EVOLUTION OF PEOPLE AND CULTURE</td>
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<td>ANT 360</td>
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<td>ASI 322</td>
<td>CITIES AND SUBURBS: THE INFLUENCE OF PLACE</td>
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<td>CMS 316</td>
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<td>CMS 414</td>
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<td>ECO 204</td>
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<td>ECO 300</td>
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<td>POL 331</td>
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<td>POL 371</td>
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<td>POL 450</td>
<td>CIVIL LIBERTIES</td>
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<td>PSY 101</td>
<td>INTRODUCTORY PSYCHOLOGY</td>
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<td>PSY 334</td>
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<td>PSY 341</td>
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<td>PSY 375</td>
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<td>PSY 443</td>
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<td>PSY 444</td>
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<td>PSY 445</td>
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<td>SOC 204</td>
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<td>SOC 322</td>
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<td>SOC 326</td>
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<td>SOC 341</td>
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<td>SOC 352</td>
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**Restrictions:** Berry Scholars only

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SWK 331</td>
<td>DEATH, DYING, AND SUICIDE</td>
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</table>
Non-Disability Related Course Waiver Policy

Students may make a request to their department or dean to waive certain required courses. In such cases, students may be required to submit proof of prior knowledge in the subject area (diplomas, certificates, portfolios, auditions, transcripts, etc.). At the request of the dean's office or department, students may be asked to complete departmental exams or to submit additional documentation and records of consultation.

Waiving a course does not confer credit. Students replace a required course (the one which has been waived) with another course that carries the same or more number of credit hours and is at an equal or higher course level. Determination of the appropriate course must take place in consultation with the department and dean's office. This policy applies to all waived courses, including those waived by means of placement exams. In addition, this policy does not apply to students with disabilities who require a course substitution due to a disability. Students with disabilities should consult appropriate university policy for course substitution due to disability.

Any exceptions to this policy are made at the discretion of the appropriate Dean's office.
Grades and Scholarship

Final grades are submitted at the end of the term, and these are made part of a student's permanent record in accord with the option chosen by the student. Copies of these reports are given to the students and deans. A progress report of every first-year student in each of the classes is submitted to the Registrar by every instructor at the middle of each term.

Undergraduate students are permitted a selection from two alternative grading options. The course grading options are as follows:

Option 2-S/NC-Satisfactory (C- or higher)/No Credit (D, F)
Option 3-EM-Examination Credit

In addition to those courses which must be taken under Option 2, a student may take a maximum of fifteen semester hours under Option 2 within the hours required for graduation in the degree program. A student may take any course beyond the minimum hours required for graduation in the degree program under Option 2. All courses that are used to fulfill General Education and Competency requirements must be taken under Option 1. The college/school or department may place further restrictions on the use of Option 2. Exceptions to this policy may be made by the dean (or the dean's designee) of the college/school in which a student is enrolled. NOTE: Studies have shown that Satisfactory/No Credit grades (Option 2) on one's academic record may be a negative factor in the evaluation of application for transfer to some undergraduate schools, for admission to most professional schools (law, medicine, etc.) and many graduate schools, and for employment in some fields.

The official marks with their meanings and quality-point values are as follows:

A - Excellent; for each semester hour, 4.0 quality points are allowed.
A- - For each semester hour, 3.6667 quality points are allowed.
B+ - For each semester hour, 3.3333 quality points are allowed.
B - Good, for each semester hour, 3.0 quality points are allowed.
B- - For each semester hour, 2.6667 quality points are allowed.
C+ - For each semester hour, 2.3333 quality points are allowed.
C - Fair, for each semester hour, 2.0 quality points are allowed.
C- - For each semester hour, 1.6667 quality points are allowed.
D - Poor but passing; for each semester hour, 1.0 quality point is allowed.
F - Failed. This mark indicates poor scholastic work, or failure to report withdrawal from a course. In such cases, required courses must be repeated or retaken, preferably at the next opportunity.

S - Satisfactory. This mark indicates credit given for a course taken under grading Option 2, C- or higher. The S credit shall be counted as hours only and shall not be considered in determining a student's cumulative point average.

NC - No Credit. This mark indicates no credit given for a course taken under grading Option 2, below C-. In such cases, required courses must be repeated or retaken, preferably at the next opportunity.

I - Incomplete. This grade indicates that the student has obtained the instructor's recommendation, subject to the chairperson's approval, to complete some portion of the work of the term that for reasons beyond the student's control was not completed before the end of the term, provided that the rest of the work has been of satisfactory grade. An I must be removed within thirty days from the date listed on the grade report, or it will be changed to an F or NC (option 2) on the
student's permanent record. The time limit may be extended under exceptional circumstances, with the approval of the dean, if application for the extension is made within the thirty-day period noted.

**W- Withdrawn.** During the first three weeks of a full term (or the first eight class days of a split term) a student may withdraw from a class without record by obtaining a drop (withdrawal) form from the Registration Office, having it signed by the academic advisor, and processing it. Beginning with the fourth week of the term and continuing through the fourth week after mid-term (or the ninth class day of a split term and continuing through the fourth week of the split term), a student may withdraw with a W by the same process, except that the drop form must have the approval signature of the instructor as well as that of the advisor. For the remainder of the term, until the last day of classes, a student may withdraw with a W only by making a formal request to the dean, who consults with the student's instructor before granting such a request. During this period, a W will be permitted only for special nonacademic reasons. These include, but are not limited to, financial difficulties and matters of personal or family health. Documentation may be required. When a student finds it necessary to withdraw from the University, for any reason whatsoever, it is important that the dean be notified immediately. Financial adjustments, if allowed, will be made only from the date on the withdrawal form. Total withdrawal from all classes requires the processing of the drop form. This requires one signature from the student's Academic dean. It is the student's responsibility to initiate and process all withdrawals; the faculty do not initiate withdrawals for students except for auditors. (See X below.) In addition, the student is urged to process the withdrawal as soon as possible after deciding to drop a course. Students cannot assume that withdrawals are granted automatically if they stop attending class. Any failure to process the drop (withdrawal) form will incur a grade of F for the course or courses involved. The F's so accumulated are always included in the cumulative grade-point average.

**P - In Progress.** This symbol is used in lieu of a grade for a course which has not terminated at the end of a term or summer session. A grade with corresponding credit and quality points (see grading Options 1 and 2) will be assigned when the course has been completed.

**N- No grade was reported by the instructor.**

**K- Credit.** This mark is used only for credits accepted as transfer credit from other institutions. No quality points are allowed. K credit is not allowed for English courses taken at institutions in countries where the native language is other than English.

**X- Audit.** This mark indicates that the student has registered to audit the course. No credit hours or quality points are awarded for this mark. Any course taken for audit may not be retaken for credit. If, in the opinion of the instructor, a student has not attended and participated in a sufficient number of classes, the instructor will assign a W.

**R- Retaken.** An undergraduate student who receives a grade of D or F in a course taken under Option 1 at the University of Dayton may retake that course under Option 1 at the University of Dayton and remove the original D or F from the cumulative GPA. When a course has been retaken and the subsequent grade is higher than or equal to the previous grade, the previous grade will not count towards the student's cumulative GPA henceforth. There will be no retroactive adjustment to GPAs. The transcript will reflect this event with a notation of "same as" in the line containing the original grade. When a course in which a D was received has been retaken, and an F is earned, the initial D will be used in the student's cumulative GPA calculation, and the line containing the F will receive the notation of "same as". A student may have no more than 15 semester hours of "retaken" grades.

If a student retakes a course in which the topics vary, it must be demonstrated that the retaken course contains the same material as the original course in which the student received a D or F. Courses taken by students prior to the initiation of this policy, and before completion of an undergraduate degree, may be retaken within the guidelines of this policy.

Exceptions to this policy may be made by the dean (or the dean's designee) of the school or college in which the student is enrolled.
Addendum to Retake Policy: When a student retakes a course which he or she has taken more than once previously, the retaken course will serve to replace both previous grades (if it is the same as or higher than each). The number of "retaken hours" will be counted as the total hours for the two courses in which the grades are replaced; e.g., if a student retakes PSY 101 in which he or she had previously earned F two times, the new passing grade will replace both Fs, but will count as 6 credit hours taken instead of 3. This student will then be able to take up to 9 additional course grades.

EM- Examination. This mark indicates University of Dayton credit given to a student on the basis either of the Advanced Placement Program of the CEEB or of examinations taken prior to or after admission to the University. The required level of achievement on these examinations is determined by the department in which the course is taught. This credit shall be assigned only on authorization of the registrar. No quality points are allowed. A student must be registered at the University of Dayton to obtain credit. EM credit is limited to 24 semester hours (exclusive of AP and CLEP General Examination credits).

NO GRADE CHANGE OF ANY KIND IS PERMITTED AFTER THIRTY DAYS FROM THE DATE LISTED ON THE GRADE REPORT.

The University reserves the right to change the grading system.

Grade-Point Averages

The SEMESTER GRADE-POINT AVERAGE is the total number of quality points divided by the number of semester credit hours carried by the student under Option 1.

The CUMULATIVE GRADE-POINT AVERAGE is the total number of cumulative quality points divided by the number of cumulative credit hours carried by the student under Option 1. If a course is repeated, the grade points for both the original grade and the new grade are computed. If a course is retaken (see R) and the subsequent grade is higher than or equal to the previous grade, the previous grade will not count towards the student's CGPA henceforth. Marks of I, K, N, P, S, W, X, NC, and EM are disregarded in the computation of the CGPA.

The CUMULATIVE ACADEMIC UNIT GRADE-POINT AVERAGE includes only those courses completed at the University of Dayton and required for the specific degree obtained and/or approved for inclusion by the student's school or college.
Grade Appeals

Procedures for the appeal of grades differ for the College of Arts and Sciences and the Schools of Business Administration, Education and Allied Professions, and Engineering. The student should consult the appropriate dean's office for the grade appeal procedure which would apply to the student's discipline.
Academic Dishonesty

As an institution of higher learning, the University of Dayton expects its faculty and administration to be instrumental in creating an environment in which its students can develop personal integrity.

I. Definitions

Student academic dishonesty is defined as any attempt by the student to obtain, or to assist another student to obtain, a grade higher than honestly earned.

In addition to specific conditions stated by the course instructor, the following are defined as academic dishonesty: cheating; plagiarism; grade alteration; and deception to avoid meeting the stated course conditions.

A. Cheating: Cheating consists of any of the following:

For Examinations: Willfully copying or attempting to consult a notebook, textbook, or any other source of information not specifically authorized by the teacher; willfully aiding or receiving aid from another student during an examination or attempting to give or receive such aid; obtaining or attempting to obtain copies of the examination prior to the time the examination is given; or any other act which violates or attempts to violate the stated conditions of an examination.

For Assignments: When class assignments are such that students are expected to complete the assignment on their own, willfully copying all or part of another student's assignment or attempting to violate or violating any stated conditions of the assignment.

B. Plagiarism: Plagiarism consists of any of the following:

Quoting directly from any source of material-including other students' work and materials purchased from research consultants-without appropriately citing the source and identifying the quoted material; knowingly citing an incorrect source; using ideas (i.e., material other than information that is common knowledge) from any source of material-including other students' work and materials purchased from research consultants-without citing the source and identifying the borrowed material.

The instructor is expected to establish any additional guidelines for plagiarism and should make clear to the students their individual responsibilities on assignments.

C. Grade Alteration: Grade alteration consists of an act which dishonestly modifies a grade obtained for a class assignment, examination or for the course itself.

D. Deception: Deception is defined as any attempt to avoid meeting the stated course conditions, such as making false statements to avoid taking examinations at the scheduled times or to avoid turning in assignments at scheduled times.

II. Penalties and Procedures

The maximum penalty for a proven case of academic dishonesty is an F in the course. No provision can then be made for the student to receive a W. Under some circumstances, such as repeated offenses, theft, intimidation, or breaking
and entering, additional penalties may be imposed by the student's dean. These penalties may include dismissal from the major, dismissal from the school or college, removal from honors programs, or dismissal from the University.

When an accusation of dishonesty occurs, the faculty member must notify the student immediately and in private of the accusation and penalty. If, after a private discussion between the faculty member and the student, the student admits the dishonesty and accepts the penalty, the student's dean will be notified in writing of the violation. This is to be a student's notification with the only other copy to go to the student. If, after the private discussion, the student does not admit dishonesty or accept the penalty, the faculty member alleging the dishonesty will notify, in writing, the student's chairperson and dean, the faculty member's chairperson and dean, and the student. In either case, such notification will become part of the dean's official file on the student but will not be transmitted outside the University.

III. Appeal Procedure

A student who feels an accusation of academic dishonesty is unfair may appeal in the sequential manner listed below:

A. If no resolution occurs in the private conversation with the instructor, the student may appeal to the chairperson of the department in which the course was taught. This appeal must be made in writing within ten days after the written notice and must state the facts as the student sees them. The faculty member also submits evidence at this time to the department chairperson.

B. If the student's appeal is denied by the department chairperson, the student has ten days to file an appeal to the review committee of the college or school in which the violation occurred. In departments where a grade appeal committee already exists, this will be the review committee. The review committee will first select a chairperson, and then meet with the student and faculty member involved on separate occasions and gather any additional evidence or information related to this appeal. The student has the right to see and hear the evidence and to question any witnesses against the student and to present evidence and witnesses on the student's behalf. Both the student and the faculty member must cooperate with the review committee.

The review committee will make known its recommendations and the reasons for its recommendations in writing to the department chairperson(s), the student, the faculty member, and the dean(s).

If the accusation is judged a violation and the penalty appropriate, a record will be sent to the student's dean. If no violation can be proven, all material pertaining to the accusation will be returned to the faculty member.

C. Either the student or the faculty member involved may then make an appeal to the dean of the college or school in which the course was offered. A final appeal may be made to the provost. The final authority rests with the provost.
Academic Standing

The student's academic standing is determined by the cumulative grade-point average at the end of each term.

1. To be in good academic standing, a student must have a cumulative grade-point average of (a) at least 1.7 at the end of the first and second terms, (b) at least 1.8 at the end of the third term, (c) at least 1.9 at the end of the fourth term, and (d) at least 2.0 at the end of the fifth and succeeding terms. For part-time and transfer students, a block of 12 semester hours of credit is considered one term. A cumulative grade-point average of at least 2.0 is required for graduation.

2. A cumulative grade-point average below the one required will place the student on academic probation. The student's academic dean will notify the student of his or her probationary status. A student on probation must follow a restricted academic program not to exceed 15 semester hours.

3. It is the responsibility of any student on academic probation to complete a contract with the dean for the purpose of determining the nature and limitations of the student's future academic and extracurricular activities.

4. Students whose academic performance has seriously impaired their ability to succeed academically at the University of Dayton are subject to dismissal. A student who is subject to academic dismissal can be dismissed only by his or her academic dean, who authorizes the dismissal and notifies the student of his or her status. Students who are subject to dismissal include (a) those who fail to achieve good standing at the end of a term on probation and (b) those who have a term point average of less than 1.0, regardless of cumulative grade-point average.

5. The Registrar will post "Academic Dismissal" on the permanent record of any student who is dismissed.
Internal Transfer Policy

Any undergraduate student having completed one academic semester in good standing at the University of Dayton may initiate a request for Internal Transfer. The student desiring to change his/her major can initiate this process by contacting their advisor and submitting a formal transfer application prior to registration.

To be considered for Internal Transfer the student must meet the following criteria:

- **College of Arts & Sciences**
  
  Cumulative GPA:
  - 1.7 end of first term
  - 1.7 end of second term
  - 1.8 end of third term
  - 1.9 end of fourth term
  - 2.0 thereafter

- **School of Business Administration**
  
  Cumulative GPA of 2.5, completion of an appropriate UD math course, and completion of the SBA transfer process. Please visit Transfer Students in Section VII for additional information.

- **School of Education and Allied Professions**
  
  Cumulative GPA of 2.5 or better, and for those seeking teacher licensure, proof must be submitted of satisfactory standardized testing scores. Please visit Degree Requirements in Section VIII for additional information.

- **School of Engineering**
  
  Cumulative GPA:
  - 1.7 end of first term
  - 1.7 end of second term
  - 1.8 end of third term
  - 1.9 end of fourth term
  - 2.0 thereafter

Units will review applications for transfer and make decisions in a timely fashion with communication to the student, the appropriate units, and the Registrar. Please note: there are times when the student's desired transfer would not be recommended. This decision will be left to the judgment of the dean or his/her designated representative.

More complete information regarding Internal Transfer to the College or schools may be obtained in the respective dean's office.
Dean's List

At the conclusion of the Fall, Winter, and Summer terms, in both the college and the professional schools, any currently registered, degree-seeking undergraduate student completing a minimum of twelve semester hours with a grade point average of 3.50 or above is named to the Dean's List. For purposes of this list, the total hours completed during the multiple Summer sessions are treated as being a single term.

Dean's Recognition List

At the conclusion of the Fall, Winter, and Summer terms, in both the college and the professional schools, any currently registered, degree-seeking undergraduate student completing no less than six semester hours and not more than eleven and one-half semester hours with a grade point average of 3.50 or above is named to the Dean's Recognition List. For purposes of this list, the total hours completed during the multiple Summer sessions are treated as being a single term.

The Dean's List and Dean's Recognition List can be viewed at: http://www.registrar.udayton.edu.
Honors

1. To graduate with honors, a student must have completed a minimum of 60 semester hours at the University of Dayton and have an academic degree program grade-point average at the University of Dayton of 3.50 or higher, based on a 4.00 scale. The academic degree program grade-point average includes all courses taken at the University of Dayton under grading Option 1 and accepted as graduation credits by the student's academic unit, i.e. school or college. Determination of a student's initial honors category recognized in the graduation program is made on the basis of the student's academic record at the conclusion of the term preceding the student's last term at the University or on the basis of the student's academic record at the conclusion of his or her last term.

2. If a student qualifies for honors or moves into a different category of honors on the basis of his or her academic degree program grade-point average, the diploma issued will note the appropriate honor category, notation will be made on the transcript and permanent record, and an appropriate honors key will be awarded. Due to time constraints no adjustments/corrections can be made to the actual printed graduation program.

3. Honors status will be determined by the academic degree program grade-point average and will include only those courses completed at the University of Dayton. Students who transfer to the University of Dayton under the terms of an articulation agreement with a community college may be eligible for honors at graduation even if they have not completed the minimum of 60 semester hours at the University provided that they have met all terms of the articulation agreement.

4. The notation of honors is made in the commencement program, on the diploma, on the student's permanent record, and on the transcript, as follows:

   Cum Laude-if the academic degree program grade-point average is greater than or equal to 3.50 but less than 3.70

   Magna Cum Laude-if the academic degree program grade point average is greater than or equal to 3.70 but less than 3.90

   Summa Cum Laude-if the academic degree program grade-point average is greater than or equal to 3.90

5. Any exceptions to this procedure are the decision of the dean of the student's academic unit.
Commencement/Graduation

Commencement at the University of Dayton is formal recognition of students who are graduating from the University. Consequently, University policy limits participation in commencement to students who have completed all the requirements for their degree. However, undergraduate students who are short not more than seven credit hours prior to the May commencement may, with the approval of their dean, participate in the May graduation ceremony. Such students must be registered for sufficient hours to complete degree requirements during the subsequent summer terms at UD, or have attained approval to fulfill their remaining requirements at another institution, and must provide official documentation of work completed no later than the official date for submission of grades at the conclusion of UD's second summer session. Any exceptions to this policy are the decision of the dean of the student's academic unit. After all degree requirements are met, the degree will be conferred on the next conferral date as noted on the official university academic calendar. If the student is declaring candidacy for Graduation, a #7 Form must be completed either online (http://www.registrar.udayton.edu) or via hard copy and turned into the Registrar's Office, located on the second floor of Albert Emanuel Hall. If a student is receiving two degrees, two separate #7 forms, one for each degree, must be completed. For further information visit the Registrar's website at: http://www.registrar.udayton.edu.

After the summer of 2002, students completing their degree requirements during the summer term will receive a diploma and their academic transcript will denote an August graduation date, but they will have to wait until December to participate in a graduation ceremony.
Class Attendance Policy

It is desirable for students to attend all classes. Listening to the lectures of instructors and being involved in classroom discussions should (1) provide guidelines and goals in the course of study, thus lending direction to the study activities of the student; (2) provide instances of the way of thinking and methodology employed by an academic discipline in formulating and solving problems; and (3) stimulate an awareness of and interest in the course topics beyond the level acquired by textbook reading. Because textbook material is generally beneath the level of the current state of knowledge, instructors acquaint the student with new ideas and integrate this material into the course topics.

Students are responsible for being aware of the proceedings and material covered in each class period. Students must attend all announced tests and submit assigned written work on the date set by the instructor; it is recommended that the instructor announce such tests and assignments at least a week in advance. The action taken as a consequence of missing a test or an assignment will be determined by the instructor and will be based on a consideration of the individual circumstances involved.

To assist first-year students in their transition to college responsibilities, it is felt that a policy of compulsory attendance is necessary; therefore, first-year students will be permitted only a limited number of absences. For first-year students, the allowable number of absences in the first term or in the second term will be equal to twice the meeting times a week (or four class days in any third-term session). A student exceeding this number will be referred to the student's dean for possible counseling and appropriate action. Any undergraduate student who has not accrued 30 semester hours of credit is considered a first-year student.

In addition to the first-year student policy, faculty may institute an attendance requirement. This may be done for any course (including seminars, laboratories, performance courses, clinical field-based courses, and the like) provided that the policy is approved by a faculty committee of the department and/or the department chair. If attendance is used as a grading component, the instructor is obligated to clarify his or her classroom policy regarding absences in writing in the syllabus provided during the first full week of the semester. Let it be noted that to insure accuracy of records, every student must be present at class during the first week of each term.
Student Records

The Family Educational Rights and Privacy Act of 1974 (FERPA) is a federal law which states that an educational institution must establish a written institutional policy concerning the confidentiality of student education records and that students must be notified of this statement of policy and their rights under the legislation. In accordance with the Act, students and parents of dependent students at the University of Dayton have the following rights:

1. The right to inspect and review educational records covered by the Act or personally identifiable information contained therein.
2. The right to challenge the contents of these records.
3. The right to a formal hearing, if necessary, for a fair consideration of such a challenge.
4. The right to place an explanatory note in the record in the event that a challenge of contents is unsuccessful.
5. The right to control, with certain exceptions, the disclosure of the contents of the records.
6. The right to be informed of the existence and availability of the institutional policy covering FERPA rights.
7. The right to report violations of FERPA legislation to the Department of Education.

A complete policy statement on student records in accordance with the requirements of FERPA can be found in the student handbook, published by the Office of Student Development. Copies of the policy also are available at the following University offices: Vice President for Student Development and Dean of Students, Provost, and Registrar.
A transcript of the permanent academic record is a confidential document to be released in compliance with the regulations of the Family Educational Rights and Privacy Act of 1974 as amended. The Registrar will issue transcripts upon a request signed by the student provided that no outstanding financial obligation to the University exists. All transcripts so requested require payment in advance. For more information on "Other Charges," visit Section IV, Financial Information. A complimentary transcript certificate will be given to each graduate when the official diploma is issued. For more information please visit: //www.registrar.udayton.edu.
Awards

Special awards for exceptional scholastic achievement are given annually through the generosity of donors. To be eligible for any of these awards, a student must have a cumulative grade point average of at least 3.0. The awards:

Accounting - Award of Excellence to the Outstanding Senior in Accounting-donated by Jerome E. Westendorf, '43, and Warren A. Kappeler, '41.

Accounting - Award of Merit in Recognition of Outstanding Achievement-donated by The Ohio Society of Certified Public Accountants, Dayton Chapter.

Accounting - The Accounting Career Award to a Student Exhibiting Great Potential in the Accounting Profession-donated by The Institute of Management Accountants, Dayton Chapter.

Accounting - The Clark-Eley-Fioriti Award for Outstanding Service to the Department of Accounting-donated by the Alumni and Faculty of the Department of Accounting.

Adolescent to Young Adult Education - The Dr. Mary R. Sudzina Award for Demonstrated Excellence in Case Study Analysis in Adolescent to Young Adult Education.

Anthropology - The Margaret Mary Emonds Huth Memorial Award of Excellence to the Outstanding Senior in Anthropology-donated by Dr. Edward A. Huth.

Arts and Sciences - The Dean Leonard A. Mann, S.M., Award of Excellence to the Outstanding Senior in the College of Arts and Sciences-donated by Joseph Zusman, '65.


Athletics - The Charles R. Kendall, '29, Memorial Award of Excellence for Achievement in Academic and Athletic Effort-donated by Mrs. Charles R. Kendall and friends.

Athletics - The John L. Macbeth Memorial Award to the Outstanding Scholar-Athlete in Football and Basketball. The recipient must have completed five or more terms and won a varsity letter.

Athletics - The Ann E. Meyers Award of Excellence for Achievement in Academic and Athletic Effort in Women's Basketball and Volleyball.

Biology - The P.K. Bajpai Undergraduate Research Award to the Undergraduate Student who Best Represents the Spirit of Undergraduate Research in Biology.

Biology - The John J. Comer Biomedical Undergraduate Research Award to the Undergraduate Student who Best Demonstrated Research Excellence in 'Biomedical Sciences' as a Biology Major.

Biology - The John J. Comer Ecological Undergraduate Research Award to the Undergraduate Student who Best Demonstrated Research Excellence in 'Ecology' as a Biology Major.

Biology - The John E. Drugos, Jr., Memorial Award of Excellence to the Outstanding Senior Majoring in Biology-donated by Mr. and Mrs. John E. Drugos.
Biology - The Brother Russell A. Joly, S.M., Award of Excellence to the Student who Best Combines Excellence in Biology and Genuine Appreciation of Nature.

Biology - The Learn, Lead and Serve Undergraduate Award of Excellence to the Biology Undergraduate Student who Completed an Outstanding Experiential Learning Project, which included both Leadership and Service.

Business Administration - The Joe Belle Award for Exceptional Service, Recognizing Exemplary Service by a Graduating Student in a Flyer Enterprises Activity.

Business Administration - The Sam Gould Award for Leadership Excellence, Recognizing Outstanding Leadership by a Graduating Senior in a Flyer Enterprises Management Position.

Business Administration - The Miriam Rosenthal Award of Excellence to a Graduating Senior in the School of Business Administration-donated by Dean William J. Hoben.

Business Administration - The Mark T. Schneider Award to a Senior in the School of Business Administration who has Combined Academic Excellence with Service to the University and the Community-donated by family and friends in his memory.

Campus Ministry - The Nancy Bramlage Award Presented by Campus Ministry's Center for Social Concern to a Deserving Student or Student Group that has Most Effectively used Nonviolent Direct Action to Work for Change.

Campus Ministry - The Marianist Award for Voluntary Service to a Graduating Senior who has Earned Distinction Through Voluntary Service to the Community-donated by the Marianists of the University of Dayton.

Campus Ministry - The Brother Wattle Campus Ministry Award: "An Award of Appreciation for Service to Campus Ministry."

Chemical and Materials Engineering - The Victor Emanuel, '15, Award of Excellence to the Outstanding Senior in Chemical Engineering-sponsored by the University of Dayton Alumni Association since 1962.

Chemical and Materials Engineering - The Raymond L. Fitz, Sr., Memorial Award of Excellence in Chemical Engineering to the Outstanding Sophomore in Chemical Engineering.

Chemical and Materials Engineering - The Edmund J. Rolinski Memorial Award of Excellence in Leadership and Service.

Chemical and Materials Engineering - The Robert G. Schenck Memorial Award of Excellence to the Outstanding Junior in Chemical Engineering-donated by Stanley L. Lopata.

Chemistry - The American Chemical Society Award: Patterson College Chemistry Award.

Chemistry - The American Institute of Chemists' Award.

Chemistry - The CRC PRESS Freshman Chemistry Achievement Award to a Deserving First-Year Student Majoring in Chemistry.

Chemistry - The Brother George J. Geisler, S.M., Award of Excellence to the Outstanding Student in Chemistry-donated by Joseph Poelking, '32.

Chemistry - The Arlo D. Harris Assistance Fund to a Deserving First-Year Student Majoring in Chemistry.

Chemistry - The Bernard J. Katchman Memorial Scholarship to an Entering First-Year Student Majoring in Chemistry.

Chemistry - The Brother John J. Lucier, S.M., Award of Excellence to the Outstanding Junior Majoring in Chemistry-donated by a friend.

Chemistry - The Carl I. Michaelis Scholarship Award to a Deserving Junior or Senior Majoring in Chemistry.
Chemistry - The Philip Zaidain Memorial Award to a Deserving Student Majoring in Chemistry.


Civil and Environmental Engineering and Engineering Mechanics - The Harry F. Finke, 1902, Award of Excellence to the Outstanding Senior in Civil Engineering-sponsored by the University of Dayton Alumni Association since 1962.

Communication - The Faculty Award for Academic Excellence to the Senior with the Highest Cumulative and Major Grade Point Averages-donated by the Faculty of the Department of Communication.

Communication - The Bette Rogge Morse Award to the Outstanding Senior Woman in Communication.

Communication - The Dr. Florence I. Wolff Achievement Award for Outstanding Contributions in Academic, Extracurricular and Community Service Activities.

Communication-Broadcasting - The Omar Williams Award of Excellence to the Outstanding Student in Broadcasting-donated by the University of Dayton.

Communication-Debating - The Mary Elizabeth Jones Memorial Award of Excellence to an Outstanding Debator-donated by Dr. D. G. Reilly.

Communication-Journalism - The Ritter Collett Award of Excellence to the Outstanding Senior in Journalism. Awarded annually to the student who best demonstrates in his/her person and writings the qualities of Mr. Collett that the University hopes will serve as an inspiration to the Journalism students.

Communication-Journalism - The Brother George F. Kohles, S.M., Award of Excellence in Journalism-donated by a friend.

Communication-Mass Media Arts - The Si Burick Award of Excellence for Outstanding Academic and Cocurricular Achievement in Mass Media Arts-donated by the University of Dayton.

Communication-Public Relations - The PRSA Maureen M. Pater Award of Distinction to the Outstanding Senior in Public Relations-donated by the Dayton-Miami Valley Chapter of The Public Relations Society of America.

Communication-Speech Arts - The Reverend Vincent R. Vasey, S.M., Award of Excellence to the Outstanding Senior in Speech Arts-donated by Reverend Vincent R. Vasey, S.M.

Communication Management - The Ellen M. Murphy Award of Excellence to the Outstanding Senior in Communication Management.

Computer Science - The Addison-Wesley Senior Book Award for Excellence in Computer Science; Computer Information Systems-donated by the Addison-Wesley Publishing Company.

Computer Science - Award for Outstanding Service to the Department of Computer Science.

Computer Science - The Chair's Award for Excellence in Computer Science.

Computer Science - The GKM Systems Award for Innovative Programming.

Computer Science - The Larry Jehn Alumni Award of Excellence in the Senior Class.

Continuing Education - The Nora Duffy Award to a Reentry Student who has Overcome Significant Obstacles in Order to Complete a College Degree.

Cooperative Education - Award of Excellence to the Outstanding Cooperative Education Student in Business Administration-sponsored by the Mead Corporation Foundation.

Cooperative Education - Award of Excellence to the Outstanding Cooperative Education Student in Computer Science-Computer Information Systems-
sponsored by the Marathon Oil Foundation.

Cooperative Education - Award of Excellence to the Outstanding Cooperative Education Student in Engineering-sponsored by the Dayton Power and Light Company.

Cooperative Education - Award of Excellence to the Outstanding Cooperative Education Student in Engineering Technology-sponsored by Earl C. Iselin, Jr., in honor of his father.

Criminal Justice - The Sheriff "Beno" Kelter Memorial Scholarship Award to the Outstanding Junior or Senior in Criminal Justice-donated by friends of "Beno" Kelter.

Economics - The Dr. E. B. O'Leary Award of Excellence to the Outstanding Senior Majoring in Economics-donated by Bank One.


Electrical Engineering - The Mary C. Millette Endowment Award for the Outstanding Senior Electrical Engineering Student in Memory of Mary C. Millette.


Electronic Engineering Technology - The Richard R. Hazen Award of Excellence for the Outstanding Graduate of the Electronic Engineering Technology Program-donated by Alumni and friends of the Department.

Elementary Education - The George A. Pflaum, '25, Award of Excellence to the Outstanding Students in Early Childhood and Middle Childhood Education-donated by George A. Pflaum, Jr.

Engineering/Humanities - The James L. Heft, S.M., Award of Excellence to the Graduating Senior who Demonstrates a High Degree of Integration of these Different Fields of Knowledge: Humanities and Engineering-donated by Dr. Rocco M. Donatelli.

Engineering Technology - The L. Duke Golden Award of Excellence to the Outstanding Senior in Engineering Technology-donated by the Gamma Beta Chapter of Tau Alpha Pi Honor Society.

English - The Patricia B. Labadie Award for Excellence in Composition.

English - The Brother Thomas P. Price, S.M., Award of Excellence to the Outstanding Senior in English-donated by the U.D. Mothers' Club.

English - The Alex G. Tuss Service Award to the Graduating Senior with an Outstanding Record of Service to the Department and the University-donated by the Tuss Family.

English Education - The Dr. Harry E. Hand Memorial Award of Excellence-donated by the Faculty of the Department of English and the School of Education.

Entrepreneurship - Award of Excellence to the Graduating Senior Majoring in Entrepreneurship who best Embodyes Outstanding Academic Achievement-sponsored by Fifth Third Bank.

Entrepreneurship - The Entrepreneurial Leadership Award to the Graduating Senior Majoring in Entrepreneurship who Exhibits the Greatest Potential for Leadership as an Entrepreneur-sponsored by Robert F. Chelle, Crotty Center Founding Director.

Environmental Biology - The Environmental Biology Award of Excellence to the Outstanding Environmental Biology Major who Excels in All Areas of Academic
Scholarship and Overall Service.

Environmental Biology - The Environmental Biology Internship Achievement Award of Excellence to the Environmental Biology Major who has Demonstrated Significant Achievement while Pursuing Practical Experience through the Internship Program.

Finance - Award of Excellence to the Outstanding Senior Majoring in Finance.

Finance - The Center for Portfolio Management Excellence in Leadership Award to the Outstanding Senior on the Center for Portfolio Management Team.

Finance - The Flyer Investments Excellence in Leadership Award to the Outstanding Student on the Vertically Integrated Investment Program (VI²P) Flyer Investment Portfolio Management Team.

Finance - The Douglas R. Scott "Best Efforts Award" to the Finance Major Deemed to have Worked the Hardest Both In and Out of the Classroom-donated by Douglas R. Scott.

General Excellence - The Mary M. Shay Award of Excellence in Both Academic and Extracurricular Activities (Seniors only)-donated by the Poelking Family.

Geology - The George H. Springer Scholarship to the Outstanding Senior in the Geology Department-donated by Alumni of the Department.

Health and Sport Science - The Thomas J. Frericks Award of Excellence to the Outstanding Senior in Sport Management-donated by the Faculty of the School of Education.

Health and Sport Science - The James M. Landis Memorial Award of Excellence for the Outstanding Health and Sport Science Senior in Science Core Courses.

Health and Sport Science - The James B. LaVanche Award of Excellence to the Outstanding Scholar-Athlete Graduating in the Department of Health and Sport Science -donated by the Faculty and Alumni of the Department.

Health and Sport Science - The John L. Macbeth Memorial Award of Excellence to the Outstanding Student in Health and Sport Science-donated by Mrs. John L. Macbeth.

Health and Sport Science - The Reverend George J. Rennaker Award of Excellence for Outstanding Achievement in the School of Education.

History - The Caroline Beauregard Award of Excellence to the Outstanding Junior Majoring in History-donated by family and friends in her memory.

History - The Dr. Samuel E. Flook Award of Excellence to the Outstanding Senior Majoring in History-donated by Dr. Samuel E. Flook.

History - The Betty Ann Perkins Award for Excellence in Women's and Family History-donated by her family.

History - The Dr. George Ruppel, S.M., Award of Excellence in Historical Research.

History - The Steiner-Beauregard Phi Alpha Theta Service Award for Significant Service Promoting the Activities of the Delta Eta Chapter (Delta Eta Chapter Members only)-donated by Dr. Rocco M. Donatelli.

Humanities - Award of Excellence-Alumni Chair in Humanities Award for Students Writing in the Humanities Base Essay Contest.

Humanities - The Rocco M. Donatelli Award to the Humanities Senior with the Strongest Quantitative and Qualitative Record in Elective Science Courses.

Human Rights - The Human Rights Committee Award to an Outstanding Senior.

Industrial Engineering Technology - The James L. McGraw Award to the Outstanding Graduate of the Industrial Engineering Technology Program.
donated by the Dayton Chapter of The Institute of Industrial Engineers.

Industrial Engineering Technology - The Raymond B. Puckett Memorial Award to the Outstanding Junior in Industrial Engineering Technology.

International Business - Award of Excellence presented to the Graduating Senior Majoring in International Business who has best combined Academic Achievement with Service to the University and Community.

International Studies - The International Studies Award to an Outstanding Senior.

Languages - The Brother John R. Perz, S.M., Award of Excellence to the Outstanding Senior in Modern Languages.

Languages-French - The Brother George J. McKenzie, S.M., Award of Excellence to the Outstanding Senior in Written French-
donated by a friend.

Languages-French - The Enrique Romaguera Award of Excellence to the Outstanding Senior in Spoken French-
donated in honor of his retirement in May 2005.

Languages-German - The Dr. Elke Hatch Award of Excellence to the Outstanding Senior in German.

Languages-Spanish - The Dr. James M. Ferrigno Award of Excellence to the Outstanding Senior in Spanish-
donated by Enrique Romaguera and Mary A. Ferrigno.


Leadership - The Leadership Award for Excellence, Sponsored by The Reynolds and Reynolds Company and The Standard Register Company, Presented to the Graduating Senior in Leadership for Outstanding Academic Achievement and Intellectual Contribution.

Leadership - The Wall Street Journal Award for General Management Presented to the Graduating Senior in Leadership and/or Entrepreneurship Considered to have the Greatest Potential for General Management Responsibilities-sponsored by Dow Jones and Company, Inc.

Library - The Brother Frank Ruhlman, S.M., Award of Excellence for Literary Achievement.

Management and Marketing - The Management/Marketing Department Award for Perseverance Presented to the Graduating Senior Majoring in Entrepreneurship, Leadership, or Marketing who has Displayed the Most Initiative and Perseverance in Pursuing an Undergraduate Education-sponsored by the Faculty of the Management and Marketing Department.

Management Information Systems - The Management Information Systems Design Project Award to the Team Producing the Best Senior Year MIS Project.

Management Information Systems - The Management Information Systems Outstanding Student Award to a Graduating Senior in MIS for Outstanding Contributions to the MIS Program.

Management Information Systems - The Management Information Systems Scholarship Award to a Graduating Senior in MIS for Outstanding Academic Achievement.

Manufacturing Engineering Technology - The Dayton Chapter, Society of Manufacturing Engineers Award of Excellence for Manufacturing Engineering Technology Achievement.

Manufacturing Engineering Technology - The Dayton Chapter, Society of Manufacturing Engineers Award of Excellence to the Outstanding Graduating Senior in Manufacturing Engineering Technology.

Marketing - The Marketing Award of Excellence Presented to the Graduating Senior in Marketing for Outstanding Academic Achievement and Intellectual Contributions.
Marketing - The Marketing Career Award Presented to the Graduating Senior Majoring in Marketing who Exhibits the Greatest Potential in Marketing.

Marketing - The Marketing Service Award Presented to the Graduating Senior Majoring in Marketing who best Embodies the Principles of Learn, Lead and Serve.

Mathematics - The Faculty Award of Excellence in Mathematics.

Mathematics - The Pi Mu Epsilon Award of Excellence in the Sophomore Class.

Mathematics Education - The Brother Joseph W. Stander, S.M., Award of Excellence to a Graduating Senior in the Teacher Licensure Program with a Principal Teaching Field in Mathematics.

Mechanical and Aerospace Engineering - The Class of 1902 Award of Excellence for Outstanding Mechanical Engineering Achievement-donated by Michael J. Gibbons, 1902, in memory of Warner H. Kiefaber, 1905.

Mechanical and Aerospace Engineering - The Professor Henry Chuang Award for Excellence in Energy Conservation and Waste Management.

Mechanical and Aerospace Engineering - The Bernard F. Hollenkamp, '39, Memorial Award of Excellence to the Outstanding Senior in Mechanical Engineering-donated by Louise A. and Mrs. Lucille Hollenkamp.

Mechanical and Aerospace Engineering - The Martin C. Kuntz, '12, Award of Excellence to the Outstanding Junior in Mechanical Engineering-sponsored by the University of Dayton Alumni Association since 1962.

Mechanical and Aerospace Engineering - The Brother Andrew R. Weber, S.M., Award of Excellence for Outstanding Service and Achievement in Mechanical Engineering.

Mechanical Engineering Technology - The Dayton Chapter, Society of Manufacturing Engineers Award of Excellence for Mechanical Engineering Technology Achievement.

Military Science - The Department of the Army Award. The Superior Cadet Award, provided by the Department of the Army, presented to the Outstanding Cadet of each academic year.

Military Science - The Brian J. Bentz Memorial Scholarship Award Presented to the Outstanding Junior ROTC Cadet who Exemplifies the Dedication and Commitment for Further Study in Military Science-donated by his family and friends.

Military Science - The Lieutenant Robert M. Wallace, '65, Memorial Award of Excellence in ROTC-donated by his family and friends.

Music - The Department of Music Senior Award for the Outstanding Collaborative Pianist.

Music - The Department of Music Senior Award for Outstanding Contribution to the University Bands.

Music - The Department of Music Senior Award for Outstanding Contribution to the University Orchestra.

Music - The Department of Music Senior Award for Outstanding Contribution to the University Vocal Ensembles.

Music - The Department of Music Service Award.

Music - The Brother Joseph J. Mervar, S.M., Award of Excellence to the Outstanding Student Majoring in Music.

Music - The Phi Mu Alpha College Honor Award for Musicianship, Scholarship,
and General Contributions to the College Chapter.

Music - The Phi Mu Alpha Professional Music Fraternity Scholastic Award to the Chapter's Graduating Senior who has Attained the Highest Scholastic Rating.

Music - The Sigma Alpha Iota College Honor Award for Musicianship, Scholarship, and General Contributions to the College Chapter.

Music - The Sigma Alpha Iota Professional Music Fraternity Scholastic Award to the Chapter's Graduating Senior who has Attained the Highest Scholastic Rating.

Music - The University Band Spirit Award.

Operations Management - The Operations Management Professional Service Award to a Graduating Senior in OPS for Outstanding Contributions to the OPS Program.

Operations Management - The Operations Management Outstanding Scholarship Award to a Graduating Senior in OPS for Academic Excellence.

Operations Management - The Operations Management Outstanding OM Senior Project Award to the Team Producing the Best Senior Year OPS Project.

Philosophy - Award of Excellence to the First and Second Outstanding Seniors in Philosophy-donated by Reverend Charles Polichek.

Philosophy - The Richard R. Baker Award for Excellence in Philosophy to the Graduating Student who has Earned Distinction in the Study of Philosophy Through Commitment to Philosophical Inquiry and Assisting Other Undergraduate Students in Their Pursuit of Philosophical Studies.

Philosophy - The Reverend Charles C. Bloemer, S.M., Award of Excellence to the Outstanding Junior Majoring in Philosophy-donated by a friend.

Philosophy - The Raymond M. Herbenick Award for Excellence in Interdisciplinary Integration to a Student Completing the CORE Program-donated by the Department of Philosophy Faculty.

Physics - The Caesar Castro Award of Excellence to a Sophomore for Outstanding Scholarship in the General Physics Lecture and Laboratory Sequence-donated in memory of Caesar Castro by Mrs. C. C. Castro and the Department of Physics.

Physics - The Sigma Pi Sigma Award of Merit to a Senior in Recognition of Outstanding Academic Achievement and Involvement in Physics-sponsored by the Department of Physics and the Sigma Pi Sigma Honor Society of The Society of Physics Students.

Political Science - The Brother Albert H. Rose, S.M., Award of Excellence to the Outstanding Senior in Political Science-donated by Joseph Zusman, '65.

Political Science - The Eugene W. Stenger, '30, Memorial Award of Excellence to the Outstanding Junior in Political Science-donated by Mrs. Eugene W. Stenger.

Premedicine - The Miami Valley Academy of Family Physicians Award to the Graduating Senior whose Activities Exemplify the Philosophy of Family Medicine.

Premedicine - The Brother Francis John Molz Memorial Award to the Outstanding Senior in Premedicine. Awarded annually to the student who best demonstrates the qualities of unselfishness, community service, and academic achievement-sponsored by Alpha Epsilon Delta.

Premedicine - The Montgomery County Medical Society Award to the Outstanding Senior in the Premedical Curriculum.

Premedicine - The Joseph E. Scherger, MD, MPH Leadership in Medicine Award to a Graduating Premedical Student who has Demonstrated Leadership toward Improving the Health of the Public through Better Health Care.

Psychology - The Kenneth J. Kuntz Award for Outstanding Service-donated by the Department of Psychology Faculty.

Religious Studies - The William Joseph Chaminade Award of Excellence, in Memory of Mr. and Mrs. George W. Dickson, to the Outstanding Student in Theology-donated by Reverend John Dickson, S.M., '36.

Religious Studies - The Monsignor J. Dean McFarland Award of Excellence to the Outstanding Junior Majoring in Religious Studies.

School of Education - The William A. Beitzel Award for the Outstanding Student in Intervention Specialist Education- donated by Dean Emeritus Ellis A. Joseph.

School of Education - The Raymond and Beulah Horn Award of Excellence for an Outstanding Student in the Area of Intervention Specialist Education-donated by Dean Emeritus Ellis A. Joseph.

School of Education - The Daniel L. Leary Award for the Outstanding Research and Development Activity by a Student Seeking Teacher Licensure in the School of Education-donated by Dean Emeritus Ellis A. Joseph.

School of Education - The Frank and Lois New Award for Outstanding Achievement to a Graduating Senior in the Teacher Education Program with a Principal Teaching Field in Intervention Specialist Education.

School of Education - The Reverend George J. Renneker, S.M., Award of Excellence for Outstanding Achievement in Teacher Education.

Secondary Education - The Brother Louis J. Faerber, S.M., Award of Excellence to the Outstanding Student in Adolescent to Young Adult Education-donated by the University of Dayton Mothers' Club.


Sociology - The Dr. Edward A. Huth Silver Anniversary Award of Excellence to the Outstanding Student in Sociology-donated by Joseph Zusman, '65.

Sociology - The Dr. Martin Luther King Memorial Award in Human Relations for Excellence in Scholarship, Christian Leadership, and the Advancement of Brotherhood and Sisterhood-donated by Dr. Edward A. Huth.

Sociology - The Reverend Andrew L. Seebold Award of Excellence to the Outstanding Senior in Sociology.

Theatre - The Dr. "G.* Award for Outstanding Commitment to Mainstage Theatre Recognizing a Graduating Senior who has Demonstrated a Willingness to Involve Himself/Herself in the Wide Spectrum of Theatrical Production on the Boll Theatre Mainstage.

University Advancement - Award of Excellence for Contribution of Service to the Community.

Visual Arts-Fine Arts - The Mary Ann Dunsky Award to the Outstanding Senior in Studio Art.

Visual Arts-Fine Arts - The Bela Horvath Award for Excellence in Representational Art.

Women's Studies - The Joyce Durham Award for the Best Student Essay on the Subject of Women or Gender.

Women's Studies - The Susan R. Hermes Award for Excellence in Women's Studies - donated by Drs. Jane S. Zembaty and Patricia A. Johnson.
College of Arts and Sciences

Mary E. Morton, Dean
Paul H. Benson, Associate Dean
Mary J. Brown, Associate Dean
Donald J. Polzella, Associate Dean
Andrea J. Chiodo, Assistant Dean
John E. Erdei, Assistant Dean
Rae Ellen Huff, Assistant Dean
Sam F. Johnson, Assistant Dean
Julie L. Mitchell, Assistant Dean
Laura H. Yungblut, Assistant Dean

The College of Arts and Sciences is a distinctive learning community that forms the vital center of the University of Dayton. In the finest tradition of liberal education, the College is committed to excellence in the discovery, integration, dissemination, and application of knowledge. The College delivers the University General Education Program and helps students to develop their competencies in written and oral communication, quantitative reasoning, and information literacy. Academic programs provide instruction in critical thinking and expression, social and cultural criticism, computation, scientific reasoning, the creative and performing arts, historical analysis, and religious and moral awareness. The College of Arts and Sciences takes as its mission the Marianist principle of educating the whole person and enabling all members of our learning community to fulfill their potential.

The faculty of the College of Arts and Sciences demonstrate connected learning and scholarship by integrating teaching, research, and service. They engage students from across the University in this process through traditional and innovative approaches to learning. The faculty understand that the principles of liberal education emerge not only from the classroom, studio, and laboratory, but also from the many resources the students have within their reach: advisement, mentoring; the campus ministry; social and professional clubs and societies; campus media and publications; fine arts events; and membership on departmental and campus-wide committees where students gain experience in working with others and contribute to the wider University community. Taken together, these dimensions of liberal education form the basis for lifelong intellectual, professional, and personal growth.

The College of Arts and Sciences affirms its commitment to the Catholic and Marianist tradition. In humanities and social science programs, in the physical and life sciences, in the creative and performing arts, the College strives to ensure that its graduates are distinguished by their discernment and intellectual rigor, their broad base of learning, and their sense of moral responsibility. And through their participation in a vital learning community, the College ensures the graduates will be distinguished by their appreciation and respect for diversity, their commitment to service, and their ability to affect positively individual lives and the common good.
For detailed information on specific majors and minors, please visit the Academic Information section of the Bulletin.

The major is defined as a block of courses totaling at least 24 semester hours of upper-level work in a single discipline. Transfer students are required to take a minimum of 12 upper-level semester hours in the major at the University of Dayton. Some departments may have additional requirements for transfer students. These additional requirements are defined specifically in the departmental listings.

Single-discipline and interdisciplinary minors are defined in the departmental listings. Transfer students must take a minimum of 6 upper-level semester hours in the minor at the University of Dayton. Some departments may have additional requirements for transfer students. These additional requirements are defined specifically in the departmental listings.

The Bachelor of Arts is offered in the following areas:

American Studies  |  Art History  |  Chemistry  |  Communication  |  Criminal Justice Studies  |  Economics  |  Fine Arts  |  French
---|---|---|---|---|---|---|---
German  |  History  |  International Studies  |  Languages  |  Mathematics  |  Music  |  Philosophy*  |  Photography
Psychology  |  Religious Studies  |  Sociology  |  Spanish  |  Theatre  |  Visual Communication Design  |  Women's and Gender Studies

* The philosophy major program is also offered in India in conjunction with the Marianists.

The Bachelor of Science is offered in the following areas:

Applied Mathematical Economics  |  Biochemistry  |  Biology  |  Chemistry  |  Computer Information Systems
---|---|---|---|---
Computer Science  |  Environmental Biology  |  Geology  |  Mathematics  |  Physical Science
Environmental Geology  |  Physics
Mathematics  |  Physics-Comp. Sci.
Computer Science  |  Predentistry

Other programs leading to the bachelor's degree:

---|---|---|---|---

Established Interdisciplinary Majors

American Studies, Criminal Justice Studies, International Studies, Predentistry, and Women's Studies are present examples of established interdisciplinary concentrations. Such programs are established by interdisciplinary committees and administered by the program directors.
Individually Designed Interdisciplinary Majors

Students demonstrating extraordinary interest, special skills or needs, and sound academic status may initiate individually designed majors. Students carry the responsibility to find a faculty mentor or advisor for such majors. All University and College requirements for the Bachelor of Arts or Bachelor of Science degree must be fulfilled. The degree received will be a Bachelor of Arts or Science in Interdisciplinary Studies. Candidacy for the Bachelor of Arts or Science in Interdisciplinary Studies must be declared no later than the last semester of the junior year. Long-range plans for such majors must be submitted to the appropriate chairpersons and the dean for final approval. Plans may be altered with appropriate supporting rationale and the approval of the chairperson and dean.
Foreign Language Entrance Requirement

Any student admitted to the College of Arts and Sciences must have had two years of high school study of a single foreign language or make up the deficit at the University. The deficit may be made up by successful completion of one of the following courses or the equivalent: FRN 102 or 121; GER 102 or 121; LAT 102 or 121; SPN 102 or 121; ITA 141; RUS 141.

Proficiency in a Foreign Language

The College of Arts and Sciences strongly encourages its students to acquire the highest level of foreign language proficiency. Students may show proficiency by demonstration of basic practical communicative competence in a foreign language. Proficiency for modern languages includes the following four skills:

- Listening: comprehension of main idea and some supporting detail in passages of up to 250 words of everyday speech on familiar topics in a context that provides significant support for the message.
- Reading: comprehension of main idea and supporting detail in contextualized written passages of up to 600 words in which a generally familiar, everyday topic is discussed.
- Speaking: ability to indicate interests and needs, ask and answer questions, communicate personal information, and obtain essential services. Speech is sufficiently accurate to be understood by native speakers.
- Writing: ability to write messages and simple descriptions on familiar topics, to provide biographical information, and to express interests and preferences. Native speakers can understand the message with little difficulty.

Students entering the University have the opportunity to demonstrate the defined levels of proficiency by passing a University placement/proficiency examination. Any student who has not achieved proficiency as determined by this examination upon entry can choose from the following options to reach proficiency:

- course work at the University of Dayton
- course work elsewhere
- an individual study program
- study abroad
- an immersion experience

At the conclusion of one of these options, the student must pass the proficiency examination to satisfy the Foreign Language option within the Humanities and Fine Arts component of the Liberal Studies Curriculum (see General Requirements for the B.A. Degree.) The department of languages offers the following possible sequences of foreign language courses:

**Beginner sequence:** For students who have never studied the language previously or who demonstrate no functional ability: 101-102-141 (9 sem. hrs.) in French, German, Latin, and Spanish; 101-141 (8 sem. hrs.) in Italian and Russian.

**Intensive beginner sequence:** For experienced language learners who wish to learn a new language: 111-141 (9 sem. hrs.) available only in French, German and Spanish.

**Accelerated sequence:** For students with previous language study or experience who demonstrate some functional ability on the
placement/proficiency examination: 121-141 (7 sem. hrs.) available in French, German, Latin and Spanish.

Capstone course: For students with significant language study or experience: (3 sem. hrs.) available in all languages.

Students choosing to complete the Liberal Studies Curriculum using Latin as their language will be required to demonstrate proficiency in reading and translation only.

Students whose first language is not English demonstrate foreign language proficiency by satisfying the University General Competencies requirements in writing and oral communication. These Students may satisfy the Foreign Language option in the Humanities and Fine Arts components of the Liberal Studies Curriculum for the B. A. degree by demonstrating proficiency in another foreign language or by taking courses in the humanities and/or arts areas.
General Requirements for all Bachelor of Arts Programs

A minimum of 124 semester hours of approved coursework must be presented for the B.A. At least 48 semester hours must be completed at the 300-400 level. For limitations on credit and restrictions on courses, consult the chairperson or the dean. No more than 45 hours of the minimum 124 hours may be completed in a student's major discipline.

Introduction to the University

In the first semester, students take a course that introduces them to the University and to their major field of study. Undeclared students take specific sections of this course.

Major Concentration

Most major programs require between 30 and 45 semester hours. For department or program requirements, consult program schedules or the department chairperson or program director.

Liberal Studies Curriculum

Every student will complete the Liberal Studies Curriculum. This Curriculum provides students with a breadth of study and experiences in the humanities, the creative and performing arts, the social sciences, and the natural sciences. It complements specialized study in a major, presupposes the University General Competencies Requirements, and ensures completion of the Humanities Base and a Thematic Cluster through completion of the General Education Requirements. Where appropriate, credits in the Liberal Studies Curriculum may apply to other requirements but no more than six hours may be in the departmental major concentration. The Liberal Studies Curriculum includes:

Philosophy and Religious Studies: Students complete 12 semester hours including a Humanities Base course in philosophy, a Humanities Base course in religious studies and two additional General Education approved courses in philosophy and/or religious studies.¹

History: Students complete 6 semester hours including a Humanities Base course and one additional General Education approved course in historical study.¹

English or Foreign Language Literature: Students complete 3 semester hours in English literature or foreign language literature selected from a list of approved courses.²

Creative and Performing Arts: Students complete 3 semester hours in theory, appreciation, or history of visual arts, music, or theater selected from a list of approved courses; or complete 3 semester hours in production and performance selected from a list of approved courses.²

Foreign Language and/or Additional Arts and/or Humanities: Students may choose to demonstrate proficiency by examination of basic practical communication proficiency in one foreign language.

Students who meet language proficiency without taking College courses in language must complete at least 3 additional semester hours of study in the arts and/or humanities beyond basic skills. Students who demonstrate language
proficiency by taking 3 to 9 semester hours of language study take no additional hours in the arts and humanities.

Students who choose not to demonstrate language proficiency select 8-9 semester hours in the arts and humanities beyond basic skills including courses in any of the preceding categories or any other arts or humanities area, in consultation with their academic advisor. Individual departments may specify how these hours are to be used for those students who do not choose the language proficiency option.

Social Sciences: Students complete 12 semester hours including two courses at the introductory level from at least two different traditional disciplines (ANT 150, ECO 203, POL 101 or 201, PSY 101, and SOC 101), one course at the 300-400 level in one of the disciplines in which an introductory course was taken, and one additional course from any of the traditional disciplines or from the list of courses approved for General Education social science. (Students in the E-11 program may take two approved courses in the School of Education).

Mathematics: Students complete 3 semester hours selected from courses in the Department of Mathematics (MTH 102, 204, 205 excluded).

Natural Sciences: Students complete a sequence of 3 lecture courses with 2 accompanying laboratories in the Integrated Natural Science Sequence for a total of 11 semester hours. Students who wish to do more advanced study in science may complete 9 semester hours in science courses approved for majors in the departments of biology, chemistry, geology, and Physics and 2 sem. hrs. of accompanying laboratories in lieu of the Integrated Natural Science Sequence.

1. Students should consider using this area of study to help fulfill the general education Thematic Cluster requirement. A Thematic Cluster includes a minimum of three courses, each course selected from a separate area (Philosophy, Religious Studies, Historical Studies, Arts Studies, Social Science, and Natural Science).

2. Courses for English and Foreign Language Literature are as follows:

CLA 350
FRN 350, 352, 360, 361, 362, 361, 450, 452
GER 350, 361, 362, 450
ITA 361, 362
SPN 350, 361, 362, 363, 364, 450, 451, 471, 472

3. Courses for Creative and Performing Arts are as follows:

ASI 214, 341
CMM 311, 331, 332, 333, 341, 342, 343, 344, 351, 442, 444, 449
ENG 282, 284, 286, 301, 312, 331, 382
THR 100, 105, 201, 202, 203, 251, 261, 271, 300, 301, 303, 305, 307, 310, 312, 320, 323, 325, 326, 330, 344, 351, 361, 371
VAF 104, 112, 117, 204, 226, 228, 232, 240, 253, 304, 325, 326, 328, 332, 340, 353
VAH 101, 201, 202, 203, 350, 360, 370, 382, 383
VAP 101, 201
VAR 210, 220
## Summary of Requirements for the B.A.

<table>
<thead>
<tr>
<th>Category</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>30-45</td>
</tr>
<tr>
<td>Liberal Studies Curriculum</td>
<td></td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>English or Foreign Language Literature</td>
<td>3</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities</td>
<td>3-9</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>11</td>
</tr>
<tr>
<td>General Competencies</td>
<td>0-9</td>
</tr>
<tr>
<td>Introduction to the University</td>
<td>0-1</td>
</tr>
<tr>
<td>Electives to total 124 hours</td>
<td>10-41</td>
</tr>
</tbody>
</table>

[http://bulletin.udayton.edu/content.ud?v=16&p=2286&c=2290](http://bulletin.udayton.edu/content.ud?v=16&p=2286&c=2290)
General Requirements for all Bachelor of Science Programs

A minimum of 120 semester hours of approved coursework must be presented for the B.S. For limitations on credit and restrictions on courses, consult the chairperson or the dean. For departmental or program requirements, consult program schedules or the department chairperson or program director.

<table>
<thead>
<tr>
<th>Sem. Hrs.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Concentration (with at least 24 semester hours at 300-400 level).</td>
<td>30-60</td>
</tr>
<tr>
<td>Breadth Requirement (See Distribution Table below.)</td>
<td>41-50</td>
</tr>
<tr>
<td>General Education Requirements: These courses may also be counted for other requirements where applicable. (See Chapter V.)</td>
<td>30</td>
</tr>
<tr>
<td>Program Requirements and General Electives: Electives should be approved by the chairperson or dean since some restrictions exist.</td>
<td>10-40</td>
</tr>
</tbody>
</table>

Distribution Table for Breadth Requirements

Courses taken to fulfill the breadth requirement should be external to the major concentration. Students electing courses in any department should be aware that some introductory or background knowledge may be expected of them even when no specific prerequisite course is listed.

<table>
<thead>
<tr>
<th>Sem. Hrs.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences: Selected from Biology, Chemistry, Geology, and Physics courses with accompanying laboratories.</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics, Computer Science: At least 3 semester hours must be in Mathematics, the course(s) to be determined by placement and major program.</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Anthropology, Economics, Political Science, Psychology, Sociology. Up to 3 of the 6 semester hours of social</td>
<td>6</td>
</tr>
</tbody>
</table>
and behavioral sciences may, with the approval of the chairperson of the major department or the director of the program, be taken in applied social and professional studies: Criminal Justice Studies, Education, Human Ecology, Management, Marketing, Military Science, Social Work, and appropriate courses in ASI, AMS, and CMS.

_Humanities:_ American Studies, Communication, English, History, Humanities Studies, Languages, Music, Philosophy, Religious Studies, Visual Arts, and, with the approval of the chairperson of the major department or director of the program, appropriate courses in ASI. (The basic Philosophy, Religious Studies, and communication skills courses do not fulfill this requirement.)

_Philosophy and Religious Studies_  

_Communication Competencies_ (ENG 101-102 or 114 or 198; CMM 110, 111 or 112, 113): Each student should demonstrate competence in written and oral communication before the completion of the first year. This competence may be demonstrated through coursework, proficiency examinations, or advanced standing. Information on this matter should be sought in the office of the dean.
Degree Requirements

To be awarded the bachelor's degree by the College of Arts and Sciences, it is necessary to complete all the requirements listed for one of the academic programs offered by the College. A maximum of four semester hours of general activities courses, a maximum of two semester hours of physical education activities courses, a maximum of ten semester hours of MIL courses, and a maximum of six hours of applied courses may be counted in the semester hours required for the degree. In addition, a maximum of one semester hour from ASI 150, VAR 100, or an equivalent course may be counted in the semester hours required for the degree. The final 30 semester hours must be earned at the University of Dayton. Furthermore, a minimum of 12 semester hours of coursework at the 300 and 400 level in the major must be completed at the University.
Graduation Requirements

1. It is the responsibility of the student to file his or her Candidate for Graduation form.
2. For graduation, it is necessary that the student successfully complete an approved program of studies in the College; that the standard grade point average be at least 2.0 in the major field, in the minor field, and in the total program. In the Bachelor of Fine Arts and Bachelor of Music Programs, a 2.0 cumulative grade point average is required in the nonprofessional courses as well as in the professional courses.
Internship Program

The Internship Program is an educational work experience with an outside agency, in which a full-time student registers for on-the-job work performed without direct supervision by academic personnel. Such work can be performed in a variety of areas; however, the general purpose of all internships is to serve as transition between the world of study and the world of work.

Normally a departmental internship director or another designated faculty member will make all contacts with prospective agencies for placing students as interns. While students themselves may initiate contacts at possible sites, all sites must be ruled acceptable by the director before an internship may begin.

In order to accomplish the general purpose of an internship, the student must adhere to the following requirements:

- To be eligible for an internship, a student must be in good standing at the University of Dayton and have successfully completed course work in areas appropriate to the internship sought.
- An intern may receive no more than six semester hours of credit in any semester for internship.
- No more than twelve semester hours of work experience credit in any kind of internship or work experience program can be accepted toward a baccalaureate degree.
- The student intern will submit a daily log and a written report to the internship director at the conclusion of the internship.

Other procedures and requirements in addition to those mandated by the College may be imposed by departments for individual programs to meet the specific nature of a given internship.

Interested students should see the internship directors in their respective departments for further details.
Mini-Courses

Mini-courses are special, short-term, interdisciplinary credit courses developed by University faculty, (or sometimes by students with the advice and consent of a faculty member), to meet specific, highly current needs or interests not covered in the regular curricula. They are free of charge to all full-time students, even if the course puts them over the full-time limit, and are open to part-time and non-UD students for credit or audit. The typical mini-course carries one semester hour of credit, or fifteen class hours. Classes can be in various sequences, extending over several weeks or concentrated within a few days. Some mini-courses take the form of workshops. Occurring at various times in the year, mini-courses are publicized throughout campus. They can be added to students schedules during the term. For a sample listing of mini-courses, visit University Interdisciplinary Studies (UDI) in Academic Information.
Special Programs and Continuing Education

To serve adults in the Dayton community, the College provides a variety of noncredit courses, many in the form of workshops, seminars, study tours, conferences, and teleconferences. These are planned to meet the educational and training needs of organizations and of the community and are held both on and off campus. This office also administers Elderhostel, OSHER Lifelong Learning Institute, Senior Fellows, and New Horizons Band, for persons fifty and over. Continuing Education Units (CEU) are awarded for a fee for some offerings.
School of Business Administration

Patricia Meyers, Dean
James Dunne, Associate Dean
Paul Sweeney, Associate Dean
Janice Glynn, Director, MBA Program
John Shishoff, Director, Undergraduate Programs

Mission

We are a learning community committed in the Marianist tradition to educating the whole person and to connecting learning and scholarship with leadership and service within an innovative business curriculum designed to prepare students for successful careers in the contemporary business environment.
The School of Business Administration seeks to develop people and knowledge which make a difference in business and society. For this reason, the undergraduate curriculum emphasizes three distinct areas of knowledge: a foundation in the liberal arts (general education requirements), a firm grounding in the common body of business knowledge (core business requirements) and specialization in a business major. Supplemented with opportunities for enrichment, the curriculum stimulates critical thinking, enhances communication skills, integrates and synthesizes knowledge, and fosters ethical decision-making and moral leadership. Built upon the enduring and fundamental bases of knowledge, it is designed to prepare students for successful careers in the complex global economy of the 21st century.

All business students follow essentially the same curriculum during their first and second year, regardless of major. This curriculum consists of a common set of general education and core business requirements. There is some scheduling flexibility in the program, in that certain courses listed in the first year can be taken in the second year (or later) and vice versa. Students should consult an academic advisor in the dean's office or department of their major for sequencing options.

Students majoring in management information systems and entrepreneurship need to schedule courses required for the major during their second year. Students interested in these majors should follow the course sequence listed for each program. Visit Academic Information for specifics.

All business students also take fundamentally the same upper level general education and core business requirements during the third and fourth year. Note that each major also includes several hours of general electives, which students often use to support an additional major or minor. In choosing electives, students must bear in mind that a minimum of 54 semester hours of all academic work must be at the 300-400 level. Additionally, only a maximum of seven hours can double count to fulfill the requirements of any two separate majors or any major and minor combination.

### First Year Courses

#### (Core Business Requirements)
- BAI 150 Business Educational Planning
- BAI 103L Business Computing Lab
- BAI 151 Business Integration Experience

#### (General Education Requirements)
- MTH 128 Finite Mathematics
- MTH 129 Calculus for Business
- ENG 101 College Composition
- ENG 102 College Composition
- CMM 110 Group Decision Making
- CMM 111 Informative Public Speaking
- HST 103 History of Western Civilization
- PHL 103 Introduction to Philosophy
REL 103  Introduction to Religion
Physical or Life Science elective (BIO, CHM, GEO, PHY)
Social Science elective (ANT, POL, PSY, SOC, SWK)

Second Year Courses
(Core Business Requirements)

ACC 207  Introduction to Financial Accounting
ACC 208  Introduction to Managerial Accounting
DSC 210  Statistics for Business I
DSC 211  Statistics for Business II
ECO 203  Principles of Microeconomics
ECO 204  Principles of Macroeconomics
MGT 201  Legal Environment of Business

(General Education Requirements)
HST elective
Physical or Life Science elective (BIO, CHM, GEO, PHY)

CMM 113  Interviewing

Third and Fourth Year Courses
(Core Business Requirements)

FIN 301  Business Finance
MGT 301  Organizational Behavior
MIS 301  Info Systems in Organizations
MKT 301  Principles of Marketing
OPS 301  Survey of Operations Mgt
MGT 490  Managing the Enterprise
ECO elective

(General Education Requirements)

PHL 313 or REL 368  Business Ethics

(Major Requirements)
Courses required for the major. (Visit program descriptions in Academic Information.)

(General Electives)
Most majors have 12 hours of General Elective courses associated with the major. Exceptions are Operations Management, which has 9 hours, and Accounting and Management Information Systems, which have 6 hours each. Many students use the general elective hours to support an additional major or minor.

1 A proficiency test for BAI 103L is available for those with adequate background.
2 MTH 102 is recommended to be taken before MTH 128 for students with insufficient knowledge of secondary mathematics. MTH 102 does not count toward minimum graduation requirements.
3 Students placed in ENG 114 or 198 must take a three semester hour nonbusiness elective.
4 CMM 110, 111, and 113 may be taken during different years than indicated here. Some academic majors recommend taking some of these courses during the junior year. See your faculty advisor for sequencing possibilities.
Academic Programs

For detailed information on specific majors and minors, please visit the Academic Information section of the Bulletin.

The School of Business Administration seeks to develop people and knowledge which make a difference in business and society. Our mission is to create outstanding value for our stakeholders by providing high quality educational programs that deliver the best in business thinking and practice, embody the Catholic/Marianist educational tradition and prepare well-rounded graduates for successful business careers and further education.

The School of Business Administration offers a Bachelor of Science degree with majors and minors in:

- Accounting
- Business Economics
- Entrepreneurship
- Finance
- International Business
- Leadership
- Management Information Systems
- Marketing
- Operations Management

Minors are also available in:

- Business Administration (non-business majors only)
- Decision Sciences
- E-business

Requirements for majors and minors are set forth under the program descriptions, located in Academic Information. Interested students should visit the Curriculum page in this section first to gain an overall understanding of the core curriculum that supports each program.

Double majors and minors in business administration programs, and also in non-business programs, are available. A minimum of seven hours of coursework can double count between double majors and a major and a minor. Interested students should consult with the Office of the Dean and the appropriate departments for details.

A Bachelor of Science in Business Administration with a major in accounting, coupled with an MBA degree is also available. This program normally requires a fifth year of study. Additionally, students must apply and qualify for admission into graduate school during their fourth year in order to participate.
Admission to the School of Business Administration

The minimum requirements for admission to the School of Business Administration are the following:

- Graduation from an accredited high school
- The following units of college preparatory subjects:
  - English 4 units
  - Mathematics (Algebra I & II, Geometry) 3 units
  - Natural Science with a Laboratory 1 unit
  - Social Science 2 units

- Desired academic credentials include upper-half of high school graduation class, SAT scores of 1000 or higher, and ACT scores of 22 or higher.
- Any person whose native language is not English must submit an acceptable score in the Test of English as a Foreign Language (TOEFL). (For more information, visit International Students in Section III, Admission.)
Transfer Students and Transfer Courses

Candidates for admission from other accredited colleges or universities must be in good academic standing in the colleges or universities from which they are transferring and submit a complete application in accordance with UD admissions policies.

Students seeking to transfer into the School of Business Administration (SBA) from other UD divisions must first attend an academic transfer counseling meeting (scheduled by calling 229-3731); and then submit a completed SBA transfer application (provided during the academic counseling meeting), with a letter indicating their reasons for requesting the transfer. Applications will be evaluated in October, January, March, and July of each year. Students will initially be conditionally accepted. The conditions which must be met before actually being transferred to the SBA include the completion in good form of an SBA academic plan and a resume, which must be posted with Career Services. UD transfer students should complete this process prior to taking any upper level (300 and 400 numbered) courses required for the SBA degree.

Approvals for all transfers will be based on consideration of previously earned UD GPA, SAT and/or ACT scores, high school record, and other information in the application. Applicants should also exhibit professional behavior during the transfer process. Approvals may be limited by the enrollment space available. Normally, however, no student will be approved for transfer without a cumulative GPA of 2.5 or higher, and completion of an appropriate math course, such as MTH 116, 128, or a higher level UD math course.

Transfer Courses

Individual courses can be transferred only if the student earned a grade of C- or better; courses in which a D or F grade was received will not be transferred. Most 200 level and all upper division business courses can only be transferred from business schools accredited by AACSB International (The Association to Advance Collegiate Schools of Business). At least 75 percent of a student's business courses must be completed at the University of Dayton. Students planning to attend two year colleges before transferring to the School of Business Administration are encouraged to follow arts and sciences or pre-business programs rather than technical programs. (Also visit Section III, Admission.)
Student Laptop Policy

All full-time students are required to purchase a laptop computer from the University of Dayton.

Part-time students are also encouraged to buy a UD laptop. Part-time students admitted to the SBA in a degree program must purchase/possess the standard UD laptop or its equivalent. Part-time students not admitted to the SBA program (a.k.a. transient students) must meet the laptop usage requirement of the course in which they are enrolled. Part-time students who elect to use non-standard (i.e. non-UD purchased) laptops are responsible for the maintenance, compatibility, and usability of their laptops in every class in their curricula.
Returning Students

A qualified student who returns to the School of Business Administration after an absence of one calendar year or longer may be readmitted to the School of Business Administration according to the University of Dayton requirements which are applied to transfer students from other universities and colleges. (For more information, visit Section III, Admission.) These students will be required to satisfy the program requirements which are current at the time of their readmission to the School of Business Administration. Part-time students (those who carry fewer than 12 semester hours) who are readmitted after an absence of two or more years will be required to satisfy the program requirements which are current at the time of readmission to the School of Business Administration.
Requirements for the Baccalaureate Degree

The School of Business Administration programs lead to the degree of Bachelor of Science in Business Administration upon satisfactory completion of the following requirements:

1. The candidate must successfully complete the first-and second-year business administration program, which is designed to give a wide and liberal education to support a broader comprehension of the fields of business administration and economics. All students in the School of Business Administration must also complete a common block of courses known as the SBA core business requirements.

2. The candidate must earn a cumulative grade point average of at least 2.0 in the total semester hours required for the degree and at least a 2.0 for the total semester hours required for each major. The 2.00 requirement in a major is calculated using all 300-400 level courses attempted in the student's major; courses numbered at the 100 or 200 level are not included in this calculation.

3. Each candidate must complete at least 54 upper-level (300 or 400 level) semester hours, with a minimum of 36 semester hours in 300-400-level courses in the School of Business Administration. Of these, 18 semester hours or more must be in one of the academic majors.

4. Candidates majoring in accounting, business economics, finance, leadership, entrepreneurship, international business, or marketing must complete a minimum of 123 semester hours. A major in management information systems or operations management requires 124 semester hours.

5. The candidate's final 30 semester hours must be earned at the University of Dayton.

6. The School of Business Administration will not accept any business or business-related courses more than ten years old.

7. A maximum of two semester hours of physical education activities courses (HPS/HSS 130) may be applied toward the minimum graduation requirement.

8. The candidate has the responsibility of meeting degree requirements in business administration. Therefore, the student should be thoroughly familiar with the degree requirements.

9. The candidate must complete UD's general and graduation competency requirements.

10. The candidate must fulfill UD's thematic cluster requirements.
Grading Option

All students in the School of Business Administration must register under Grade Option 1 for all courses required to fulfill degree requirements. Pass/Fail (Grading Option 2) will not count towards degree requirements.

Cooperative education and internship experience courses are an exception and may be taken under Grade Option 2. However, these courses may be used for general elective credit only.
Internship

Internship is work experience offered (possibly for general elective academic credit) in each of the departments in the School of Business Administration (SBA). The intent is to provide practical experience in implementing the theory and skills learned in the classroom in work associated with the student's academic concentration. It is an option open to all undergraduate students pursuing four-year programs once they have fulfilled the following prerequisites:

1. Students must have completed a minimum of 45 semester hours prior to the internship experience.
2. A minimum cumulative GPA of 2.0 is required to participate in an internship. However, individual departments may require a higher minimum cumulative GPA, and students should inquire in the department of their major if such a requirement exists. Departments may alter the cumulative GPA requirement at any time, and any change in the minimum GPA requirement supersedes the minimum GPA printed in the bulletin.
3. Students can earn credit for internships only through the department of their major. Approval from the department chairperson or the chairperson's designee is a prerequisite for earning general elective credit for participation in the program. Individual departments may require other prerequisite courses prior to the internship experience. Students are responsible for checking with the department of their major to determine the prerequisites unique to the department.

Positions offered to students may be either compensatory or noncompensatory. The intent of the internship is to be beneficial to both the students and the participating organizations. Assistance in finding internships is available from the SBA, Department Chairs and faculty, and Career Services. Students are all encouraged to find positions themselves, and these are acceptable if the employers agree to the conditions for participating organizations.

Credits earned in internship are applied as general electives. The maximum number of semester hours that may be earned over the full four-year degree program is six, although individual department requirements may differ. Interested students should see the department chairperson or internship coordinator for further information as soon as they are eligible for participation.
Cooperative Education

The School of Business Administration participates in the University of Dayton Cooperative Education Program, which is an optional program often consisting of full-time, on-campus study alternating with terms of full-time, off-campus work. For a fuller explanation of the program, visit Cooperative Education in Section X.

Required prerequisites and the approvals necessary to earn general elective credit are the same as those for internships. Interested students should see the department chairperson or internship coordinator for their major, in addition to career services, to obtain additional information.
Study Abroad Programs

Students in the School of Business Administration (SBA) are eligible to participate in summer programs in Europe and Asia when available. Students register for the University of Dayton’s summer term and take 12 to 15 hours of courses taught abroad primarily by SBA faculty members.

The twelve-week European program is divided into two sessions, with a week break between sessions. In 2004, students were able to spend the first session in either Augsburg, Germany or Barcelona, Spain. In the second session, students chose between Augsburg and Rome, Italy.

The Asia Study Abroad Program is a semester-long living and learning experience based in Bangkok, Thailand. In addition to exploring Thailand, students participate in structured class-related excursions to Vietnam, Cambodia, Burma, Japan, Malaysia, Singapore, Tibet and China.

Students may attend foreign universities and take classes during normal fall or spring terms, in addition to the formalized summer experiences. Students may do this independently or take advantage of one of the exchange agreements that the SBA has with several accredited business schools worldwide. Examples include accredited universities in Mikkeli, Finland; Angers, Lille or Nice, France; and San Sebastian, Spain.
School of Education and Allied Professions

Thomas J. Lasley, Dean
C. Daniel Raisch, Associate Dean
H. Roberta Weaver, Associate Dean
Patricia M. Hart, Assistant Dean

In conformity with the University's mission, the School of Education and Allied Professions (SOEAP) endeavors to educate distinctive graduates who will effectively and efficiently utilize the highest quality of learning and scholarship and engage people in building strong learning communities and in developing collaborative, dynamic partnerships. The SOEAP programs focus on distinctive Catholic and Marianist educational and intellectual traditions which enable graduates to become effective practitioners in the field of professional education and the allied professions. The theme for the SOEAP is "Building Learning Communities Through Critical Reflection".

As a community of learners, collaboration and critical reflection is fostered and encouraged through efforts to integrate and connect knowledge, skills and dispositions gained from various courses in the SOEAP and the liberal arts, including the general education curriculum. This acquaints the students with the major areas of knowledge and provides the basis for their specific program of study. The SOEAP is particularly noted for the professional development of teachers and allied professionals who are able to enhance the quality of life experiences for both children and adults. In relation to teaching, the school is committed to quality programs which address the professional preparation of teachers for the early, middle, and secondary schools and intervention specialists. In relation to the allied professions, the school is committed to quality programs which address the professional preparation for specialists in physical education, exercise science and fitness management, sport management, health information and food and nutrition. Provisions for professional competence are made through (1) comprehensive study of the various fields, (2) thorough study of the professional foundations common to all of the program areas, (3) specialized study of the principles underlying a particular area of study, and (4) appropriate field-based experiences.

Students in the SOEAP should appraise their commitment to teaching and the allied professions according to their development in specific knowledge, skills, and dispositions. Students will have opportunities to apply theory to practice in planned and supervised field-based experiences. Their programs of study will include reflective practice which will incorporate inquiry leading to self improvement.

The SOEAP is committed to education for the improvement of others and society; to the principles that refer to a shared common humanity, to the dignity of the person and the use of reason and cooperation in seeking social justice; to the democratic principles; to a humanistic approach to learning; and to the Marianist traditions in education.

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Degree Requirements

Following this general introductory section, this chapter includes specific four-year course requirements for the various programs in Health and Sport Science and in Teacher Education. The programs for licensure in early childhood, middle childhood, adolescent to young adult, intervention specialist and multi-age (art, foreign language, physical education) teaching are all included. All of these programs lead to the Bachelor of Science (B.S.) degree.

The Department of Teacher Education has an extensive benchmarks (requirements for starting and/or continuing a program) process for students in all four years of the program. Before registering for the second year of courses, all students in teacher licensure programs should have taken and passed all three sections of the Praxis I exams. At the end of their first year, all students are required to apply for formal admission to the particular licensure program which they choose to study. The student's application is reviewed by a departmental committee to determine the extent to which their academic work and other benchmark accomplishments indicate the likelihood of their success as professional teachers. Admission requires a GPA of 2.5 overall, in professional education courses and in the various teaching field(s), the passing of Praxis I, along with other Benchmark expectations.

The responsibility for meeting the University and state requirements rests with the student. The student is advised to study the course requirements and to keep accurate count of the semester hours applicable to graduation. Students planning to teach in states other than Ohio should fulfill University requirements as well as those of the state in which they intend to teach.

The requirements for graduation and teacher licensure are included below.

1. The student would demonstrate abilities in content and pedagogical knowledge, dispositions and skills that would be indicative of professional success. All students enrolled in programs leading to State of Ohio licensure must verify that they are of "good moral character," fingerprinted, and pass a background check. Pursuant to SOEAP policy, these students must complete the appropriate forms provided by the Office of the Dean. (Consult the SOEAP dean's office for further information.)

2. The student would successfully complete a variety of planned and supervised clinical experiences essential to the professional development of beginning teachers.

3. The student would successfully complete a minimum of 124 semester hours in approved courses; some programs may require more than 124 semester hours.

4. The student would demonstrate a cumulative grade point average of at least 2.5, overall, in the professional education courses and in each teaching field in which licensure is sought. The professional education courses, the content courses in the teaching fields, and the General Education courses must be taken under grading Option 1.

5. The student would successfully complete the following general professional education sequence of courses:
   A. Personal and Professional Development of the Teacher
   B. Child and/or Adolescent Development
   C. Teaching and Learning Theories
   D. Inclusive Education
   E. Special Methods
F. Philosophy and History of Education
G. Student Teaching

With the possible exception of A, B, and C, all courses in the above sequence must be taken at the University of Dayton. Transfer credits from other institutions normally are not accepted in substitution for courses D through F, and are never accepted for student teaching.

6. The student would complete the University requirements in General Education and pass the Basic Skills competencies in reading and writing, oral communication, quantitative reasoning, and information literacy. Students should see Section V, Academic Regulations and consult with their advisors for more information.

7. The student must have a passing score on all three sections of the Praxis I (math, reading, and writing), which must be taken by the end of the first term of the first year of study.

8. The student must have a passing score on several Praxis II tests, which are required by Ohio's State Department of Education for eligibility for the provisional license to teach. Students should consult the dean's office for the specific tests appropriate for their programs, and the dates on which the examinations will be administered.

1 Each program has particular methods courses along with other specialized education courses; see specific programs.
Advising and Scheduling

Upon the completion of the first year, all first-year education students are assigned faculty advisors from the program in which they have been accepted. Scheduling for courses is completed through the department advisors, Dean's Office and EDT 109 instructors.
University Policies

Students are reminded to refer to pertinent sections of this Bulletin and the Student Handbook for all policies to which they are subject.
Undergraduate Academic Policies

1. It is the policy of the Department of Teacher Education that the candidates for undergraduate licensure are placed in schools in the Miami Valley area for student teaching experiences. Student teaching is the capstone experience for the preparation programs. The University needs to continue supervision and contact, to maintain the consistency and the quality of the licensure programs.

2. It is the policy of the Department of Teacher Education that an education course taken as an independent study cannot be applied toward teacher licensure.

3. It is the policy of the Department of Teacher Education that if a student misses more than 13% of the regularly scheduled class time and/or required field experience (this would include absences and tardiness) because of unexcused absences, the student will receive a failing grade and must re-take the course in a subsequent semester.

4. It is the policy of the Department of Teacher Education that if a student receives a grade of D or lower in an EDT course, the student will be required to re-take the course. After the student receives a grade of C- or higher in the course, the student may continue in their regular program of study. The student may be allowed to take one EDT course simultaneously while re-taking the course, provided the student has an overall GPA of 2.5 and has passed all three sections of PRAXIS I.

5. It is the policy of the Department of Teacher Education that independent study is not available for regularly scheduled undergraduate courses.

6. It is the policy of the Department of Teacher Education to collect and interpret data on professional behavior. The Department has adopted the following "flags" in order to track student performance and identify problems as they arise:
   - Feedback which includes a "not met" or "one" in a competency on the field observation forms.
   - A "C-" in an EDT course.
   - Poor evaluation from a course instructor.
   - Inappropriate attendance, participation and/or professional disposition on campus or in the field, as determined by the program faculty. This includes exceeding excused or unexcused absences of 13%.

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Student Teaching

Student teaching, which is full-time supervised teaching with qualified mentor teachers in P-12 schools, involves full-day sessions for approximately one semester. During the semester of student teaching, the student is advised to not register for any other courses, but as an exception will be allowed to take at most three semester hours of additional course work. These additional semester hours must be scheduled outside the normal school times in order to keep the student-teaching experience intact for the full school day. It is advised that the student make financial arrangements so that they are prepared to discontinue part-time employment during this semester. The faculty members in the Department of Teacher Education screen each candidate who applies for student teaching on the basis of the following factors: (1) a grade-point average in professional education, concentration content course work, and overall course work of at least 2.5, (2) completion of "Good Moral Character" form, (3) passing a background check, (4) successful completion of the prerequisite courses and field experiences, and (5) successful completion of the required standardized testing.

Prerequisites for candidacy for student teaching are (1) official enrollment in a teacher education program at the university, (2) completion of the minimum residence requirement of thirty semester hours inclusive of student teaching, (3) formal application for student teaching submitted at the beginning of the term in advance of student teaching. (Application forms may be secured from the department offices or at http://soeap.udayton.edu/support/ed_place/index.htm.)

A student-teaching seminar will be held weekly throughout the term. Once students have been approved and placed for student teaching, they may not withdraw from the program except with the approval of the department chairperson. A student who withdraws without this approval forfeits future placement in student teaching.
Licensure and Securing a Teaching Position

Students who qualify for teacher licensure through the SOEAP are aided in securing teaching positions by the University of Dayton Career Services and are supported by faculty and the Educational Field Office. Placement requires cooperation from the candidate in uploading the necessary information and in obtaining letters of recommendation. Dates for interviews with prospective employers arranged by the University of Dayton Career Services are announced in advance.
Teacher Licensure

The SOEAP programs are approved by Ohio's State Department of Education and accredited by the National Council for Accreditation of Teacher Education (NCATE). Ordinarily, Ohio licenses are recognized by other states. Students are encouraged to check licensure requirements for states in which they are seeking positions.

In addition to preparing properly licensed early childhood, middle childhood, adolescent to young adult and intervention specialist teachers, the SOEAP also enables students to qualify for multi-age (p-12) licensures in art, foreign language, physical education, and music education.
Baccalaureate Programs

The SOEAP offers the following programs leading to the baccalaureate degree. (These programs are outlined later in this chapter under code designations-for example, EDT = Teacher Education, HSS = Health and Sports Science, VAR = Visual Arts.) The programs are as follows:

Program BSE.ECE: Early Childhood Education
Program BSE.EMS: Middle Childhood Education
Program EDP: Physical Education Pre K-12
           See HSS
Program E6: Multi-age, grades K-12
           BSE.EAR: Visual Art
           See EDT, VAR
           BSE.ELA: Foreign Language
           BSE.ERL: Special Catholic Religious Studies Education
Program BSE.EYA: Adolescence to Young Adult
Program EES: Exercise Science and Fitness Management, Option 1
           EES: Exercise Science and Fitness Management, Option 2
           EPT: Exercise Science and Pre-Physical Therapy
           See HSS
Program ESM: Sport Management
           See HSS
Program BSE.EMM: Intervention Specialist (Special Education)
Program E11A: Teacher Licensure for students in the College of Arts and Sciences
           See EDT and Section VI.
Program EHA: Food and Nutrition, Option 1 - Didactic Program in Dietetics
Program EHN: Nutrition and Fitness, Option 2 - Nutrition

NOTE: All licensure programs and teaching fields described in this chapter have been approved by the Ohio Department of Education under the licensure standards effective July 1, 1998.
Licensure for Students in Arts and Sciences

Program E11A: B.A. or B.S. with Teacher Licensure

Students in the College of Arts and Sciences may enroll in the Department of Teacher Education's Adolescence to Young Adult Education Program without transferring to the School of Education and Allied Professions. For requirements in professional education courses and in teaching fields consult the Arts and Sciences dean's office.

Enrollment, continuation and successful completion in this program (E11A for students matriculating in the College of Arts and Sciences) is subject to the same admission requirements, advising, maintenance of a unified system of records, screening, and other professional expectations of students in the School of Education and Allied Professions working toward the B.S. in Education. These include passing all three sections of Praxis I, maintaining an overall average of 2.5 in the content area and in professional education courses, completing field-based experiences in the schools, passing a background check, a semester of student teaching and taking the comprehensive Praxis II exams.

In order to finish in four years, a student in the College of Arts and Sciences will need to process an application for admission to the Adolescence to Young Adult Education Program no later than the third semester and begin the professional education sequence. Failure to enroll on time may necessitate going beyond the normal four years in order to qualify for teacher licensure and graduation. The requirements for the College of Arts and Sciences and those of the School of Education and Allied Professions must be completed before any degree is granted.

When the proper course requirements have been completed, the student may register for student teaching, upon approval of the application for student teaching. Applications are available at http://soeap.udayton.edu/support/ed_place/form5.htm and must be submitted to the Educational Field Office at the beginning of the term prior to the term in which student teaching will take place.

When all the requirements for teacher licensure are completed, the student should make application for the standard State Teaching Provisional License through the recommending officer of the School of Education and Allied Professions, in the dean's office.
The SOEAP offers graduate programs leading to the degree Master of Science in Education and Allied Professions. These programs are designed to prepare teachers in the areas of adolescents and young adults, middle childhood, early childhood, multi-age in art, music, physical education, foreign language and intervention specialists, as well as school counselors, school psychologists, school social workers, social agency counselors, college student personnel professionals and school administrators. The degrees Educational Specialist and Doctor of Philosophy in Educational Leadership are also offered. For people who have bachelor degrees and are interested in becoming licensed teachers, the Department of Teacher Education offers graduate programs leading to various licensures. For in-service teachers who wish to obtain licensure in other areas, the Department of Teacher Education offers a variety of programs.
School of Engineering

Joseph E. Saliba, Dean
Donald L. Moon, Associate Dean of Engineering
Riad Alakkad, Assistant Dean for Undergraduate Advising and Retention
John Weber, Assistant Dean for Recruitment and Continuous Improvement
Antionette Letavec, Assistant to the Dean

Our Vision

We will be national leaders in creating knowledge to serve society and in wholly educating highly effective professionals through a sound foundation in engineering and technology and experience in the Marianist tradition of moral integrity, strong community, and service above self.

Our Mission

The School of Engineering builds on a strong Marianist campus community, excellent collaborative partnerships with regional industry and government, outstanding faculty and staff, and state-of-the-art facilities to foster up-to-date and forward-looking inquiry and learning that provides wholly educated graduates and outstanding service to society.

Our Purpose

The School of Engineering has as its purpose the preparation of men and women for professional careers in engineering and in technology so that they may assume responsible positions of a technical nature in business, industry, education, and government. Of primary concern is the development of professional competencies and philosophies within the various engineering and technology disciplines, as well as providing a broad view of the technical and social problems that confront society. Additionally, all School of Engineering programs provide excellent background for other career areas.

As an educational unit of a private university, the School of Engineering strongly emphasizes the advising of students so that they may achieve their educational objectives within the engineering program. First-year students are advised by an advising team. At the end of the second semester, each student is assigned a faculty advisor in his/her program. Academic advising begins before the students begin their formal course work and continues as they progress toward their objectives.

The broader responsibilities of the engineering profession demand that the professional education of an engineer include a significant component of humanities, ethics, and social science studies so that the student will become aware of the urgent problems of society and develop a deeper appreciation of the cultural achievements of humanity. Additionally, such studies provide the proper framework to ensure that scientific discoveries and developments by engineers may result in the true advancement of the human race.
Optional Cooperative Education

Cooperative education offers the student the opportunity to put classroom work into practical use while still in school, resulting in early career identification and greater motivation as well as providing a source of funds. All students majoring in engineering and engineering technology may participate in the cooperative education program. To be eligible, students must have completed three semesters and have a cumulative grade-point average of not less than 2.3. Those applying for the program will be accepted on the basis of grade-point average, motivation, and attitude. The number of students placed depends on the availability of jobs. For more information, visit Cooperative Education in Section X.
Undergraduate Engineering Programs

The engineering program in each of the fields of chemical, civil, computer, electrical, and mechanical engineering is designed to lead to a bachelor's degree in a four-year period. While students pursue curricula they themselves have chosen according to their fields of interest, they all take certain core courses in mathematics, chemistry, physics, English, and engineering fundamentals. All of the programs permit additional specialization (as an overload) in 19 minors and in two concentrations in areas such as aerospace engineering, computer engineering, engineering mechanics, computer systems, structures, and industrial engineering in the School of Engineering and in other areas such as music, languages, and political science in other units of the University. Although emphasis is on fundamental theories, continued attention is paid to the solution of practical problems which the student will encounter in the practice of engineering.

The programs in chemical engineering, civil engineering, computer engineering, electrical engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410) 347-7700.

The programs in computer, electronic, industrial, manufacturing, and mechanical engineering technology are accredited by the Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410) 347-7700.
Transfer Students

The engineering programs welcome transfer students from both community and senior colleges and work closely with many schools to facilitate transfers from pre-engineering programs. Students may complete the first two years of study in other accredited institutions and transfer to the University of Dayton with little or no loss of credit provided that they have followed programs similar to those prescribed by the University of Dayton School of Engineering.

The School of Engineering has dual degree arrangements as well as curriculum agreements with Sinclair Community College and Edison State Community College.

The Bulletin
AUGUST 2006 - UNDERGRADUATE ISSUE
Minors in Engineering

The student majoring in chemical, civil, computer, electrical, or mechanical engineering may choose a minor area of technical study. The minors program in the School of Engineering provides an opportunity to specialize in a particular technical sub-area while still pursuing a major program of study in one of the traditional and well recognized engineering disciplines. The minors program was designed in response to the needs of industry and government and to the educational needs and career objectives of students. Election of the minor is optional; it may require additional courses for completion.

The minor is defined as at least 12 semester hours of work. It can be composed of any number of 1- to 4-semester-hour courses selected from the approved list of minor areas of study, which currently include the following:

- Aerospace Engineering
- Bioengineering
- Chemical Processing
- Composite Materials Engineering
- Computer Systems
- Design and Manufacturing Engineering
- Dynamic Analysis of Mechanical Systems
- Energy Conversion
- Engineering Management
- Engineering Mechanics
- Environmental Engineering
- Materials Engineering
- Mechanics of Engineering Systems
- Operations Engineering
- Signals and Systems
- Structures
- Thermal Engineering
- Transportation Engineering
- Water Resources Engineering

A 12 semester hour concentration in electro-optics is available to electrical and computer engineering undergraduates. A 16 semester hour concentration in aerospace engineering is also available to mechanical engineering students. Additional minors from outside the School of Engineering are available in many subject areas.

Students, in consultation with their faculty advisors, normally select the minor or concentration in the second semester of their sophomore year. The minor or concentration is designated on the student's transcript.
Engineering First-Year Requirements

Students who are recent high school graduates or who have earned fewer than 15 semester hours of collegiate credit are classified as first-year students and must meet common engineering program requirements. Such credit requirements may be met in a number of ways, including (1) advanced college-level course work at the University of Dayton or other collegiate institutions, (2) advanced placement examinations, (3) departmental examinations during the first term, or (4) taking the prescribed courses as part of the first year.
Degree Requirements

A student enrolls in the curriculum prescribed for the academic year in which he or she is registered as a first-year student at the University of Dayton or elsewhere. If for any reason it is necessary or desirable to change to a subsequently established curriculum, the student must meet all of the requirements of the new curriculum.

The degrees Bachelor of Chemical, Civil, Electrical, or Mechanical Engineering, Bachelor of Science in Computer Engineering, and Bachelor of Science in Engineering Technology are conferred at commencement if the general requirements enumerated in Section V, Academic Regulations have been fulfilled as well as those listed below:

1. All prescribed courses outlined in the respective curricula must have been passed with grades of D or better and the student must obtain a minimum grade point average of 2.000 for the prescribed courses. Although courses may be scheduled in terms other than as listed, all prerequisites and corequisites must be met.
2. All students in the School of Engineering must register under Grade Option 1 for all courses in engineering, mathematics, and science except those offered only under Grade Option 2.
3. The cumulative grade-point average in all courses which have an engineering prefix must be at least 2.0 (C average).
4. The student must have attended the School of Engineering at the University of Dayton during their senior year, carrying at least 30 semester hours.

The semester hours of credit required for graduation in each engineering curriculum administered by the School of Engineering are as follows:

- Bachelor of Chemical Engineering: 137
- Bachelor of Civil Engineering: 138
- Bachelor of Electrical Engineering: 136
- Bachelor of Mechanical Engineering: 133
- Bachelor of Science in Computer Engineering: 136

The semester hours of credit required for graduation in each engineering technology curriculum administered by the School of Engineering are as follows:

- Bachelor of Science in Engineering Technology:
  - Computer Engineering Technology Major: 130
  - Electronic Engineering Technology Major: 129
  - Industrial Engineering Technology Major: 130
  - Manufacturing Engineering Technology Major: 130
  - Mechanical Engineering Technology Major: 130
5-Year Combined Bachelor's-Master's Engineering Program

The School of Engineering offers a combined 5-year program leading to both a bachelor's degree in a departmental major (chemical, civil, computer, electrical, or mechanical engineering) and a master's degree. Physics majors (College of Arts and Sciences) may also participate. The program is designed for the qualified student who wishes to pursue either greater specialization in a major area or to complement the undergraduate program with a related graduate-level concentration. Most students who select the program have received some advanced placement upon entry to engineering at the first-year level or take occasional summer courses.

The formal request for entrance into this program is made before the first semester of the student's junior year. Admission requirements include a minimum cumulative grade point average of 3.00 and permission from the chairperson of the department corresponding to the student's undergraduate major. Selection of the graduate (master's) program area is indicated below:

**Undergraduate Program**
- Chemical Engineering
  - Aerospace Engineering
  - Chemical Engineering
  - Engineering Management
  - Management Science
  - Materials Engineering
- Civil Engineering
  - Civil Engineering
  - Engineering Management
  - Management Science
  - Materials Engineering
- Computer Engineering
  - Electrical Engineering
  - Engineering Management
  - Management Science
  - Materials Engineering
- Electrical Engineering
  - Aerospace Engineering
  - Electrical Engineering
  - Electro-Optics
  - Engineering Management
  - Management Science
  - Materials Engineering
- Mechanical Engineering
  - Management Science
  - Materials Engineering
  - Mechanical Engineering
- Physics
  - Materials Engineering

The department chairperson and the graduate program director serve as an advisory committee to the student in establishing the 5-year combined program requirements. The first-year, sophomore, and junior years follow the curriculum of the student's selected bachelor's program.

A student who elects the 5-year combined program must satisfy both undergraduate and graduate degree requirements as to required cumulative grade point average for graduation. The graduate of the combined program will
receive a bachelor's degree in the undergraduate major (e.g., Bachelor of Mechanical Engineering) and a master's degree in the graduate area (e.g., Master of Science in Materials Engineering). A student in the 5-year combined program who chooses not to complete the program must complete all the undergraduate major program requirements to receive the bachelor's degree.

### 5-Year Bachelor's - Master's Program

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Year</td>
<td>1st Term 2nd Term</td>
</tr>
<tr>
<td>Undergraduate department major</td>
<td>11 11</td>
</tr>
<tr>
<td>Undergraduate department or University requirement or electives</td>
<td>3 3</td>
</tr>
<tr>
<td>Graduate major (graduate credit)</td>
<td>3 3</td>
</tr>
<tr>
<td>Total:</td>
<td>17 17</td>
</tr>
<tr>
<td>Fifth Year</td>
<td></td>
</tr>
<tr>
<td>Graduate major (including thesis or project)</td>
<td>12 12</td>
</tr>
</tbody>
</table>
Engineering Technology

The School of Engineering also offers a Bachelor of Science in Engineering Technology. The programs in which the degree is offered are computer engineering technology, electronic engineering technology, industrial engineering technology, manufacturing engineering technology and mechanical engineering technology. The engineering technologist is usually involved in the design, performance evaluation, service and sales of products, equipment, and manufacturing systems or the management of these activities. The management of process operations and plant facilities are also important career paths.

The engineering technology programs provide: (1) specialized technical courses that emphasize rational thinking and the application of engineering and scientific principles to the practical solution of technological problems; (2) courses in applied mathematics and science sufficient to support the technical courses and to prepare the student for future growth; and (3) education to prepare students to communicate intelligently and to take places in society as responsible, humane, complete professionals.

The University of Dayton engineering technology programs prepare graduates who:

- are competent and productive in the practice of both the technical and communication aspects of their profession;
- demonstrate ethical and professional standards of conduct;
- exhibit leadership qualities as appropriate for the practice of their profession;
- are involved in service activities that benefit their profession and their community; and
- are engaged in continuing professional development.

Transfer Students

The engineering technology programs welcome transfer students from associate degree programs in engineering technology who wish to pursue the Bachelor of Science in Engineering Technology. Graduates of two-year associate degree programs in engineering technology should normally expect to undertake at least two additional years of work for the bachelor's degree.

Minors in Engineering Technology

Students majoring in any engineering technology program may earn a minor in another engineering technology program by completing 12 approved semester hours of work in the second discipline. Courses already required in the student’s program may not be counted in the minor. The director of the program in which the minor is to be earned is responsible for approving the list of courses for the minor.

Minors in engineering technology are offered for students enrolled in majors in the College of Arts & Sciences, the School of Business Administration, and the School of Education and Allied Professions.

Accreditation

The programs in computer, electronic, industrial, manufacturing, and mechanical engineering technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410)
**Engineering Technology First-Year Requirements**

Students selecting any of the five engineering technology majors should take the courses prescribed for the first year as listed in the individual curricula in the Academic Information section of the Bulletin. Undeclared engineering technology students should follow the first-year schedule listed below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 137-138</td>
<td>Calculus I with Review</td>
<td>8</td>
</tr>
<tr>
<td>MCT 110L</td>
<td>Technical Drawing &amp; CAD</td>
<td>2</td>
</tr>
<tr>
<td>SET 153L</td>
<td>Technical Computation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHM 123-123L</td>
<td>General Chemistry with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101-102</td>
<td>College Composition I, II</td>
<td>6</td>
</tr>
<tr>
<td>or 114 or 198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REL 103</td>
<td>Introduction to Religion</td>
<td>3</td>
</tr>
<tr>
<td>PHL 103</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>The West and the World</td>
<td>3</td>
</tr>
<tr>
<td>SET 100</td>
<td>First-Year Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ECT 110</td>
<td>Electrical Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>SET 101</td>
<td>Enrichment Workshop</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total First-Year Requirements</strong></td>
<td></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>
Interdisciplinary, Experimental and Special Areas

Please select a subsection using the menu to the right.

- Affirmative Action Office
- Air Force Reserve Officers Training Corps (AFROTC)
- Center for International Programs
- Fitz Center for Leadership in Community
- Information Technology Facilities and Services
- Adult Degree Advancement Program (ADAP)
- Cooperative Education (COP)
- Core
- General Studies (GEN)
- The Center for Graduate Guidance and Post-Baccalaureate Scholarships
- Distance Learning Courses
- Education Abroad
- Institute for Pastoral Initiatives
- Interdisciplinary Studies
- Marian Library/International Marian Research Institute
- Office of Educational Services
- Prelaw
- Research Institute (UDRI)
- Reserve Officers Training Corps (ROTC)
- Women's Center
- University Honors Program
- John W. Berry, Sr., Scholars Program

X. Interdisciplinary, Experimental and Special Areas

XI. Directories
Affirmative Action Office

Air Force Reserve Officers Training Corps (AFROTC)

The Air Force Reserve Officers Training Corps (AFROTC) program is offered through the Department of Aerospace Studies at Wright State University. Students may enroll in Air Force ROTC courses through the consortium cross-registration procedures (contact the Registrar's Office to obtain a list of course numbers, scheduled class times and locations). For more information contact the Air Force ROTC Detachment located in Millett Hall, room 118, at Wright State University or phone (937) 775-2730 or e-mail, afrotc@wright.edu.
Center for International Programs

The Center for International Programs provides leadership, coordination, strategic planning, and administrative support for the internationalization of campus. In cooperation with other University departments and Dayton area organizations, the CIP operates programs and provides services which enhance intercultural education at the University of Dayton. Our areas include:

Education Abroad: University study abroad programs including Summer Study Abroad Programs are managed through the Office of Education Abroad. Additional resources are available through affiliate and exchange programs for semester and year-long study. The CIP works closely with other areas on campus, such as the Center for Social Concern and academic departments, to provide a comprehensive list of programs to interested students. Faculty and staff may also find support in developing and promoting educational trips abroad.

International Student and Scholar Services: The International Student Services staff assists international students and scholars with a wide variety of areas such as immigration issues, counseling, personal advising, social and extracurricular activities, and emergencies. The office also serves as a link between international students and the rest of the University and the surrounding community.

Intensive English Program: The University's English as a Second Language program develops students' English skills in preparation for an undergraduate or graduate program or the work place. Course offerings include grammar, reading and writing, listening and speaking, TOEFL preparation, and pronunciation.

International Learning Community: Undergraduate American students and international students can select to live on an international floor in one of our residence halls or apartment buildings on the University's campus. Residents live together and participate in activities that encourage intercultural communication and the building of relationships between national and international students.

Additionally, the Center for International Programs communicates with students, faculty, staff and the surrounding community to promote international activities on campus and in the area.
Fitz Center for Leadership in Community

The mission of the Fitz Center for Leadership in Community is to initiate and sustain partnerships with urban neighborhoods and larger communities for both comprehensive community building and as a context for connected learning and scholarship. The University of Dayton's vision is to become a national leader in educating community builders through participation in community building partnerships.

The Fitz Center builds on the University's and the Marianists' many years of experience through which we have linked resources to those of the Dayton community to solve regional problems, develop community leaders and build neighborhoods. The University has built collaborative relationships with dozens of neighborhoods and community nonprofit and government organizations and associations in efforts that have enriched the quality of life for thousands of citizens within Dayton and surrounding communities. These projects have also afforded meaningful service-learning opportunities to hundreds of students and dozens of faculty members annually.

The Fitz Center for Leadership in Community is built around four basic convictions that are generally shared by other university-based urban centers, independent urban research centers and a number of national and regional foundations that promote constructive change in communities. These four basic convictions represent new approaches to addressing societal needs.

- A different way of learning: Practical reasoning and experiential (service) learning
- A different way of seeing and understanding: The urban community as a social ecology of children, families, neighborhoods, and systems
- A different way of designing and implementing change: Comprehensive community building
- A different way of leading: Adaptive leadership through constructive conversation

These basic convictions guide our planning and program development. They also build on the extensive community experiences of the Fitz Center team.

The Fitz Center for Leadership in Community has four primary functions that are carried out by teams of students, faculty, and Fitz Center staff working in partnership with neighborhood and community leaders.

- Initiate and sustain partnerships. Relationships are the basis for building trust and provide a context for service learning.
- Develop communities of learning, scholarship, and practice. We do this by linking people around community visioning. We also provide workshops and symposia on community building, neighborhoods, university/community partnerships, and Catholic social teaching.
- Develop curricular innovations around leadership in community. Curricular innovations include contributions to undergraduate courses and graduate offerings in public administration.
- Build community capacity for constructive deliberation and change. Building community capacity is done through research and evaluation as well as facilitation of community deliberation.

The Fitz Center provides an interdisciplinary minor in family development within the College of Arts and Sciences. It also conducts research on a broad range of contemporary family and community issues and offers opportunities for the development of social science research skills through tutorials and participation...
in its ongoing research projects. It serves as a resource to local governmental, health, religious, educational, and social service agencies in developing solutions to the problems of families and the communities in which they live. The Fitz Center is committed to an integrated perspective on families and communities that draws on multiple disciplines. For more information, visit FDV in Academic Information.

Marianist Provincial Father William Ferree was recognized as a key spokesperson on the Catholic theory of social justice. In his honor, the Cincinnati Province of the Society of Mary pledged $1 million to endow the Ferree Professor of Social Justice in the Fitz Center for Leadership in Community. The Ferree Professor connects Catholic social teaching to regional community-building leadership issues.

The nature of the leadership challenges in the Dayton community requires adaptive learning and leadership across professional and community sectors. The University of Dayton has established a reputation as an effective community partner, especially with urban Dayton on difficult community challenges. The University of Dayton adds value with a Fitz Center that brokers and leads ongoing community building partnerships.
Information Technology Facilities and Services

As one of the nation's premier institutions for technology-enhanced learning, the University of Dayton views information technology as central to both the living and learning experiences of students. UD has one of the most distinctive wired campuses in the nation: residence halls, as well as the 25 city blocks of UD owned houses comprising the Student Neighborhood, are equipped with high-speed data connections for each student. The University also supports more than 950 wireless access points to provide wireless coverage in most areas on campus, including academic buildings. In addition, students have access to an array of on-campus computer labs and computer-equipped classrooms.

To leverage this high-performance computing environment, UD implemented the Student Computer Initiative in August 1999, which requires all incoming students to purchase a personal computer from the university. These notebook computers are preconfigured with software that supports learning, communication, and collaboration within and beyond the classroom. The Microsoft Office suite, Lotus Notes, and WebCT are three of the key applications that promote connectivity and productivity among learners across campus.

The technology infrastructure at UD includes a gigabit network backbone with over 50 servers. In addition to maintaining this robust infrastructure, UD also supports learning and collaboration through such operations as the Help Desk, IT Training, and e-Learning. Students at the University of Dayton are encouraged to become highly proficient in using the tools of the information age as they prepare for their chosen careers.
Adult Degree Advancement Program (ADAP)

Specifically designed for students 24 years of age and older who wish to attend college part-time, the University of Dayton Adult Degree Advancement Program (ADAP) allows you to complete your bachelor's degree at a pace that fits nicely with your lifestyle. Day and evening classes are available. Tuition for the ADAP students is very affordable, with cost per credit hour comparable to other adult degree programs.

ADAP students can select from one of six bachelor degree programs: Communication Management, Psychology, General Studies, Engineering Technology, ADA Didactic Program in Dietetics and Early Childhood Education. Information regarding Communication Management, Psychology, and General Studies can be obtained from Julie Mitchell in the College of Arts and Sciences, 229-2605. Information regarding the Engineering Technology program can be obtained from Scott Segalewitz in the Department of Engineering Technology, 229-4216. Information regarding the School of Education and Allied Professions programs can be obtained from Shauna Adams in the Department of Teacher Education, 229-3372, or Patricia Dolan in the Department of Health and Sport Science, 229-4203.
Cooperative Education (COP)

Cooperative education is an optional plan of full-time, on-campus study alternating with terms of full-time, off-campus paid work experience in industry, business or government. Among the expected benefits to the student are on-the-job experience, career identification, financial assistance, and professional development. The work terms average seventeen weeks. Three full work terms are considered minimum for the program. Students are encouraged to begin their first co-op work experience after their third or fourth semester of academic study.

Qualifications for entering and remaining in cooperative education are (1) to be admitted to the University as a full-time undergraduate student with the intention of graduating; (2) to have a declared major in one of the academic departments participating in the co-op program; (3) to maintain good academic standing as specified by the particular academic department; (4) to engage in full-time study and make progress toward the degree during each study term following each full-time work training term. Placement in a job is not guaranteed since it depends on the student's qualifications and on the availability of jobs.

Cooperative education is currently available as an option to full-time undergraduate majors in the following:

**College of Arts and Sciences:** Chemistry (CHM), Computer Science (CPS), Computer Information Systems (CIS), Mathematics (MTH), Biology (BIO), Physics (PHY), Physics-Computer Science (PCS), Psychology (PSY), Environmental Biology (EVB), Communication (CMM), English (ENG), and Visual Communication Design (VCD).

**School of Business Administration:** All majors are eligible to apply.

**School of Engineering:** All engineering and engineering technology majors are eligible to apply.

If the cooperative education option becomes available in other majors, notice will be released through the admission counseling staff of the University.

Incoming first-year students or transfer students interested in cooperative education should attend the Career Services presentation during the new student orientation week in August. Incoming sophomore, junior level or transfer students interested in cooperative education should attend one of the seminars held in September and January of each year. After each Co-op New Student Seminar, such students may begin the process of entering the program, which includes registering through the Hire a Flyer network and having an initial interview with one of the Assistant Directors. Those who start as first-year students at the University are eligible for placement after completing three terms of full-time study on campus. Transfer students, whether from two-year or four-year institutions, spend one full-time study term on campus after transferring before becoming eligible for the first work term.

Further information on the cooperative education program may be obtained by writing or calling Career Services, University of Dayton, Dayton, Ohio 45469-1110; telephone (937) 229-2064.
The University of Dayton's Core Program offers an innovative, interdisciplinary curriculum program consisting of a sequence of courses that fulfill many of the University's General Education Requirements. These courses address a common theme, "Human Values in a Pluralistic Culture," and are carefully coordinated with one another so that students experience the integrated character of the liberal arts. Extra-curricular speakers, arts events, and other activities related to course content are an important part of the program.

Core accepts approximately 150 students each year, representing all of the University's four undergraduate schools -- the College of Arts and Sciences, the School of Business Administration, the School of Education and Allied Professions, and the School of Engineering. All entering first-year students are invited to apply; students in some majors in the College of Arts and Sciences are enrolled automatically. Core is designed to deepen the learning experience of any interested University of Dayton student. While Core is not an accelerated or honors program, students can earn credit toward the Honors Program with Core courses.
General Studies (GEN)

The Bachelor of General Studies program permits students to pursue a non-traditional degree outside of any departmental major. Students can utilize the academic resources of the University to meet their individual, educational needs. For more information, visit Section VI, College of Arts and Sciences.
The Center for Graduate Guidance and Post-Baccalaureate Scholarships

The Center for Graduate Guidance and Post-Baccalaureate Scholarships assists undergraduate students and their faculty mentors in preparation of superior graduate and professional school applications (with the exceptions of medicine and law). The Center also serves as the campus representative for prestigious national and international post-baccalaureate scholarship competitions (e.g., Rhodes, Marshall, Fulbright). Providing information, advising expertise, and university-wide coordination of scholarship applications, the Center is an essential resource for academically aspiring undergraduate students.
Distance Learning Courses

The University of Dayton offers a select number of distance learning courses that can be taken as requirements for a major, a minor, or as electives. Unless otherwise stated, these are offered by University of Dayton academic departments that deliver undergraduate programs and are fully-accredited. The choices of distance learning courses available each semester varies, but is listed in the course composite for that semester and also at http://learn.udayton.edu. Selection of courses should be made by students in consultation with their academic advisor. Commonly students complete distance learning courses during the summer, to help accrue academic credit while living and working from home. Details about the courses should be sought from the academic department offering the course and the instructor of that course. In general most of these courses require Internet connectivity and utilize a number of online learning methods. Students should check what the requirements for each distance learning course are, how it relates to their major, and when and how the course begins. For additional information about UD's distance learning courses and programs, and how to be successful in the online learning environment, visit http://learn.udayton.edu
Education Abroad

Summer Study Abroad Program

The Summer Study Abroad Program through the Center for International Programs is designed to meet the academic requirements of current UD students enrolled in any discipline. The courses allow students to integrate classroom knowledge with international experiences. The program is a unique study and travel experience. Students may choose from seven to ten sites during the months of May, June and July, with students spending approximately four-and-a-half weeks at each program site. In the past, sites have included fascinating cities such as Berlin, Dublin, Florence, London, Madrid, Munich, Paris, Rome, St. Petersburg and Vienna.

Courses from a variety of disciplines in the humanities, social sciences, biology and engineering are conducted by University of Dayton professors. Courses utilize on-site resources to enhance the learning experience and generally include a one-credit, on-site orientation class. Students who choose to study at two sites could earn up to a full semester of credits. Contact the programs director in the Center for International Programs for more information.

Language - Summer Programs

For students who wish to develop their spoken and written foreign language skills, the University offers intensive study and immersion programs in Canada, Chile, Germany and Spain through the Department of Languages. University of Dayton professors design the courses to incorporate contemporary use of the language and explore the culture, government and history of the city and nation in which they are teaching.

To participate, students must be 18 years old and have some background in the language appropriate for the country they will be visiting. For more information, contact the Department of Languages.

Exchange programs

UD participates in exchange agreements with several overseas institutions. Tuition costs for these exchange programs are the same as regular UD tuition. In addition to tuition, students are responsible for their room and board in the host country, international travel and personal expenses. Most financial aid (including institutional scholarships and grants) applies to exchange programs. The following programs are administered by the Center for International Programs.

France: Depending on their degree of language ability, students may choose from two exchange programs with universities in France. An agreement with the Ecole Superieure des Sciences Commerciales d'Angers offers a unique spring semester program in European Affairs designed to give students a broad understanding of the business environment in the European Union. Course work is in English.

The exchange program with the Institut Catholique de Paris provides students an opportunity to study French language and culture classes as part of a special program designed for students around the world who are studying French as a foreign language.

Germany: An agreement with the Universitat Augsburg allows students with a high degree of German proficiency to spend a semester in Augsburg, about one hour from Munich. Students select from a wide variety of offerings in business,
Morocco: Students interested in spending a semester at the crossroads of Eastern, European and African cultures are welcome to attend AI Akhawayn University in Ifrane for one or two semesters. A private university with classes taught in English, AI Akhawayn offers course work in business, engineering, international studies, and Arabic, as well as traditional offerings in the social sciences and humanities.

Affiliation Agreements

UD students can study abroad in a variety of countries through affiliation agreements between UD and study abroad organizations or overseas universities. Tuition for affiliate programs varies by program. In addition to tuition, students are responsible for room and board in the host country, international travel and personal expenses. Aid for affiliated programs is limited to federal loans and grants. Through these affiliate programs, UD students can study in Argentina, Australia, Austria, China, Costa Rica, the Czech Republic, France, Hungary, Ireland, Italy, Mexico, Poland, Russia, South Africa, Spain, and the United Kingdom.

Service Opportunities Abroad

The Center for Social Concern offers opportunities for students to combine service-learning with their education abroad experience. The summer cultural immersion programs introduce students to the country's way of life through job placements, interaction with host families and travel through the country. Past destinations have included India, Cameroon, and Guatemala. The Center for Social Concern also coordinates week-long service programs during the University's spring break.

Education Abroad Support Services

The Center for International Programs guides students pursuing an educational experience abroad. Whether the student wishes to attend a program through the University of Dayton or through another institution, our programs director assists with the application process and prepares each student through a pre-departure orientation. The study abroad office also offers a re-entry program to students returning to the United States.
Institute for Pastoral Initiatives

The Institute for Pastoral Initiatives mobilizes the resources of the University of Dayton for partnerships with the church that create and implement innovative pastoral initiatives designed to meet the needs of the church and to articulate faith within the context of contemporary culture.

The Institute co-directs the unique Forum for Young Catechetical Leaders for students. The FORUM prepares students to be certified to become catechists in the Catholic Church. Students are introduced to outstanding catechetical leaders from around the country. Each semester students gather one Saturday a month for a full day of catechetical formation. This is the only such program in the USA in a Catholic University.

The Virtual Learning for Faith Formation -online courses- is coordinated by the Institute. Courses are offered for CEUs to support Catechist, Youth Ministry and Lay Ecclesial Leadership Formation.

The Institute's overall mission is to reflect the Catholic Marianist identity of the University through education, consultative services, networking, applied pastoral research and multimedia catechetical productions and publications.

The Institute is currently focusing on research and teaching in the following areas:

1. The Forum for Young Catechetical Leaders
2. The Virtual Learning Community for Faith Formation (Internet)
3. Lay Ecclesial Leadership Formation
4. Religion, Spirituality and Film
5. Pastoral Communications and Ministry
6. New Paradigms for Adult Faith Formation
7. Advocacy for Persons with Disabilities within the Church
Interdisciplinary Studies

All interdisciplinary and experimental studies at the University of Dayton must involve University students and faculty, must be commensurate with University resources or resources accessible to the University, and must further the recognized goals and purposes of the University. When these studies involve disciplines within the College of Arts and Sciences or one of the Schools, they are administered by or through the offices of the respective deans. When they are University-wide, i.e., inter-school, they are usually administered by the Office of the Provost.
Marian Library/International Marian Research Institute

The Marian Library/International Marian Research Institute is recognized as the world's largest and most comprehensive collection of printed materials on Mary and as one of the world's leading centers for Marian studies.

The Marian Library aims to further study and research and to promote well-founded devotion to Mary. The library comprises a Marian collection-theological treatises, books on shrines, sermon collections, anthologies of Marian poetry-and a complementary reference collection in scripture, patristics, systematic and spiritual theology, history, religious art and general bibliography.

Established in 1943 by the Marianists at the University of Dayton, the Marian Library now holds over 100,000 books, journals and pamphlets in some 50 languages, as well as extensive collections of clippings from newspapers and magazines, postcards, holy cards and Christmas cards. The non-print media collections include video and audio cassettes, statues, nativity sets, Marian art slides, postage stamps, Marian medals, and recordings of Marian music.

One of the principal missions of the Marian Library is to be an international center of research and study in Marian theology and on the role of Mary in Christian life. Founded in 1975 at the University of Dayton in affiliation with the Pontifical Theological Faculty Marianum in Rome, the academic program offers the doctorate (S.T.D.) and licentiate (S.T.L.) in sacred theology; the master's degree in religious studies with a Marian concentration (in conjunction with the Religious Studies Department of the University of Dayton), a certificate in Marian studies, and a guided studies program. The academic program is organized in a three-year cycle, with courses taught in three sessions: summer, fall and spring. It serves a diverse, international student population: laity, religious and clergy, both men and women. While most students seek advanced degrees in theology with specialization in mariology, others simply wish to satisfy a personal interest in Marian studies.

The Marian Library provides guided tours for groups, a video loan program, circulation of books, interlibrary loan, reference services, conferences, workshops, and art exhibits. Four publications originate at the Marian Library: Marian Library Studies, a scholarly annual of original research; Marian Studies, the journal of the Mariological Society of America; "The Marian Library Newsletter," a newsletter reporting on Marian topics of current interest, the center's activities and book reviews; and Art and Spirituality, a series of brief monographs with the purpose of promoting personal meditation through religious art.

The Marian Library has developed the Mary Page Internet website, http://www.udayton.edu/mary with news, extensive resources on Mary and related topics, and seasonal meditations.
Office of Educational Services

The Office of Educational Services provides assistance to Catholic schools, public school districts, and other educational providers to enable school personnel to reach policy decisions based on relevant knowledge and value commitments. "Relevant knowledge" includes financial studies, needs assessments, attitude surveys, enrollment projections, and other information necessary for making intelligent decisions about specific policies. "Value commitments" include consideration of educational aims and ethical questions inherent in policy decisions. One of the priorities of the office is service to Catholic schools. Another is its effort to act as a network to link those who share value concerns as they relate to educational policy-making. The office is located in, draws support from, and uses the resources of the School of Education and Allied Professions. For more information contact C. Daniel Raisch, Associate Dean, School of Education & Allied Professions at Dan.Raisch@notes.udayton.edu.
The Prelaw Program, designed to serve students from all areas of the University, provides undergraduates and alumni interested in law school with the opportunities to acquire the knowledge and skills necessary for a successful legal career. While students interested in careers in law should choose their undergraduate majors to match their interests and abilities, they should also contact the Prelaw Program as early in their undergraduate careers as possible so they can receive effective prelaw advice.

The Prelaw Program, with its twelve prelaw advisors, provides students with suggestions for courses that help develop skills needed for legal education, with information about the law school admission process, with aid in taking the Law School Admission Test (LSAT) including simulated tests and prep courses, and with help in completing law school applications. In addition, the Program supports the Political Science prelaw internship, allowing students to gain valuable experience working in an attorney's office, sponsors both the undergraduate chapter of Phi Alpha Delta and a mock trial program in which students compete locally, regionally, and nationally, and offers personalized advising based on the individual student's talents, interests, and goals.

For further information concerning the Prelaw Program at the University of Dayton, students should contact the Prelaw Program secretary in Alumni Hall, Room 124.
Research Institute (UDRI)

The University includes research as one of its stated purposes. In addition to faculty members in academic departments, a large staff of research scientists, engineers, and technicians conduct basic and applied research. Most of these activities are externally funded and are conducted in the laboratories of the University of Dayton Research Institute.

Several hundred students are employed in research programs in accord with the University's emphasis on integration of research and instruction. In addition to financial benefits, this research participation provides students with valuable experience and an exposure to issues at the forefront of contemporary science and engineering.
Reserve Officers Training Corps (ROTC)

The Department of Military Science offers the Army ROTC training program on campus, leading to a commission as a second lieutenant in the U.S. Army at the time of graduation. For more information, visit the Department of Military Science in Academic Information.

In coordination with Wright State University, the Department of Aerospace Studies offers the Air Force ROTC training program on campus and at Wright State University. Successful completion of the program provides the opportunity to become a commissioned officer in the United States Air Force. Refer to the Air Force Reserve Officers Training Corps (AFROTC), Chapter X.
Women's Center

The Women's Center at the University of Dayton (937-229-5390) is an educational space which serves to enhance the climate for women and men on campus. Located on the second floor of Alumni Hall, the Center advances the full and active participation of women students, staff and faculty who learn and work at the University of Dayton, while promoting campus and community conversations on the role of women in society and the world. The Center accomplishes this mission by facilitating and coordinating programs and initiatives which: promote the physical and psychological well being of women through education, support services and referral; provide an ongoing assessment of the campus climate for women; promote the active and full participation of UD women through service, education, mentoring, networking and advocacy; inculcate leadership skills; address gender-related topics; provide information to the campus community on women's issues; provide a place to build a community of scholarship to advance research on women and gender; create a welcoming and safe space for persons of different racial, social, gender, religious, and cultural backgrounds; call women and men of all faiths to explore and incorporate faith-based living into their everyday lives. Connected, distinctive, and community-building, the UD Women's Center strives to promote equality, understanding and mutual respect and to foster a strong educational community in which women and men are supported, challenged and prepared to learn, lead, and serve. For more information on the UD Women's Center, visit http://womenscenter.udayton.edu.
The University Honors Program provides curricular offerings, programming, and benefits to undergraduates who have superior academic records. Students earn the designation "University Honors student" in one of two ways. Entering first-year students with outstanding academic credentials are accepted into the Honors Program. Students who have achieved a 3.5 grade-point average and successfully completed a minimum number of Honors-designated courses at the end of their first or second years are also eligible to earn entrance into the University Honors Program. All University Honors students are expected to maintain at least a 3.5 grade-point average.

University Honors students are offered a wide selection of courses each term, ranging from special sections of General Education courses to senior-level seminars. While enrollment in Honors courses is not mandatory, in most instances first-year University Honors students will usually be placed in The Freshman Writing Seminar for Honors students (English 114), a semester course that substitutes for a two-semester English requirement for non-Honors students and that is enhanced by the annual Honors Author program. In addition, the University Honors Program sponsors numerous speakers, cultural events, and at least one symposium each year. University Honors students are also eligible to undertake, and potentially receive funding for, an Honors Thesis project. If they meet University Honors Program graduation requirements, students will earn an Honors Program-designated degree from the University of Dayton.

Special Honors housing is available for a limited number of University Honors students, and all University Honors students are guaranteed a place in U.D. housing during their undergraduate career. Upper-class University Honors students are eligible to apply for grants to support their professional and academic development, and all University Honors students receive special library privileges.

University Honors students completing at least sixty semester credit hours are eligible to apply to the Cordell W. Hull International Fellows Fund for University Honors students. Established in 1997-98, this fund awards grants to support international learning, leadership, and service projects.
The John W. Berry, Sr., Scholars Program is the University of Dayton's most selective and prestigious university-wide academic program. The Berry Scholars Program provides unique opportunities for academically gifted undergraduate students to develop their skills and talents in an intimate, supportive, collaborative, and leadership-oriented educational environment. Each year a maximum of 30 entering first-year students from the four undergraduate divisions-Arts and Sciences, Business Administration, Education, and Engineering-are selected from the pool of applicants. Participation in the program entitles these students to numerous benefits and privileges, including eligibility for the prestigious four-year, full-tuition John W. Berry, Sr., Scholarship. The Berry Scholars Program curriculum consists of a sequence of six required Scholars Seminars, an Honors Thesis project, and an optional Senior Colloquium in Faith and Reason. In most instances the seminars fulfill University requirements and fit well into each student's regular course of study. The Honors Thesis is a major research or service-learning project selected by the student in their junior year and completed, with the assistance of a faculty advisor or advisors, before graduation. Honors Thesis grants are available to support research-related expenses. Berry Scholars must also participate in the Leadership Institute, engage in required and supported international learning, and maintain a 3.5 or better grade-point average.
Directories

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http://bulletin.udayton.edu/content.ud?v=16&p=2362&c=2363
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Kerrie A. Cross

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Visual Arts

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Criminal Justice Studies
Dietetics
Electro-Optics
International Studies and Human Rights Studies
Prelaw
Premedical Programs
Theatre
Women's Studies

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American Studies
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Dietetics
Electro-Optics
International Studies and Human Rights Studies
Prelaw
Premedical Programs
Theatre
Women's Studies

Research

University Libraries

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Coordinator of Instruction
Coordinator of Reference
Head, Collection Management
Head, Library Information Technology
Head, Bibliographic Management
University Archivist
Director, Marian Library
Director, International Marian Research Institute (IMRI)

Directors

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Coordinator of Access Services
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Coordinator of Reference
Head, Collection Management
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Head, Bibliographic Management
University Archivist
Director, Marian Library
Director, International Marian Research Institute (IMRI)

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Kerrie A. Cross
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Johann G. Roten, S.M.
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice President for Research and Executive</td>
<td>Michael V. McCabe</td>
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<td>John E. Leland</td>
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<td>Michael P. Bouchard</td>
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<td>Division Head, Metals and Ceramics</td>
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<td>Division Head, Nonmetallic Materials</td>
<td>Allan S. Crasto</td>
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<td>Division Head, Structural Integrity</td>
<td>Robert J. Andrews</td>
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<tr>
<td>Sustainment Technologies Integration</td>
<td>Michael Drake</td>
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<tr>
<td>Assistant to the Vice President for Research and the Director, Research Institute</td>
<td>Diana M. Muhlenkamp</td>
</tr>
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<td>Associate Director for Contracts and Grants</td>
<td>Robert P. Boehmer</td>
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<tr>
<td>Contracts and Grants Administrator</td>
<td>Claudette M. Groeber</td>
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<tr>
<td>Government Security</td>
<td>Robert P. Boehmer</td>
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<tr>
<td>Purchasing Agent &amp; Property Administrator</td>
<td>Jon J. Borgwardt</td>
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<td>Controller</td>
<td>John U. Weckesser</td>
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<td>Accounting Administrator</td>
<td>Karen L. Smith</td>
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<td>Network Operations Manager</td>
<td>D. Kiefer Campbell</td>
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<td>Director of Technology Partnerships</td>
<td>Larrell B. Walters</td>
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<tr>
<td>Website and Information Services</td>
<td>Julia K. Phelps</td>
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<td>Administrator</td>
<td>Pamela L. Gregg</td>
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<tr>
<td>Communication Coordinator</td>
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<td>Campus Ministry</td>
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<tr>
<td>Director</td>
<td>Christopher T. Wittmann, S.M.</td>
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<tr>
<td>Assistant Director, Residence Life</td>
<td>Crystal Sullivan</td>
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<tr>
<td>Assistant Director, Director of Center for Social Concern</td>
<td>Nicholas Cardilino</td>
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<tr>
<td>Director of Retreats and Faith Communities</td>
<td>David Conard</td>
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<td>Campus Ministers</td>
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<tr>
<td>Finance and Administrative Services</td>
<td>Thomas E. Burkhardt</td>
</tr>
<tr>
<td>Vice President for Finance and Administrative Services</td>
<td></td>
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<tr>
<td>Internal Auditor</td>
<td>Ann M. Garcia</td>
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<tr>
<td>Investment Officer</td>
<td>Delanie S. Moler</td>
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<tr>
<td>Assistant Vice President for Finance</td>
<td>Thomas J. Weckesser</td>
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<tr>
<td>Director of Student Accounts/Bursar</td>
<td>David Necessary</td>
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<tr>
<td>Director of Purchases and Business Services</td>
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<tr>
<td>Executive Director of Facilities Management</td>
<td>Beth H. Keyes</td>
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<tr>
<td>University Campus Planning Director</td>
<td>Richard G. Perales</td>
</tr>
<tr>
<td>Director of Legal Affairs/University Counsel</td>
<td>John E. Hart</td>
</tr>
<tr>
<td>Director of Institutional Reporting</td>
<td>Susan K. Sexton</td>
</tr>
<tr>
<td>Vice President for Human Resources</td>
<td>Joyce M. Carter</td>
</tr>
<tr>
<td>Special Assistant to the Vice President</td>
<td>Paul M. Lavin</td>
</tr>
<tr>
<td>Human Resources</td>
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<tr>
<td>Position</td>
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<tr>
<td>Vice President for Human Resources</td>
<td>Joyce M. Carter</td>
</tr>
<tr>
<td>Employee Relations Manager (Academics)</td>
<td>Troy W. Washington</td>
</tr>
<tr>
<td>Employee Relations Manager (Non-academic)</td>
<td>M. Lee Morgan</td>
</tr>
<tr>
<td>Employee Relations Specialist</td>
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<tr>
<td>Employee Relations Manager (Research)</td>
<td>Mary Ann Dodaro</td>
</tr>
<tr>
<td>Data Analyst</td>
<td>Stefanie M. Rich</td>
</tr>
<tr>
<td>Director, Compensation and Benefits</td>
<td>Kathleen J. Molnar</td>
</tr>
<tr>
<td>Benefits Manager</td>
<td>Elizabeth A. Schwartz</td>
</tr>
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<td>Compensation Manager</td>
<td>Jean W. Perry</td>
</tr>
<tr>
<td>Human Resources Information Systems Manager</td>
<td>Linda C. Nianouris</td>
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<tr>
<td>Learning and Development Manager</td>
<td>Celine M. O'Neill</td>
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<tr>
<td>Staffing Manager</td>
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**Student Development**

<table>
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<th>Position</th>
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<tbody>
<tr>
<td>Vice President for Student Development and Dean of Students</td>
<td>William C. Schuerman</td>
</tr>
<tr>
<td>Assistant Dean of Students</td>
<td>Rosemary T. O'Boyle</td>
</tr>
<tr>
<td>Assistant to the Vice President</td>
<td>Susan R. Dempsey</td>
</tr>
<tr>
<td>Assistant Vice President and Associate Dean of Students</td>
<td>Carol Cummins-Collier</td>
</tr>
<tr>
<td>Executive Director, Counseling and Health Services</td>
<td>Steven D. Mueller</td>
</tr>
<tr>
<td>Medical Director</td>
<td>Mary P. Buchwalder, M.D.</td>
</tr>
<tr>
<td>Director, Dining Services</td>
<td>Paula H. Smith</td>
</tr>
<tr>
<td>Director, Diverse Student Populations</td>
<td>Monica Y. Adkins</td>
</tr>
<tr>
<td>Executive Director, Public Safety</td>
<td>Bruce E. Burt</td>
</tr>
<tr>
<td>Director, Recreational Sports</td>
<td>Billy R. Mayo</td>
</tr>
<tr>
<td>Executive Director, Residential Services</td>
<td>Craig A. Schmitt</td>
</tr>
</tbody>
</table>

**University Advancement**

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<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Vice President for University Advancement</td>
<td>Frances W. Evans</td>
</tr>
<tr>
<td>Executive Assistant to the Vice President</td>
<td>Karla T. Brooks</td>
</tr>
<tr>
<td>Associate Vice President Development</td>
<td>William F. Shockley</td>
</tr>
<tr>
<td>Associate Vice President Public Relations</td>
<td>Teri J. Rizvi</td>
</tr>
<tr>
<td>Assistant Vice President for Advancement Services</td>
<td>Susan T. Sauer</td>
</tr>
<tr>
<td>Assistant Vice President for Alumni Relations</td>
<td>William E. Hunt</td>
</tr>
</tbody>
</table>

**Athletic Programs and Facilities**

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
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<tbody>
<tr>
<td>Vice President/Director of Athletics</td>
<td>Ted Kissell</td>
</tr>
<tr>
<td>Exec Assistant to the Director</td>
<td>Debbie Seaman</td>
</tr>
<tr>
<td>Associate Vice President of Athletics</td>
<td>Tim Wabler</td>
</tr>
<tr>
<td>Assistant to the Associate Vice President of Athletics</td>
<td>Christine Kraft</td>
</tr>
<tr>
<td>Associate Director of Athletics/Coordinator for Compliance/Senior Woman Administrator</td>
<td>Cindy Hartmann</td>
</tr>
<tr>
<td>Associate Director of Athletics/Director of Athletic Performance</td>
<td>Julie Steinke</td>
</tr>
<tr>
<td>Associate Director of Athletics/Director of Arena &amp; Arena Sports Complex</td>
<td>Joe Owens</td>
</tr>
<tr>
<td>Assistant Director of Athletics</td>
<td>Tim O'Connell</td>
</tr>
<tr>
<td>Assistant Director of Athletics/Frericks Ctr. Equipment</td>
<td>James Brothers</td>
</tr>
<tr>
<td>Assistant Director of Athletics/Equipment</td>
<td>Ken Keck</td>
</tr>
<tr>
<td>Academic Counselor</td>
<td>Elizabeth Flach</td>
</tr>
<tr>
<td>Academic Counselor</td>
<td>Vera Gomes</td>
</tr>
<tr>
<td>Sports Information Director</td>
<td>Doug Hauschild</td>
</tr>
<tr>
<td>Athletics Communications Department</td>
<td>Bill Thomas</td>
</tr>
<tr>
<td>Strength &amp; Conditioning Coach</td>
<td>Mark Thobe</td>
</tr>
<tr>
<td>Director of Corporate Sales &amp; Development</td>
<td>Todd Muckerheide</td>
</tr>
</tbody>
</table>
Director of Men's Basketball Season Tickets
Assistant Director of Athletics/Business Management
Assistant Athletics Business Manager
Head Baseball Coach
Assistant Coach
Men's Head Basketball Coach
Assistant Coaches

Gary McCans
Dawn Mamula
Margaret Gantt
Tony Vittorio
Todd Linklater
Brian Gregory
Bob Beyer, Reggie Rankin, Billy Schmidt

Basketball Operations Coordinator
Women's Head Basketball Coach
Assistant Coaches

Basketball Strength & Conditioning Coach
Men's Cross Country Coach
Women's Cross Country Coach/Assistant
Women's Track & Field Coach
Women's Track & Field Coach
Head Football Coach
Assistant Coaches

Lance Surridge
Jim Jabir
Susan Blauser, Melanie Halker, Bernard Scott
Frank Goldsberry
Mike Bewley
Rich Davis
Ann Aylanak
Kandice Erwin
Mike Kelly
Dave Whilding, Rick Chamberlin, Chris Ochs
Drew Tyrer
Sally Kosters
Michael Farrey
Dennis Currier
Nick Glaser, Paul Souders
Mike Tucker
Amy Berbary, Sergio Gonzalez
Jodi Eickemeyer
Ali Brian
Steve Brumbaugh
Erica Echko
Tim Horsmon
Jason Oliver, Tami Ores
Steve Foster
Nate Seymour
Sara Thomas, Kaname
Yamaguchi
Tony Caruso

Equipment & Awards Manager
Director of Development for Intercollegiate Athletics
Faculty Athletics Representative

J. Michael O'Hare, Ph.D.
Faculty

PAST PRESIDENT


DEANS EMERITI


Gould, Sam (1985), Management and Marketing, Professor - B.S., The Ohio State University, 1965; M.B.A. University of Colorado, 1970; Ph.D., Michigan State University, 1975.


PROFESSORS EMERITI


Back, Stanley J. (1959), Mathematics - B.S., University of Dayton, 1957; M.S., Purdue University, 1959.


Chuang, Henry N. (1965), Mechanical and Aerospace Engineering - B.S., National Taiwan University, 1958; M.S., University of Maryland, 1962; Ph.D., Carnegie Institute of Technology, 1966; Reg. Prof. Engr.


Comer, Orville L. (1950), Marketing - B.S., Washington University, 1948; M.S., 1949.


Drees, Doris A. (1956), Health & Sport Science - B.S., University of Dayton, 1956; M.A., The Ohio State University, 1959; Ph.D., University of Iowa, 1968.


Eveslage, Sylvester L. (1948), Chemistry - B.S., University of Notre Dame, 1944; M.S., 1945; Ph.D., 1953.


Fost, Roberta S. (1969), History - B.A., University of California, 1964;
M.A., University of Chicago, 1966; Ph.D., 1974
Fraker, John R. (1975), Engineering Management and Systems - B.S., University of Tennessee, 1956; M.S., 1965; Ph.D., Clemson University, 1971; Reg. Prof. Engr.
Frericks, Donald J. (1978), Educational Leadership - B.S., University of Dayton, 1956; M.A., Miami University, 1958; Ph.D., The Ohio State University, 1970.
Frye, Helen B. (1967), Teacher Education - B.A., Ohio Wesleyan University, 1944; M.Ed., Wittenberg University, 1962; Ph.D., The Ohio State University, 1967.
Fuchs, Gordon E. (1967), Teacher Education - B.S., University of Wisconsin, 1958; M.S., 1961; Ph.D., The Ohio State University, 1974.
Gantner, Thomas E. (1966), Mathematics - B.S., University of Dayton, 1962; M.S., Purdue University, 1964; Ph.D., 1966.
George, Norman (1962), Law - The Ohio State University, 1950; M.B.A., University of Pittsburgh, 1954; Ph.D., The Ohio State University, 1962; J.D., Salmon Chase College, 1967.
Graham, Thomas P. (1964), Physics - B.S., Providence College, 1956; Ph.D., Iowa State University, 1967.
Harwood, Philip J. (1966), Communication - B.S., Butler University, 1960; M.S., 1961; Ph.D., Ohio University, 1972.
Kepes, Joseph J. (1962), Physics - B.S., Case Institute of Technology, 1953; Ph.D., University of Notre Dame, 1958.
Kester, Jack E. (1966), Computer Science - B.S., University of Dayton,
1952; M.S., The Ohio State University, 1958.

Klosterman, Rita (1960), Teacher Education - B.A., Immaculate Heart College, 1942; M.A., St. John's College, 1956; Ph.D., Indiana University, 1968.


Laufersweiler, Joseph D. (1963), Biology - B.S., University of Notre Dame, 1952; M.Sc., The Ohio State University, 1954; Ph.D., 1960.


Lestigi, Joseph (1992), Mechanical and Aerospace Engineering - B.C.E., Manhattan College, 1957; M.S., Virginia Polytechnic Institute, 1959; D.Eng., Yale University, 1966.

Lu, Christopher C. (1976), Chemical and Materials Engineering - B.S., Chen-Kung University, 1960; M.S., University of Missouri, 1966; Ph.D., University of Texas, 1972.

Maras, Raymond J. (1959), History - B.A., University of California, 1946; M.A., Catholic University of America, 1948; Ph.D., University of California, 1955.


Morlan, Don B. (1977), Communication - B.S., Indiana State University,
Mott, Robert L. (1966), Engineering Technology - B.M.E., General Motors Institutes, 1963; M.S.M.E., Purdue University, 1965; Reg. Prof. Engr.
Patyk, Josef (1963), Political Science - Certificate, School of Public Administration, Poland, 1935; LL.M., Jagiellonski University, 1945; Ph.D., University of Colorado, 1965.
Ramsey, James M., (1964), Biology - B.S., Wilmington College, 1948; M.S., Miami University, 1951.
Rice, Bernard J. (1960), Mathematics - B.S., St. Louis University, 1955; M.S., The Ohio State University, 1961.
Schleppi, John R. (1963), Health and Sport Science - B.S., The Ohio

Schroeder, Elizabeth (1950), Human Ecology - B.S., College of Mt. St. Joseph-on-the-Ohio, 1942; M.S., The Ohio State University, 1958.


Steiner, Wilfred J. (1946), History - A.B., Loras College, 1936; M.A., Harvard University, 1938; Ph.D., The Ohio State University, 1957.


Thiele, Gary A. (1979), Electrical and Computer Engineering - B.S.E.E., Purdue University, 1977; M.Sc., The Ohio State University, 1964; Ph.D., 1968; Reg. Prof. Engr.; Fellow IEEE, 1982.


Tsui, Susan L. (1965), Library - B.A., National Taiwan University, 1961; M.S.L.S., University of Illinois, 1954.


Institute of Technology, 1959; M.S.T.E., 1961; M.S., The Ohio State University, 1964; Ph.D., 1968.

Wilder, Jesse H. (1953), Mechanical Engineering Technology - B.S.M.E., Duke University, 1947; M.S., State University of Iowa, 1949; Reg. Prof. Engr.


DIRECTOR OF ADMISSION EMERITUS


REGISTRAR EMERITUS


DISTINGUISHED SERVICE PROFESSORS


Bohlen, George A. (1980), Management Information Systems and Decision Sciences - B.S.M.E., Clemson University, 1958; M.S.I.E., Purdue University, 1963; M.S.B.A., George Washington University, 1968; Ph.D., Purdue University, 1973.

Drees, Doris A. (1956), Health and Sport Science - B.S., University of Dayton, 1956; M.A., The Ohio State University, 1959; Ph.D., University of Iowa, 1968.


George, Norman (1962), Law - The Ohio State University, 1950; M.B.A., University of Pittsburgh, 1954; Ph.D., The Ohio State University, 1962; J.D., Salmon Chase College, 1967.


Noland, George B. (1955), Biology - B.S., University of Detroit, 1950; M.S., 1952; Ph.D., Michigan State University, 1955.

Peterson, Richard E. (1957), Mathematics - B.A., Hiram College, 1955; M.S., Purdue University, 1957.

Ryckman, Seymour J. (1959), Civil and Environmental Engineering and Engineering Mechanics - B.S., Michigan State University, 1939; M.S., University of Missouri, 1942; Reg. Prof. Engr.

Schmidt, Bernhard M. (1948), Electrical Engineering - B.E.E., University of
Dayton, 1942; M.S., The Ohio State University, 1957; Ph.D., 1963; Reg. Prof. Engr.


DISTINGUISHED TEACHING PROFESSOR


RANKED FACULTY AND INSTRUCTIONAL STAFF

Aaron, Philip T., S.M. (1979), Campus Ministry, Administrative - B.S., University of Dayton, 1954; M.S., St. Louis University, 1964; Ph.D., Case Western Reserve University, 1973.

Abueida, Ali A. (2000), Mathematics, Associate Professor - B.S., United Arab Emirates University, 1987; M.S., East Tennessee State University, 1995; Ph.D., Auburn University, 2000.


Adams, Shauna M. (1993), Teacher Education, Associate Professor - B.S., University of Dayton, 1979; M.S., 1986; Ed.D., University of Cincinnati, 1996.


Ahoujja, Mohamed (2001), Physics, Assistant Professor - B.A., Kenyon College, 1990; M.S., University of Cincinnati, 1993; Ph.D., 1996.


Altman, Aaron (2002), Mechanical and Aerospace Engineering, Assistant Professor - B.S.E., Tulane University, 1990; M.S.E., University of Texas at Austin, 1994; Ph.D., Cranfield University, 2001.


Balcarcel, Ana (2005), Economics and Finance, Assistant Professor - B.S., University of Maryland, 1998; M.S., Arizona State University, 1999.


Barnes, Michael H. (1988), Religious Studies, Professor - A.B., St Louis University, 1961; Ph.L., 1962; Ph.D., Marquette University, 1976.


Baxley, Frank O. (2002), Electro-Optics, Adjunct Assistant Professor - B.S., Miami University, 1974; M.S., 1976; M.B.A., The Ohio State University, 1985; Ph.D., University of Dayton, 2001.

Becker, Paul J. (2002), Sociology, Anthropology, and Social Work, Assistant Professor - B.S., Indiana State University, 1987; M.S., 1989; Ph.D., Bowling Green State University, 1996.


Benin, Vladimir A. (2001), Chemistry, Assistant Professor - B.S., University of Sofia, 1990; M.S., Vanderbilt University, 1993; Ph.D., 1995.


Biers, David W. (1976), Psychology, Associate Professor - B.A., Lafayette College, 1965; M.S., Northwestern University, 1968; Ph.D., 1970.


Bower, Samuel M. (1965), Psychology, Associate Professor - B.A., Mexico City College, 1957; Ph.D., Vanderbilt University, 1963.
Bowers, Jeanne (1993), English Language and Multicultural Institute, Administrative - B.A., California State University, Sacramento, 1974; M.S., 1977.


Brady, Thomas J. (1981), Accounting, Associate Professor - B.S., New York University, 1966; M.B.A., Adelphi University, 1968; Ph.D., St. Louis University, 1981.

Braithler, C. Jayne (2000), Health & Sport Science, Assistant Professor - B.S., Montana State University, 1980; M.S., Washington State University, 1993; Ph.D., 1998.


Brar, Nahhatter S. (1986), Mechanical and Aerospace Engineering, Associate Professor - B.S., University of the Punjab, 1962; M.S., 1965; M.S., Trent University, 1971; Ph.D., University of Western Ontario, 1979.

Brecha, Robert J. (1993), Physics, Professor - B.S., Wright State University, 1983; Ph.D., University of Texas at Austin, 1990.

Breitwisch, Randall J. (1988), Biology, Associate Professor - B.S., University of Miami, 1973; M.S., 1977; M.S., University of Michigan, 1982; Ph.D., University of Miami, 1987.


Browning, Charles E. (1976), Materials Engineering, Professor - B.S., West Virginia University, 1966; M.S., Wright State University, 1970; Ph.D., University of Dayton, 1976.

Buchwalder, Mary P.(2003), Health Center, Administrative - B.S., University of Dayton; D.M., The Ohio State University, 1986.

Buckley, David M. (1968), Library, Associate Professor - B.A., Miami University, 1966; M.A.L.S., Western Michigan University, 1968; M.A., University of Dayton, 1975.


Burky, Albert J. (1973), Biology, Professor - B.A., Hartwick College, 1964; Ph.D., Syracuse University, 1969.


Burrows, Ron J. (1981), Accounting, Associate Professor - B.S., Northern Illinois University, 1965; M.S., 1968; Ph.D., Pennsylvania State University, 1980.


Carlson, Marybeth (1993), History, Associate Professor - B.A., University of Maryland, 1979; M.A., University of Wisconsin, 1986; Ph.D., 1992.


Carrillo, Albino (2003), English, Assistant Professor - B.A., University of New Mexico, 1986; M.F.A., Arizona State University, 1993.


Castellano, Joseph F. (1999), Accounting, Professor - B.S., St. Louis University, 1964; M.S., 1965; Ph.D., 1971.


Chen, Rong-chin Carl (1977), Economics and Finance, Professor, William J. Hoben Research Scholar in International Business - B.A., National Taiwan University, 1969; M.S., Auburn University, 1973; Ph.D., University of Georgia, 1977.


Chiolo, Andria J. (1968), Languages, Assistant Professor - B.A., University of Oregon, 1966; M.A., 1968.

Chuck, Leon (1989), Mechanical and Aerospace Engineering, Assistant Professor - B.S., University of Maryland, 1978; M.S., 1984.

Church, Kevin M. (1990), Chemistry, Associate Professor - B.S., University of Nebraska, 1982; M.S., University of Nebraska Medical Center, 1985; Ph.D., 1988.


Conniff, Brian P. (1990), English, Professor - B.A., Rutgers University, 1978; M.A., University of Scranton, 1980; Ph.D., University of Notre Dame, 1984.


Conte, Francis J. (1987), Law, Professor - B.A., Pennsylvania State University, 1964; J.D., University of Texas, 1969.

Cook, Rebecca Ann (2002), Counseling Center, Administrative - B.S., Purdue University, 1976; M.S., Indiana University, 1990; Ph.D., University of Memphis, 2002.

Costales, Kathleen A (2004), Languages, Assistant Professor - B.A., Wittenberg University, 1986; M.A., Binghamton University; Ph.D., Vanderbilt University, 2004.


Cox, Jeannette (2006), School of Law, Assistant Professor - B.A., Hanover College, 2001; J.D., Notre Dame Law School, 2005.

Craver, Bruce A (1978), Physics, Associate Professor - B.S., Purdue University, 1969; M.S., 1971; Ph.D., 1976.

Crist, Maria Perez (1989), Law, Professor of Lawyering Skills - B.A., Northwestern University, 1978; J.D., University of Michigan, 1981.


Cusella, Louis P. (1985), Communication, Professor - B.A., Kent State University, 1971; M.A., The Ohio State University, 1974; Ph.D., Purdue University, 1978.

Dai, Liming (2004), Chemical and Materials Engineering and UDRI, Professor, Wright Brothers Institute Endowed Chair in Nanomaterials - B.S., Zhejiang University, 1983; Ph.D. Australian National University, 1991.


Darrow, David (1996), History, Assistant Professor - B.A., University of Northern Iowa, 1986; M.A., University of Iowa, 1988; Ph.D., 1996.


Ohio State University, 1979; M.B.A., Harvard University, 1984.


Driskell, Shannon, O.S. (2003), Mathematics, Assistant Professor - B.S., Edinboro University, 1992; M.A., East Carolina University, 1997; (cand.) Ph.D., University of Virginia, 2003.


Elvers, Greg C. (1990), Psychology, Associate Professor - B.S., Purdue University, 1984; B.A., 1985; M.S., 1987; Ph.D., 1989.

Endres, Thomas E. (1987), Mechanical and Aerospace Engineering, Associate Professor - B.M.E., University of Dayton, 1966; M.S.M.E., 1969; Reg. Prof. Engr.


Erdei, John E. (1983), Physics, Associate Professor - B.S., Cleveland State University, 1973; M.S., 1976; Ph.D., University of Cincinnati, 1983.

Ervin, Jamie S. (1992), Mechanical and Aerospace Engineering, Professor - B.S.M.E., Michigan Technological University, 1984; M.S.M.E., 1986; Ph.D., University of Michigan, 1991.


Fackovec, William M., S.M. (1960), Library, Associate Professor - B.S.Ed., University of Dayton, 1949; M.S.L.S., Western Reserve University, 1959.


Ferguson, Susan M. (1990), Teacher Education, Program Coordinator - B.S., University of Dayton, 1975; M.S., 1982.


Fetherston, Rebecca (2005), Biology, Lecturer - B.A., Miami University, 2000; M.S., 2005.


Fleischmann, Ellen L. (1998), History, Assistant Professor - B.A., Wesleyan University, 1977; Ph.D., Georgetown University, 1996.


Fratini, Albert V. (1967), Chemistry, Professor - B.S., University of Rhode Island, 1960; Ph.D., Yale University, 1966.

Fries, Carl F. (1992), Biology, Associate Professor - B.S., University of Connecticut, 1982; M.S., University of Rhode Island, 1984; Ph.D., Utah State University, 1991.

Froehlich, Robert J. (2001), School of Business Administration, Executive-in-Residence - B.A., University of Dayton, 1975; M.P.A., Central Michigan University, 1976; M.S., 1978; Ph.D., California Western University, 1979.


Gabbe, Myrna (2005), Philosophy, Assistant Professor - B.A., University of Wisconsin, 1995; Ph.D., University of Pennsylvania, 2005.


Gannon, Loren S., Jr. (1975), History, Adjunct Professor - B.S., University of Omaha, 1963; M.A., University of Dayton, 1970.


Geary, K. Michael (1976), Accounting, Associate Professor - B.S., Indiana University, 1969; M.B.A., Miami University, 1974; Ph.D., University of Cincinnati, 1982; C.P.A., Illinois, 1975; Ohio, 1976.

Geiger, Donald R., S.M. (1964), Biology, Professor - B.S., University of Dayton, 1955; M.S., The Ohio State University, 1960; Ph.D., 1963.


Gfroerer, Susan (2006), Counselor Education and Human Services, Clinical Faculty - B.A., University of North Carolina at Chapel Hill, 1995; M.S., Miami University, 1997; Sp.E., 1999.


Goldmann, Daniel (1997), Geology, Assistant Professor - B.A., State


Greenlee, Janet S. (1999), Accounting, Associate Professor - B.S., The Ohio State University, 1967; M.S.W., West Virginia University, 1973; M.B.A., University of California, Los Angeles, 1978; Ph.D., University of Kentucky, 1993.


Griffin, James F. (1985), Chemical and Materials Engineering, Adjunct Professor - B.A., Oberlin College, 1961; M.S.Ch.E., Ohio University, 1967.

Griffin, Jeffrey L. (1990), Communication, Associate Professor - A.B., University of North Carolina, 1979; M.A., University of Texas, 1983; Ph.D., University of North Carolina, 1990.


Haase, Dwight (2005), Sociology, Anthropology, and Social Work, Visiting Assistant Professor - B.A., Purdue University, 1991; M.A., Clark University, 1998; Ph.D., University of Wisconsin, 2001.


Hallinan, Kevin P. (1988), Mechanical and Aerospace Engineering, Professor - B.S., University of Akron, 1982; M.S., Purdue University, 1984; Ph.D., Johns Hopkins University, 1988.

Han, Jee-Hee. (2006), Communication, Assistant Professor - B.A., Sogang University, 1997; M.A., 1999; M.A., University of Georgia, 2001; M.S., 2002.


Heitmann, John A. (1984), History, Professor, Alumni Chair in the Humanities - B.S., Davidson College, 1970; M.A., Clemson University, 1974; Ph.D., Johns Hopkins University, 1983.


Herrelio, David A. (2000), School of Engineering, Bernard Schmidt Chair in Engineering Leadership - B.S.E.E., Massachusetts Institute of Technology, 1969; M.S., Syracuse University, 1970; M.B.A., University of Dayton, 1975; Ph.D., University of California, Los Angeles, 1976.


Hiller, James M. (2001), Music, Lecturer - B.M., Capital University, 1982; M.M.T., Temple University, 1994; MT-BC.


Hofmann, Marie-Claude (1995), Biology, Associate Professor - M.S., University of Lausanne, Switzerland, 1977; Ph.D., 1988.


Hong, Yiling (2005), Biology, Assistant Professor - B.S., Xiamen University, 1984; M.S., 1987; Ph.D., University of Kentucky, 1997.

Hovey, Peter W. (2001), Mathematics, Assistant Professor - B.S., University of Dayton, 1975; M.S., University of Kentucky, 1977; Ph.D., 1980.


Hu, Benjamin G. (1994), Law Library, Assistant Professor - B.A., East China Normal University, 1985; M.A., University of Akron, 1988; M.L.S.,


Hunley, Sawyer (1999), Counselor Education and Human Services, Associate Professor - B.S., Miami University, 1976; M.S., 1986; Ed.S., 1990; Ph.D., University of Cincinnati, 1998.


Islam, Muhammad (1985), Mathematics, Professor - B.S., University of Dhaka, Bangladesh, 1972; M.S., Carleton University, Ottawa, 1980; Ph.D., Southern Illinois University, 1985.

Jain, Vinod K. (1979), Mechanical and Aerospace Engineering, Professor - B.S.M.E., University of Roorkee, India, 1964; M.S.M.E., 1970; Ph.D., Iowa State University of Science and Technology, 1980.


Johnson, Sam (1985), College of Arts and Sciences, Assistant Dean, Administrative - B.A., Millikin University, 1966; M.Div., Union Theological Seminary, 1969.


Karns, Margaret P. (1976), Political Science, Professor - B.A., Denison University, 1965; M.A., University of Michigan, 1966; Ph.D., 1975.

Kashani, A. Reza (1994), Mechanical and Aerospace Engineering, Professor - B.S.M.E., Sharif University, 1977; M.S.M.E., University of Wisconsin, 1979; M.S., 1988; Ph.D., University of Wisconsin, 1989.

Katsuyama, Ronald M. (1973), Psychology, Associate Professor - B.S., University of California, 1966; Ph.D., Vanderbilt University, 1977.

Kearns, Robert J. (1984), Biology, Professor - B.S., Washington State University, 1968; M.S., 1975; Ph.D., 1978; M.T. (ASCP), 1971.


Kelly, Mary Kay (2005), Teacher Education, Assistant Professor - B.A., College of St. Benedict, 1987; B.S., University of Minnesota, 1990; M.Ed., Miami University, 1996; Ph.D., Miami University, 2001.


Kirschman, Keri (2005), Psychology, Assistant Professor - B.A., Denison University, 1997; M.A., University of Kansas, 1999; Ph.D., 2003.


Kissock, John K. (1995), Mechanical and Aerospace Engineering, Associate Professor - B.S., University of Colorado, 1982; M.S., Washington University, 1989; Ph.D., Texas A&M University, 1993.

Klo, Daniel L., S.M. (2001), Biology, Lecturer - B.A., Western Michigan University, 1972; M.P.S., Loyola University, Chicago, 1981; M.S.
Krause, Carissa M. (2001), Biology, Assistant Professor - B.S., Marquette University, 1990; Ph.D., Washington University, 1996.
Krug, Janis L. (1987), Languages, Associate Professor - B.A., Ohio Northern University, 1974; M.A., University of Toledo, 1979; Ph.D., University of Pittsburgh, 1986.
Kumar, Binod (1980), Electro-Optics, Associate Professor - B.S., Banaras Hindu University, 1967; M.S., Pennsylvania State University, 1973; Ph.D., 1976.
Lain, Laurence B. (1976), Communication, Professor - B.S., Indiana State University, 1969; M.A.E., Ball State University, 1973; Ph.D., The Ohio State University, 1984.
Larson, Robert K., (2001), Accounting, Associate Professor - B.S., George Fox College, 1980; M.B.A., Portland State University, 1987; Ph.D., University of Utah, 1993.
Lau, Terence J. (2002), Management and Marketing, Assistant Professor - B.A., Wright State University, 1995; J.D., Syracuse University, 1998.
- B.S., Central State University, Oklahoma, 1961; M.S., University of Oregon, 1962; Ph.D., The Ohio State University, 1970.


Lech, Robert (2005), School of Law, Visiting Assistant Professor - B.S.A., University of Michigan, 1985; J.D., Detroit College of Law, 1991.

Lee, C. William (1982), Chemical and Materials Engineering, Professor - B.S., National Taiwan University, 1976; M.S., University of Akron, 1979; Ph.D., The Ohio State University, 1982.


Liu, Ruihua (2004), Mathematics, Assistant Professor - B.E., Nankai University, 1985; M.E., 1988; Ph.D. (Engineering), 1994; M.S., University of Georgia, 2001; Ph.D. (Mathematics), 2002.

Liu, Shiqiang (1990), Materials Engineering, Professor - B.S., Beijing University of Science and Technology, 1967; M.S., 1980; Ph.D., University of Dayton, 1989.


Lysaught, M. Therese (1995), Religious Studies, Associate Professor - B.S., Hope College, 1985; M.A., University of Notre Dame, 1986; Ph.D.,


Ph.D., State University of New York at Buffalo, 1986.


Miller, Sheila (2004), Law, Assistant Professor of Lawyering Skills - B.A., Miami University, 1983; J.D., University of Cincinnati, 1987.


Moon, Donald L. (1974), Electrical and Computer Engineering and Electro-Optics, Professor - B.S.E.E., West Virginia Institute of Technology, 1963; M.S.E.E., University of Toledo, 1966; Ph.D., The Ohio State University, 1974.


Morrison, Julie Q. (2003), Counselor Education and Human Services, Assistant Professor - B.S., St. Louis University, 1992; M.A., Xavier University, 1998.


Mosser, Kurt (1992), Philosophy, Associate Professor - B.A., Southern Methodist University, 1979; M.A., University of Chicago, 1982; Ph.D., 1990.

Moulin, Eugene K. (1968), Counselor Education and Human Services, Professor - B.A., Mount Union College, 1956; M.E., Kent State University, 1959; Ph.D., University of Toledo, 1968.


Murray, Andrew P. (1996), Mechanical and Aerospace Engineering, Associate Professor - B.S., Rose-Hulman Institute of Technology, 1989; M.S., University of California, Irvine, 1993; Ph.D., 1996.

Murray, Paul T. (1982), Materials Engineering, Professor - B.S., University of Cincinnati, 1974; Ph.D., University of North Carolina, 1979.


Neeley, Grant (2005), Political Science, Associate Professor - B.A., Texas A&M University, 1989; M.P.A., 1991; Ph.D., University of Tennessee, 1998.

Nelson, Peter B. (1979), Political Science, Assistant Professor - B.S., Florida State University, 1969; B.S., Florida International University, 1973; M.S.M., 1975; Ph.D., University of Mississippi, 1982.

Nielsen, Mark G. (2001), Biology, Assistant Professor - B.A., Oberlin College, 1998; Ph.D., Stanford University, 1994.


O'Gorman, John M. (1999), Library, Associate Professor - B.A., Walsh University, 1981; M.L.S., St. John's University, 1983.

OHare, J. Michael (1966), Physics, Professor - B.S., Loras College, 1960; M.S., Purdue University, 1962; Ph.D., State University of New York at Buffalo, 1966.

Oldenski, Thomas, S.M. (1994), Educational Leadership, Associate Professor - B.A., University of Dayton, 1972; M.Ed., Boston College,
1975; M.A., Western Michigan University, 1978; Ed.S., University of Dayton, 1984; Ph.D., Miami University, 1994.

O'Meara, Maureen F. (1986), Languages, Associate Professor - B.A., Trinity College, 1971; Ph.D., Cornell University, 1976.

O'Meara, Maureen F. (1986), Languages, Associate Professor - B.A., Trinity College, 1971; Ph.D., Cornell University, 1976.

Ordóñez, Raúl, E. (2001), Electrical and Computer Engineering, Assistant Professor - B.S., Monterrey Institute of Technology, 1994; M.S., The Ohio State University, 1996; Ph.D., 1999.


Ormond, Mark (2005), India Program, Executive Director - B.S., University of Dayton, 1968; M.S., Adelphi University, 1973; M.A., St. John's University, 1977.

Ostdiek, Francis R., (1996), Mechanical and Aerospace Engineering, Adjunct Associate Professor - B.S., University of Nebraska, 1957; M.S., The Ohio State University, 1975.

Oumlil, A Ben (1983), Management and Marketing, Associate Professor - B.S., Southwest Missouri State University, 1976; M.B.A., 1977; Ph.D., University of Arkansas, 1983.

Pair, Donald L. (1991), Geology, Professor - B.S., St. Lawrence University, 1983; M.Sc., University of Waterloo, 1986; Ph.D., Syracuse University, 1991.

Pan, Yue (2003), Management and Marketing, Assistant Professor - B.A., Tsinghua University, 1986; B.Eco., 1996; M.Eng., 1998; Ph.D., University of Georgia, 2003.


Patterson, Mark A. (2002), Engineering Technology, Assistant Professor - B.S.E.T., Brigham Young University; M.S.E.T., 2002.

Payne, Michael A. (1977), Philosophy, Associate Professor - B.A., Xavier University, 1966; M.A., Boston College, 1970; Ph. D., University of Georgia, 1972.

Pedrotti, Leno M. (1987), Physics, Professor - B.A., Wright State University, 1981; Ph.D., University of New Mexico, 1986.

Peeler, Deborah (1995), Engineering Management and Systems, Adjunct Professor - B.S., Purdue University, 1977; M.S., University of Cincinnati, 1975; J.D., Salmon P. Chase College of Law, 1983; Ph.D., University of Dayton, 1992; Reg. Prof. Engr.


Penno, Robert P. (1984), Sociology, Anthropology, and Social Work, Professor - B.A., John Carroll University, 1974; M.A., University of Akron,

Petrykowski, John C. (1985), Mechanical and Aerospace Engineering, Associate Professor - B.S., University of Wisconsin, 1975; M.S., University of Illinois, 1978; Ph.D., 1981.


Pierce, Jason L. (2002), Political Science, Assistant Professor - B.A., Southwestern University, 1994; Ph.D., University of Texas-Austin, 2002.


Place, A. William (1994), Educational Leadership, Associate Professor - B.S., University of Dayton, 1976; M.S., 1980; Ph.D., The Ohio State University, 1988.

Poe, Danielle M. (2001), Philosophy, Assistant Professor - B.A., Seattle University, 1995; M.A., Catholic University, Belgium, 1997; Ph.D., Fordham University, 2001.


Polzella, Donald J. (1972), Psychology, Professor - B.A., University of Rochester, 1967; M.A., Bucknell University, 1969; Ph.D., University of Michigan, 1974.


Powers, Peter E. (1997), Physics, Associate Professor - B.S., Massachusetts Institute of Technology, 1988; M.S., Cornell University, 1990; Ph.D., 1994.


Pratt, Henry (2006), Philosophy, Lecturer - B.A., University of Vermont, 1995; Ph.D., The Ohio State University, 2005.


Raffoul, Youssef N. (1999), Mathematics, Associate Professor - B.S., University of Dayton, 1987; M.S., 1989; M.A., Indiana University, 1991; Ph.D., Southern Illinois University at Carbondale, 1996.


Randolph, David W. (2003), Accounting, Assistant Professor - B.S., University of Kentucky, 1989; M.B., Indiana University, 1998; Ph.D., 2000.


Richards, William M. (1970), Philosophy, Associate Professor - B.A., LeMoyne College, 1966; Ph.D., Georgetown University, 1970.


Robinson, James D. (1982), Communication, Professor - B.A., University of the Pacific, 1978; M.A., West Virginia University, 1979; Ph.D., Purdue University, 1982.


Robinson, Jayne B. (1994), Biology, Professor - B.S., Bowling Green State University, 1978; M.S., The Ohio State University, 1984; Ph.D., 1991.


Rosenberger, Andrew H. (1998), Materials Engineering, Adjunct Professor - B.S., Michigan Technological University, 1986; M.S., 1987; Ph.D., University of Rhode Island, 1993.


Rowe, John J. (1977), Biology, Professor - B.S., Colorado State University, 1968; M.S., Arizona State University, 1971; Ph.D., University of Kansas Medical Center, 1975.

Rowley, James B. (1989), Teacher Education, Professor - B.S., University of Dayton, 1969; M.S., Miami University, 1974; Ph.D., The Ohio State University, 1989.

Rozhkov, Igor (2006), Physics, Lecturer - Masters Diploma, Moscow Institute of Physics and Technology, 1996; M.S., University of Illinois at Urbana-Champaign, 2000; Ph.D., 2003.


Ruh, Robert (1998), Materials Engineering, Adjunct Professor - B.S., Rutgers University, 1952; M.S., 1953; Ph.D., 1960.


Safer, Kristen (2006), School of Law, Assistant Professor of Lawyering Skills - B.Phil., Miami University, 1997; J.D., University of Cincinnati, 2001.


Sandy, Michael Reginald (1987), Geology, Professor - B.Sc., Queen Mary College, University of London, 1980; Ph.D., 1984.

Santamarina, Juan C. (1997), History, Associate Professor - B.A., University of Wisconsin-Madison, 1989; Ph.D., Rutgers University, 1995.


Sargent, Gordon A. (1985), Mechanical and Aerospace Engineering, Professor - B.Sc., Imperial College of Science and Technology, University of London, 1960; Ph.D., 1964.

Sathish, Samachary (1999), Materials Engineering, Adjunct Associate Professor - B.Sc., University of Mysore, 1974; M.Sc., 1976; Ph.D., 1986.


Scantlin, Ronda M. (2002), Communication, Assistant Professor - B.A., Bethany College, 1992; M.A., University of Kansas, 1995; Ph.D., University of Texas-Austin, 1999.

Schaller, Molly A. (1989), Counselor Education and Human Services, Assistant Professor - B.A., The Ohio State University, 1987; M.S., Miami University, 1989; Ph.D., Ohio University, 2000.

Schauer, John J. (1968), Mechanical and Aerospace Engineering, Professor - B.M.E., University of Dayton, 1958; M.S., Carnegie Institute of Technology, 1959; Ph.D., Stanford University, 1964.


Schneider, Scott J. (2004), Engineering Technology, Assistant Professor - B.S.E.E., University of Dayton, 1996; M.S., The Ohio State University, 1998.


Seary, E. Dale (1976), Law, Professor - B.S., General Motors Institute, 1959; J.D., Indiana University, 1963; LL.M., New York University, 1966.


Seitz, Jennifer (1998), Computer Science, Associate Professor - B.M., West Chester State College, 1982; B.S., Arizona State University, 1985; M.S., University of Cincinnati, 1993; Ph.D., 1997.


Shaughnessy, Gerald J. (1967), Mathematics, Associate Professor - B.S., University of Dayton, 1963; M.S., Florida State University, 1964.


Shine, Andrew J. (1985), Mechanical and Aerospace Engineering, Adjunct Professor - B.M.E., Rensselaer Polytechnic Institute, 1946; M.M.E., 1947; Ph.D., The Ohio State University, 1957; Reg. Prof. Engr.


Sidhu, Sukhjinder S. (1992), Mechanical and Aerospace Engineering, Assistant Professor - B.S., Osmania University, 1987; M.S., 1991; Ph.D., 1992.

Smari, Waleed W. (1999), Electrical and Computer Engineering, Associate Professor - B.S., University of Baghdad, 1978; M.S., Syracuse University, 1990; Ph.D., 1996.


Smith, Todd B. (2001), Physics, Assistant Professor - B.S., University of Notre Dame, 1989; M.A., Miami University, 1990; M.S., University of Michigan, 1996; Ph.D., 1998.


Sparks, John R. (1995), Management and Marketing, Associate Professor - B.B.A., West Texas State University, 1988; Ph.D., Texas Tech University, 1995.


Street, Donna L. (2002), Accounting, Professor, AI & Marcie Mahrt Chair in

Street, P. Eric (1992), Music, Professor, Graul Chair in the Arts and Languages - B.M., Cornell College, 1975; M.M., Indiana University, 1977; D.M., 1985.


Subramanyam, Guru (1998), Electrical and Computer Engineering, Associate Professor - B.E., University of Madras; 1984; M.S., University of Cincinnati, 1988; Ph.D., 1993.


Summers, Donna C. S. (1984), Engineering Technology, Professor - B.S.M.E., University of Cincinnati, 1982; M.S.I.E., Purdue University, 1984; Ph.D., University of Cincinnati, 1991.

Swavey, Shawn M. (2002), Chemistry, Assistant Professor - B.S., Edinboro University, 1991; M.S., Case Western Reserve University, 1995; Ph.D., 1998.


Tanova, Nadya (2005), Languages, Lecturer - B.A., University of Sofia, 1990; M.A., Purdue University, 2002.

Taylor, Annette M. (1988), Communication, Assistant Professor - B.A., Michigan State University, 1974; M.A., 1968; Ph.D., Bowling Green State University, 1996.

Taylor, David L. (1971), Biology, Clinical Associate Professor - B.A., Wittenberg University, 1963; M.S., West Virginia University, 1965; Ph.D., 1968.


Thompson, Teresa L. (1985), Communication, Professor - B.A., University of Wisconsin, 1975; M.A., Purdue University, 1976; Ph.D., Temple University, 1980.


Tibbetts, Paul E., Jr. (1969), Philosophy, Professor - B.A., Clark University, 1964; M.A., Boston University, 1965; Ph.D., Purdue University, 1973; Ph.D., University of Illinois, 1985.

of Cincinnati, 1958; Ph.D., The Ohio State University, 1968.


Tillman, Beverly A. (1990), Teacher Education, Associate Professor - B.S., Miami University, 1974; M.A., University of Michigan, 1975; Ph.D., The Ohio State University, 1992.

Tiltebaum, Peter J. (1996), Health and Sport Science, Associate Professor - B.S., State University of New York at Brockport, 1982; M.S., The Ohio State University, 1985; Ph.D., Temple University, 1993.


Tran, Duc (2003), Computer Science, Assistant Professor - B.Sc., Vietnam National University, 1996; Ph.D., University of Central Florida, 2003.


Tsonis, Panagiots (1989), Biology, Professor - B.S., Patras University, 1977; M.S., Nagoya University, 1980; Ph.D., 1983.


Van Zandt, Victoria (2005), School of Law, Assistant Professor of Lawyering Skills - B.A., The Ohio State University, 1991; J.D., University of Dayton School of Law, 1996.


Watras, Joseph L. (1979), Teacher Education, Professor - B.A., Boston


Wendeln, Donald E. (1965), Engineering Technology, Adjunct Professor - B.M.E., University of Dayton, 1950.


Wilkins, Robert J. (1999), Chemical and Materials Engineering, Associate Professor - B.C.M.E., University of Dayton, 1992; M.S. 1993; Ph.D., Ohio University, 1997.


Williams, P. Kelly (1973), Biology, Professor - B.A., University of Texas, 1966; M.S., University of Minnesota, 1969; Ph.D., Indiana University, 1973.


Womack, Alton W., Major (2000), Military Science, Assistant Professor - B.S., Bowling Green State University, 1975.


Wright, David J. (1996), Biology, Associate Professor - B.Sc., University of Sheffield, England; Ph.D., University of Iowa, 1989.
Wright, Shirley Jane (1993), Biology, Associate Professor - B.S., Loyola University, Chicago, 1981; M.S., 1983; Ph.D., University of Iowa, 1981.

Wu, Shuang-Ye (2004), Geology, Visiting Assistant Professor - B.A., Nanjing University, 1991; M.A., Beijing Foreign Study University, 1994; M.Phil., Cambridge University, 1996; Ph.D., 2000.

Yocum Mize, Sandra (1992), Religious Studies, Associate Professor - B.A., University of Oklahoma, 1976; Ph.D., Marquette University, 1987.

Yoder, Donald D. (1989), Communication, Associate Professor - B.S., Iowa State University, 1973; M.A., University of Nebraska-Lincoln, 1975; Ph.D., The Ohio State University, 1982.


Zabinski, Jeffrey S. (1993), Chemical and Materials Engineering, Adjunct Professor - B.S.Ch.E., University of Florida, 1982; Ph.D., Auburn University, 1990.


Zhan, Qiwen (2002), Electro-Optics, Assistant Professor - B.S., University of Science and Technology of China, 1996; M.S.E.E., University of Minnesota, 2000; Ph.D., 2002.

Zink, Julie (2006), School of Law, Assistant Professor of Lawyering Skills - B.A., Wright State University, 1996; J.D., University of Dayton School of Law, 1999.


Research Institute Staff

Abfalter, Garry H. (1988), Senior Research Engineer-BME, University of Detroit, 1968; M.S., Oklahoma State University, 1972.


Bai, Zongwu (2003), Research Scientist-B.S., Hebei University of Technology, 1983; M.S., 1988; Ph.D., Beijing University, 1995.


Blosser, Philip E. (2002), Associate Research Test Engineer-B.S., Wright State University, 1984.


Bohun, Michael H. (1999), Research Engineer-B.S., Purdue University, 1977; M.S., Air Force Institute of Technology, 1981.


Bowen, Loryn L. (2005), Associate Research Biologist-B.S., Oklahoma State University, 1998.


Byrd, R. Alan (2004), Senior Research Engineer-B.S., Georgia Institute of Technology, 1982; M.S., 1983.


Chen, Chenggang (2000), Senior Research Scientist-B.S., Hangzhou University, 1987; M.S., Zhejiang University, 1989; Ph.D., Case Western Reserve University, 1999.

Chen, Christina (2003), Senior Research Engineer-B.S., Guangxi University, 1978; M.S., Institute of Metal Research, 1983; Ph.D., University of Dayton, 1993.


Culhane, William J. (2003), Senior Research Coatings Scientist-B.S., California State University, 1976; M.S., North Dakota State University, 1982; M.S., Northwestern University, 1985.

Danielson, Jack W. (1996), Part-Time Senior Business Manager-B.S., Penn State University, 1961; M.B.A., University of Southern California, 1969; Ph.D., California Coast University, 1999.


DeWitt, Matthew J. (2001), Group Leader-Senior Research Engineer-B.S., Ohio State University, 1994; Ph.D., Northwestern University, 1999.


Erdahl, Dathan S. (2004), Research Engineer-B.S., University of Dayton, 1997; M.S., Georgia Institute of Technology, 2000; Ph.D., 2005.


Fox, Jeffrey A. (1974), Group Leader-Distinguished Research Engineer-B.S., Wright State University, 1979; M.S., 1989.


Fry, Timothy J. (2004), Senior Research Engineer-B.S., University of Illinois Urbana, 1966; M.S., 1966; Ph.D., University of Dayton, 1996.


Glenchur, Thomas (2005), Process Engineer-B.S., University of California, 1979; M.S., University of Cincinnati, 1985.


Griffin, Charles W. (2002), Associate Research Field Support Specialist.


Han, Ken (2005), Senior Composites Engineer-B.S., Beijing University of Chemical Technology, 1975; M.S., 1982; M.S., Ohio State University, 1991; Ph.D., 1994.


Harris, Bryan W. (2004), Associate Research Engineer-B.S., Ohio State University, 2002.

Harris, Richard J. (1995), Research Engineer-B.S. Miami University, 1967;
M.S., Yale University, 1968.


Higgins, James D. (1999), Associate Research Engineer.


Hoeffel, James D. (2003), Part-Time Senior Research Engineer-B.S., University of Dayton, 1959; M.S., Ohio State University, 1965.


Holthaus, Dennis F. (1979), Group Leader-Associate Safety Coordinator/Facilities Coordinator.


Huelsman, Marc A. (1992), Senior Research Engineer-B.S., University of Dayton, 1992; M.S., 1996.


Hurwitz, Myles M. (2005), Distinguished Research Scientist-B.S., Boston University, 1966; M.S., University of Maryland, 1971.


Johnson, David A. (2005), Senior Research Engineer-B.S., Baylor University, 1994; B.S., University of Dayton, 1989; M.S., 1993; M.S., Harvard University, 1997; Ph.D., 2004.

Johnson, Jay M (2000), Group Leader-Senior Research Chemist-B.S., Miami University, 1971; M.S., Wright State University, 1976; Ph.D., University of Cincinnati, 1981.


Kang, Ji Ho (2005), Associate Research Engineer Post Doctorate-B.S., Korea Advanced Institute of Science and Technology, 1997; M.S., 1999; Ph.D., 2005.


Kim, Jai-Who (2005), Senior Research Engineer-B.S., Yonsei University, 1986; M.S., 1988; M.S., University of Delaware, 1993; Ph.D., University of Utah, 1995.


Kingshime, Christopher D. (2006), Associate Research Engineer-B.S., Wright State University, 2001; M.S., 2004.


Kramer, Daniel P. (2004), Group Leader-Senior Research Scientist-B.S., Rutgers University, 1974; M.S., MIT, 1976; M.S., Rutgers University, 1979; Ph.D., 1979.


Lawson, Jacob W. (2004), Associate Research Engineer-B.S., Wright State University, 2002.

Lee, Don (2002), Senior Materials Scientist-B.S., Shandong University, 1962.


Li, Lingchuan (2004), Associate Research Scientist-B.S., University of Science and Technology Beijing, 1987; M.S., 1989; Ph.D., 1994.
Lin, Lanchao (2005), Heat Transfer Engineer-B.S., Nanjing University of Technology, 1982; M.S., 1987; Ph.D., University of Stuttgart, 1995.


Miedlar, Peggy G. (1986), Senior Research Engineer-B.S., University of Notre Dame, 1981.


Morgan, Alexander B. (2005), Senior Research Engineer-B.S., Virginia Military Institute, 1994; Ph.D., University of South Carolina, 1998.

Murray, Paul T. (1982), Senior Research Chemist-B.S., University of Cincinnati, 1974; Ph.D., University of North Carolina, 1979.


Orazio, Fred D. (2006), Part-Time Senior Optics Scatter Specialist-B.S., Purdue University, 1968.


Park, Jin Woo (2005), Associate Research Engineer Post Doctorate-B.S., Seoul National University, 1996; M.S., 1998; Ph.D., 2003.


Powar, Nilesh U. (2003), Associate Research Software Engineer-B.S., Bombay University, 1999; M.S., Wright State University, 2002.
Price, Gary E. (1965), Associate Research Engineer-Associate-Franklin University, 1965.
Rice, Brian Patrick (1986), Group Leader-Distinguished Research Engineer-B.S., Ohio State University, 1986; M.S., University of Dayton, 1990.
Saba, Costandy S. (1976), Group Leader-Distinguished Research Chemist-B.A., Messiah College, 1968; M.S., Ohio State University, 1971; Ph.D., 1974.
Sathish, Shamachary (1996), Senior Research Engineer-B.S., Yuvaraja College, 1974; M.S., University of Mysore, 1976; Ph.D., 1984.
Sidhu, Sukhjinder S. (1992), Senior Research Engineer-B.S., Osmania University, 1987; M.S., University of Illinois, 1991; Ph.D., 1992.
Skinn, Donald A. (1979), Senior Research Programmer-B.A., Ohio State
University, 1975.


Smith, Howard E. (2002), Senior Research Scientist-B.S., DePauw University, 1980; M.S., Cornell University, 1982; Ph.D., 1986.

Smith, Rachel R. (2003), Associate Research Scientist-B.S., Wright State University, 2001; M.S., 2003.


Stubbs, David A. (1990), Group Leader-Senior Research Engineer-B.S., Miami University, 1980; M.S., 1981.


Sturgill, Jeffrey A. (1993), Research Engineer-B.S., University of Toledo, 1988; B.S., Wright State University, 1993.

Swindeman, Michael J. (2004), Senior Research Engineer-B.S., University of Tennessee, 1993; M.S., University of Illinois, 1995.


Thomas, Ronald L. (1999), Internet/Programmer Analyst.


Toth, Douglas K. (1990), Research Lubricants Engineer-B.S., Southern Methodist University, 1987; M.S., Case Western Reserve University, 1989.


Vukelich, Sharon L. (2003), Senior Research Engineer-B.S., Michigan State University, 1974; M.S., University of Cincinnati, 1980.


Walters, Larrell B. (2003), Director of Technology Partnerships-B.S.,
Bowling Green State University, 1978; M.S., Kent State University, 1985.
Wang, Huabin (2003), Research Scientist-B.S., Nankai University, 1990; M.S., Changchun Institute, 1993; Ph.D., University of Akron, 1999.
West, Zachary J. (2004), Associate Research Engineer-B.S., Tri-State University, 2001; M.S., University of Dayton, 2004.
Williams, Theodore F. (1990), Group Leader-Senior Research Engineer-B.S., University of Dayton, 1982.
Yoon, Yuhchae (2006), Research Scientist-B.S., Yonsei University, 1996; M.S., 1998; M.S., Ohio State University, 2002; Ph.D., 2004.
Zhou, Eric Guangming (2005), Associate Research Engineer-B.S., China Textile University, 1986; M.S., Kansas State University, 1999.
Academic Information

In this section, you can locate specifics on various academic areas, and the programs and courses they offer.

Use the menu to the right to explore by department/program, major/minor, or courses. These search options produce three common elements: a description, a list of majors and minors, and a list of courses. Each of these elements can be collapsed or expanded. The main elements can be expanded and collapsed by using the link directly to the right of the element title. Individual majors and minors and individual courses can be expanded and collapsed by using the + / - box to the left of the individual item title.

You can print any page of content by clicking the icon that will be located at the top of the page, directly to the right of the page title. The displayed material will be reformatted into a print-friendly version.
School of Business Administration

(ACC) Accounting (Collapse Description)

The mission of the Department of Accounting is to prepare our students for successful professional careers by providing high quality educational programs in accounting within an environment that connects learning, scholarship, leadership, and service creating distinctive graduates able to add value to employers, clients, and society.

An accounting major must earn credit in at least seven upper-level accounting courses. Six specific courses are required: ACC 303, 305, 306, 341, 401, and 420. One additional accounting course is typically required. All upper-division accounting courses require a minimum grade of "C" in all prerequisite accounting courses, except that ACC 303 and ACC 305 require a minimum of "C+" in ACC 207 and ACC 208. Students should consult with their academic advisor about selecting accounting and other elective courses appropriate to particular career goals. Students should also consult their advisor or the chairperson about professional work-experience, double majors and minors, foreign exchange opportunities, requirements for professional examinations (e.g., CPA), etc.

Students may complete a 150 semester hour program required to become a CPA in Ohio and numerous other states. The MBA program, with an optional concentration in accounting, is particularly useful in this regard. Our integrated B.S./M.B.A. program allows for the completion of both degrees, plus professional work experience, foreign exchange experience and a second major or minor, in five years. Consult the department chairperson or an advisor for more information.

Faculty

Ronnie J. Burrows, Chairperson
Professors Emeriti: Clark, Eley, Fioriti, Roehm, Rosenzweig
Mahrt Chair in Accounting: Donna Street
Professors: Castellano, Street
Associate Professors: Brady, Burrows, Geary, Greenlee, Larson
Lecturers: Shankar, Shishoff

Majors/Minors (Collapse All)

Major/Minor Name
Bachelor of Science with a major in Accounting (ACC)

First-Year

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<td>BAI 150</td>
<td>BUSINESS EDUCATIONAL PLANNING</td>
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<td>BAI 151</td>
<td>BUSINESS INTEGRATION EXPERIENCE</td>
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<td>ENG 102</td>
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<td>HST 103</td>
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<td>MTH 129</td>
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<td>PHIL 103</td>
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Physical and Life Science elective

Social Science elective

Sophomore-Year

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Search Academic Information General Information

Explore by Department / Program:

Accounting
Air Force Aerospace Studies, ROTC
American Studies
Biology

Explore by Major / Minor:

Accounting (ACC)
Adolescence to Young Adult Education (EYA)
African Studies (AFS)
American Studies (AMS)

Explore by Courses:

Accounting (ACC)
Air Force Aerospace Studies, ROTC (AES)
American Studies (AMS)
Anthropology (ANT)
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**Junior-Year**

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<td>MGT 301 ORGANIZATIONAL BEHAVIOR</td>
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<td>MIS 301 INFORMATION SYSTEMS IN ORGANIZATIONS</td>
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<td>MKT 301 PRINCIPLES OF MARKETING</td>
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<td>ACC 341 ACCOUNTING INFORMATION SYSTEMS I</td>
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<td>FIN 301 BUSINESS FINANCE</td>
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<td>OPS 301 SURVEY OF OPERATIONS MANAGEMENT</td>
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<tr>
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<td>PHIL 313 BUSINESS ETHICS (PHIL 313) or REL CHRISTIAN ETHICS AND THE BUSINESS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or REL 368 WORLD (REL 368)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Senior-Year**

<table>
<thead>
<tr>
<th>Term</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Term</td>
<td>ACC 401 AUDITING PRINCIPLES</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ACC 420 FEDERAL INCOME TAXATION</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MGT 490 MANAGING THE ENTERPRISE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Arts Study elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General elective</td>
<td>3</td>
</tr>
<tr>
<td>Second-Term</td>
<td>ACC elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECO elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHIL or REL elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General elective</td>
<td>3</td>
</tr>
</tbody>
</table>

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1. A proficiency test for BAI 103L is available for those with an adequate background.
2. CMM 110, 111 and 113 may be taken during different years than indicated here. Some academic majors recommend taking some of these courses during the junior year. See faculty advisor for other sequencing possibilities.
3. Students placed in ENG 114 or 198 must take a three semester hour nonbusiness elective.
4. MTH 102 is recommended to be taken before MTH 128 for students with insufficient knowledge of secondary mathematics. MTH 102 does not count toward minimum graduation requirement.
5. SBA majors must complete six hours of physical and life sciences. Select from biology, chemistry, physics, or geology. Majors may complete two introductory courses from different disciplines. No lab is required.
6. SBA majors must complete an additional social science course in ANT, CJS, POL, PSY, SOC, or SWK; in addition to completing ECO 203 and 204, and an economics elective.
Students starting Fall 2005: Select from ENG 370, ENG 372, or ENG 378.
Students enrolled before Fall 2005: Select from ENG 370, ENG 372, ENG 378, CMM 321, CMM 322, CMM 344, CMM 351, or CMM 420.
8 May be waived, and replaced by general electives, for students electing to complete a combined B.S. with a major in accounting and an MBA. Consult an advisor or the chair of the department for details.
9 A minimum of 54 sem. hrs. of all academic work must be at the 300-400 level. Students completing the combined BS/MBA program should likely schedule additional MBA courses. Consult with your accounting advisor.
10 Accounting majors completing a second major in the SBA can often substitute or waive one or more courses. Consult an advisor for further information.

Minor in Accounting (ACC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 207</td>
<td>INTRODUCTION TO FINANCIAL ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td>ACC 208</td>
<td>INTRODUCTION TO MANAGERIAL ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td>ACC 305</td>
<td>INTERMEDIATE FINANCIAL ACCOUNTING I</td>
<td>4</td>
</tr>
<tr>
<td>ACC 306</td>
<td>INTERMEDIATE FINANCIAL ACCOUNTING II</td>
<td>3</td>
</tr>
<tr>
<td>ACC electives¹</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

¹ In consultation with the chairperson.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 200</td>
<td>INTRODUCTION TO ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to primarily financial and secondarily managerial accounting concepts, terminology, purposes, and applications for the nonbusiness student. Not open to students in the School of Business Administration or to those with credit in ACC 207.</td>
<td></td>
</tr>
<tr>
<td>ACC 207</td>
<td>INTRODUCTION TO FINANCIAL ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to financial accounting concepts, procedures, and terminology. The accounting framework for recording transactions and reporting to parties external to the organization.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): (BAI 103L or equivalent (may be taken as a corequisite); sophomore standing) or permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>ACC 208</td>
<td>INTRODUCTION TO MANAGERIAL ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Management use of accounting data in planning and controlling organization activities; cost accounting and analysis of data for management decision making.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): ACC 207; BAI 103L or equivalent.</td>
<td></td>
</tr>
<tr>
<td>ACC 300A</td>
<td>PRINCIPLES OF FINANCIAL ACCOUNTING</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>An introduction to the concepts and procedures underlying financial accounting and financial statements, and the use of financial accounting information for decision making. Credit may not be earned for both ACC 300A and either ACC 200 or ACC 207.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): Engineering major; sophomore standing; permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>ACC 300B</td>
<td>PRINCIPLES OF MANAGERIAL ACCOUNTING</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>An introduction to the concepts underlying the preparation and use of accounting data by managers as they plan, control, and make decisions within an organization. Credit may not be earned for both ACC 300B and ACC 208.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): Engineering major; sophomore standing; permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>ACC 303</td>
<td>MANAGERIAL ACCOUNTING</td>
<td>3</td>
</tr>
</tbody>
</table>
The production, dissemination, and interpretation of financial information for use within an organization. Information for planning, decision making, and control. Study of typical cost accounting systems in various organizations. **Prerequisite(s):** (ACC 207, 208 with minimum grades of "C+"; junior standing) or permission of department chairperson.

**ACC 305** **INTERMEDIATE FINANCIAL ACCOUNTING I**

Part I (part II in ACC 306) of a comprehensive treatment of financial accounting concepts, principles, and procedures used in the preparation and analysis of financial statements. **Prerequisite(s):** (ACC 207, 208 with minimum grades of "C+"; junior standing) or permission of department chairperson.

**ACC 306** **INTERMEDIATE FINANCIAL ACCOUNTING II**

Part II of comprehensive treatment of financial accounting concepts, principles, and procedures used in the preparation and analysis of financial statements. **Prerequisite(s):** ACC 305.

**ACC 341** **ACCOUNTING INFORMATION SYSTEMS I**

Study of designs of accounting systems, including their impact on management decision making and control. Emphasis on (1) a systems approach to the flow of data, (2) system internal control, and (3) computer applications in accounting. **Prerequisite(s):** (ACC 207, 208) or permission of department chairperson. **Corequisite(s):** ACC 305; (MIS 301 or permission of department chairperson).

**ACC 401** **AUDITING PRINCIPLES**

Study of the concepts, standards, and procedures used to judge and report on the degree of correspondence between quantifiable information and established criteria; the ethical regulatory and professional responsibilities of the auditor and introduction to internal, operational, and governmental auditing. **Prerequisite(s):** ACC 306, 341 (may be taken as corequisites with permission of department chairperson).

**ACC 402** **ACCOUNTING FOR NOT-FOR-PROFIT ORGANIZATIONS**

Study of the principles, techniques, and procedures related to financial reporting of governmental units and other not-for-profit entities.

**ACC 404** **ADVANCED STRATEGIC COST MANAGEMENT**

Study of processes focused on strategic cost management. Topics include balanced scorecards, activity-based costing and management, target costing and the use of statistical process control as related to organizational processes and performance measurement and control systems. **Prerequisite(s):** (ACC 303; OPS 301) or permission of department chairperson.

**ACC 408** **ADVANCED FINANCIAL ACCOUNTING**

Study of the principles and procedures in accounting for specialized uses in business combinations, consolidations, government and other not-for-profit entities, multinational companies, and foreign currency transactions. **Prerequisite(s):** ACC 305.

**ACC 412** **INTERNATIONAL ACCOUNTING**

Introduction to issues of international business as they relate to accounting: accounting practices in selected countries, and activities of the International Accounting Standards committee. **Prerequisite(s):** ACC 305 or permission of department chairperson.

**ACC 420** **FEDERAL INCOME TAXATION**

Study of federal income tax laws and their application to individuals, partnerships, and corporations. The historical, social, economic, and political influence on taxation laws are emphasized. Consideration is given to legal, moral, business, and personal factors involved in taxation. **Prerequisite(s):** ACC 305 or ACC 208 with permission of department chairperson.
ACC 421  TAXES AND BUSINESS STRATEGY
Primary emphasis is given to developing a framework that articulates how effective tax planning affects business decisions. An advantage of the framework over a strictly rules-based course is that it can be applied to current and future tax regimes, as well as across tax jurisdictions. Significant emphasis is given to understanding how to account for income taxes for financial statement purposes. Although not a rule-based course per se, application of the effective tax planning framework to cases and problem-solving exercises will increase students' knowledge of U.S. tax rules and the factors that shape them.
Prerequisite(s): ACC 305, 420.

ACC 430  LAW FOR THE ACCOUNTING PROFESSION
Study of major laws affecting the public and private practice of accounting: contracts, property, commercial code, bankruptcy, business organizations, legal responsibility, and government regulations. Credit does not apply to requirements for ACC major.
Prerequisite(s): ACC 208; MGT 203; permission of department chairperson.

ACC 441  ACCOUNTING INFORMATION SYSTEMS II
Examination of accounting systems with exposure to systems design and evaluation, complex spreadsheet applications, decision support systems, and data base management applications.
Prerequisite(s): ACC 341 or permission of instructor.

ACC 491  HONORS THESIS
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of program director and chairperson.

ACC 492  HONORS THESIS
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of program director and chairperson.

ACC 497  PROFESSIONAL WORK EXPERIENCE
Supervised accounting work experience in association with a participating public accounting, industrial, commercial, educational, health-care, or governmental organization. May be used for general elective credit only. Option two grading only. Maximum of three credits toward graduation requirements. Permission of chairperson required.

ACC 499  INDEPENDENT STUDY IN ACCOUNTING
Directed readings, independent study, and research projects in selected fields of accounting. Periodic conferences with instructor.
Prerequisite(s): Senior status in accounting; permission of department chairperson and instructor.
College of Arts and Sciences

(AES) Air Force Aerospace Studies, ROTC

As a University of Dayton student, you have the opportunity to become an Air Force officer through a cooperative agreement with Wright State University's Department of Aerospace Studies. We offer the Air Force Reserve Officer Training Corps (ROTC) program to full-time University of Dayton students pursuing a baccalaureate degree. While all courses are taken through the University of Dayton, leadership laboratories and classes for junior and senior years are typically taught at Wright State University, the host site of the area Air Force ROTC detachment.

The Air Force ROTC program is designed to produce Air Force officers who will be successful leaders and managers. All officers will be placed in positions of responsibility, facing challenging and rewarding career opportunities while using the most advanced technology in the world.

The Air Force ROTC program is organized in two portions: the General Military Course (GMC), typically taken during freshman and sophomore years, and the Professional Officer Course (POC), usually taken during junior and senior years or during the last two years prior to graduation. At a minimum, officers will need to complete the POC portion of the program.

- The GMC is a no-obligation introduction to the Air Force. The course covers the development and history of air power and the organization of the contemporary United States Air Force.

- The POC curriculum covers communicative skills, Air Force management and leadership, American defense policy, and regional world studies. Air Force ROTC students have additional opportunities to participate in challenging and rewarding activities that include piloting a sail-plane, trips to air force bases, orientation flights, official military functions and ceremonies, and one-on-one mentoring with an active duty Air Force officer.

This program is open to all majors. All Air Force ROTC students have the opportunity to apply for scholarships that pay partial or full tuition, books, and fees, plus a $250 - $400 monthly stipend depending on your progress in the program. These scholarships are available on a competitive basis to students who demonstrate academic and leadership potential. Scholarships with the greatest availability are in the areas of engineering, mathematics, computer science, and physics. High school students should apply for a scholarship no later than December 1st of their senior year. Apply at www.afrotc.com. In-college students will apply for scholarships through their Air Force ROTC instructor. If you are a freshman or sophomore seeking a challenge or wish to give Air Force ROTC a trial run, sign up for the Aerospace Studies 121 course. All other students should contact the Department of Aerospace Studies, Wright State University, Dayton, Ohio 45435, phone: 937-775-2730, email: afrotc@wright.edu (website: www.wright.edu/academics/prog/rotc/home.htm), or the University of Dayton Admissions Office at 1-937-229-1000 or e-mail: info@udayton.edu.

Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AES 120</td>
<td>General Military Course (GMC), Leadership Laboratory</td>
<td>0</td>
</tr>
<tr>
<td>AES 121</td>
<td>Applied Air Force Reserve Officer Training Corps (AFROTC) training. This lab provides an opportunity for students to apply Air Force procedures, techniques, and knowledge. Students will learn the Air Force organizational structure as well as customs and courtesies. GMC cadets will also develop their followership and teamwork skills in a cadet led, cadre supervised Lab environment. Requires participation in two weekly physical training sessions. Taken concurrently with 100-level AES courses. (Pass/Fail)</td>
<td>1</td>
</tr>
</tbody>
</table>

Aerospace Studies: Foundations of the United States Air Force
A survey course designed to introduce students to the United States Air Force and the Air Force Reserve Officer Training Corps (AFROTC). Featured topics include the mission and organization of the Air Force, officerhood and professionalism, military customs and courtesies, Air Force officer career opportunities, group leadership problems, and an introduction to communication skills.

**Corequisite(s):** AES 120.

AES 122 Aerospac e Studies: Foundations of the United States Air Force II

A survey course designed to introduce students to the United States Air Force and the Air Force Reserve Officer Training Corps (AFROTC). Featured topics include the mission and organization of the Air Force, officerhood and professionalism, military customs and courtesies, Air Force officer career opportunities, group leadership problems, and an introduction to communication skills.

**Corequisite(s):** AES 120.

AES 220 Field Training Preparation (FTP) Leadership Laboratory

Applied Air Force Reserve Officer Training Corps (AFROTC) training. This lab further develops skills and concepts introduced in the General Military Course Leadership Laboratory. Students are prepared mentally and physically for the demanding requirements of upcoming Field Training summer program. Training is cadet led where students will display their ability to apply Air Force concepts and procedures. Requires participation in two weekly physical training sessions. Taken concurrently with 200-level AES courses. (Pass/Fail)

**Corequisite(s):** AES 220.

AES 221 Aerospac e Studies: Evolution of United States Air Force, Air and Space Power I

A survey course designed to provide students with an overview of the general aspects of air and space power through a historical perspective. It begins with the first military application of balloons through the actions in Afghanistan and Iraq. It also shapes communication skills introduced in the freshman year.

**Corequisite(s):** AES 220.

AES 222 Aerospac e Studies: Evolution of United States Air Force, Air and Space Power II

A survey course designed to provide students with an overview of the general aspects of air and space power through a historical perspective. It begins with the first military application of balloons through the actions in Afghanistan and Iraq. It also shapes communication skills introduced in the freshman year.

**Corequisite(s):** AES 220.

AES 330 Intermediate Cadet Leadership (ICL) Laboratory: Applied Air Force ROTC Training

The ICL lab builds the foundation of leadership skills required as an Air Force Officer. Cadets apply leadership/management concepts learned in Field Training and previous aerospace studies classes and labs to assist in training the General Military Course cadets. Requires participation in two weekly physical training sessions. Taken concurrently with 300-level AES courses. (Pass/Fail)

**Corequisite(s):** AES 330.

AES 331 Aerospac e Studies: Air Force Leadership Studies I

This course is a study of quality leadership and management fundamentals, professional military knowledge, Air Force doctrine, leadership ethics, and communication skills. Students use case studies to examine Air Force leadership and management situations.

**Prerequisite(s):** AES 330.

AES 332 Aerospac e Studies: Air Force Leadership Studies II

This course is a study of quality leadership and management fundamentals, professional military knowledge, Air Force doctrine, leadership ethics, and communication skills. Students use case studies to examine Air Force leadership and management situations.

**Corequisite(s):** AES 330.
### AES 430: Senior Cadet Leadership (SCL) Laboratory: Applied Air Force ROTC Training

This lab prepares students for progression into active duty life. As in the Intermediate Cadet Leadership Lab, students take leadership roles in execution of leadership labs for the cadet wing. Students hone leadership fundamentals learned in previous courses and labs to a level commensurate to entry into the active duty Air Force. Requires participation in two weekly physical training sessions. Taken concurrently with 400-level AES courses. (Pass/Fail)

### AES 431: Aerospace Studies: National Security Affairs and Preparation for Active Duty I

This course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Topics focus on the military as a profession, officership, military justice, civilian control of the military, and current issues. Considered the capstone ROTC course with continued refinement of communication skills.  
**Corequisite(s):** AES 430.

### AES 432: Aerospace Studies: National Security Affairs and Preparation for Active Duty II

This course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Topics focus on the military as a profession, officership, military justice, civilian control of the military, and current issues. Considered the capstone ROTC course with continued refinement of communication skills.  
**Corequisite(s):** AES 430.
College of Arts and Sciences

(AMS) American Studies  (Collapse Description)

In this interdisciplinary program, students take courses in their choice of eleven fields, thereby learning the skills of integrating, coordinating and making connections. The program, one of over three hundred nationwide, is most appropriate for those whose interests encompass several traditional majors.

American Studies Committee

Una M. Cadegan (History), Director
Durham (English), Kimble (Psychology), Moore (Religious Studies),
Ruggiero (Economics), Street (Music)

Majors/Minors

Major/Minor Name

Bachelor of Arts with a major in American Studies (AMS)

<table>
<thead>
<tr>
<th>Groups</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sem. Hrs.</td>
<td></td>
</tr>
<tr>
<td>American Studies</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>AMS 300, 301, 400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First area courses</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Select courses from group A or B or C</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Select supporting courses in the elected disciplines</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Second area courses</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Select from one of the two remaining groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third area courses</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Select from the remaining group</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Groups

Group A

MUS 304, 305, 306, 307, 327, 328, 404
VAH 370, 480, 482, 483, 490

Group B

PHL 307, 310, 311, 314, 317, 318, 320, 323, 331, 332, 340, 361
REL 326, 327, 328, 364, 367, 372, 373, 375, 376, 485

Group C

ANT 315, 335, 449
ECO 310, 345, 347, 390, 441, 442, 445, 460, 461, 471, 485
POL 301, 303, 310, 311, 313, 314, 316, 335, 350, 360, 408, 411, 413, 450
PSY 334, 341, 351, 361, 363, 443, 461, 462, 471
SOC 321, 328, 337, 339, 341, 343, 351, 352, 435
Liberal Studies Curriculum

Humanities and Fine Arts

- Philosophy and Religious Studies: 12
- History: 6
- Literature: English or Foreign Language: 3
- Creative and Performing Arts: 3
- Foreign Language and/or Additional Arts and/or Humanities (may include courses from group A & B): 3-9

Social Sciences: 12

Mathematics (excludes MTH 102, 204, 205): 3

Natural Sciences: 11

Communication Competencies: 0-9

Introduction to the University: ASI 150: 0-1

General Education courses/academic electives to total at least: 125

1This course can be counted only when the material is appropriate to American Studies. Consult program director.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 300</td>
<td>AMERICAN CULTURES</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of American artifacts to discern how they indicate the periods in the life of the civilization and how like artifacts can be used to determine the stages of development of various peoples. (Will not satisfy humanities breadth requirement.)</td>
<td></td>
</tr>
<tr>
<td>AMS 301</td>
<td>INTERPRETATIONS OF AMERICAN CULTURE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Critical study of various interpretations of American culture through more than a hundred years</td>
<td></td>
</tr>
<tr>
<td>AMS 400</td>
<td>INTERDISCIPLINARY RESEARCH</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the principles of interdisciplinary scholarship; what can and probably cannot be accomplished by it; successful interdisciplinary accomplishments. Students will complete interdisciplinary projects</td>
<td></td>
</tr>
<tr>
<td>AMS 477</td>
<td>HONORS THESIS PROJECT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for 3 semester hours each in two separate disciplines in consultation with the department chairpersons. <strong>Prerequisite(s):</strong> Approval of University Honors Program</td>
<td></td>
</tr>
<tr>
<td>AMS 478</td>
<td>HONORS THESIS PROJECT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for 3 semester hours each in two separate disciplines in consultation with the department chairpersons. <strong>Prerequisite(s):</strong> Approved 477 and approval of University Honors Program</td>
<td></td>
</tr>
</tbody>
</table>
College of Arts and Sciences
(BIO) Biology (Collapse Description)

The Bachelor of Science program in biology is designed to prepare a student for a career in the life sciences. Graduates of the program are competitive for entry into graduate programs in biology as well as professional schools, such as medical, dental, osteopathic, and veterinary science.

The department has two primary areas of focus: environmental/ecological science and basic biomedical science. The former includes ecology, population biology, ecological physiology, animal behavior, environmental microbiology, community and restoration ecology, entomology and analysis of biological data, evolutionary biology, and plant physiology, as well as environmental biology in the narrow sense. The biomedical science course offerings include molecular biology, cell biology, general and medical microbiology, immunology, genetics, mammalian physiology, and developmental biology.

In addition, advanced undergraduates may enroll in graduate courses for undergraduate credit with the consent of the chairperson.

In line with the two areas of research interests, the department encourages students (in consultation with their advisors) to declare one of the two as an area of concentration of study no later than the end of their sophomore year. For the student more interested in a broad approach to biology, the department recommends a third option, the general biology option (any combination of upper-level biology courses that fulfills the program requirements).

The department offers a research mentorship program for upper-level students majoring in biology. The program allows a student to work closely with both faculty and graduate students in laboratory and/or field research. Participation in the program is based on the recommendation of a member of the faculty. The mentorship program is designed to provide a significant advantage for those students who intend to enter a graduate program.

A minor in biology consists of twenty semester hours.

Faculty

Jayne B. Robinson, Chairperson
Distinguished Service Professor: Noland
Professors Emeriti: Chantell, Laufersweiler, Ramsey
Professors: Burky, Geiger, Kearns, Robinson, Rowe, Tsonis, Williams
Associate Professors: Breitwisch, Friese, Hofmann, D. Wright, S. Wright
Assistant Professors: Gadagkar, Hong, Krane, Nielsen
Adjunct Faculty: Benbow, Del Rio-Tsonis
Lecturers: Dillon, Kavanaugh, Kcco

Majors/Minors (Collapse All)

Major/Minor Name

Bachelor of Science with a major in Biology (BIO)

<table>
<thead>
<tr>
<th>Biology</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 151, 151L, 152, 152L, 299, 310, 312, 420</td>
<td>16</td>
</tr>
<tr>
<td>Environmental/Ecological (select two)</td>
<td>7</td>
</tr>
<tr>
<td>Basic Biomedical (select two)</td>
<td>7</td>
</tr>
</tbody>
</table>

Electives: Four courses, two with accompanying laboratories, from the above groups.  

| Breadth Requirement |  
|---------------------|---|
| Natural Sciences    | 24 |
| CHM 123-123L, 124-124L, 313-313L, 314-314L |  
| PHY 201-201L, 202-202L |  
| Mathematics         | 6 |
| MTH 148-149         |  
| Social and Behavioral Sciences | 6 |
| Humanities          | 9 |
| Philosophy and Religious Studies | 12 |
| General electives   | 8-9 |

<table>
<thead>
<tr>
<th>Communication Competencies</th>
<th>0-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the University: ASI 150</td>
<td>0-1</td>
</tr>
<tr>
<td>General Education courses/academic electives to total at least</td>
<td>120</td>
</tr>
</tbody>
</table>

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1. The Department of Biology supports national standards established by the National Institutes of Health for the responsible, humane treatment and housing of animals. The biology curriculum contains some laboratory courses in which dissection and vivisection are necessary and required in order to convey an understanding of certain biological concepts. All students are expected to participate in such laboratory exercises in the introductory biology sequence, BIO 151L and BIO 152L which involve dissection and/or vivisection. In other elective formal laboratory courses in which dissection and vivisection occur, it is expected that students will participate in all aspects of the laboratory. No alternatives to dissection or vivisection will be offered in these courses. It is ultimately the responsibility of students to make certain that they enroll in courses in which they are able to participate in all required exercises, and to obtain information from each instructor as to the specific laboratory course content and requirements. The Biology Department maintains an updated list of laboratory courses in which dissection and/or vivisection is required in order to assist students in the selection of course work.

2. One with accompanying laboratory. BIO 462 strongly recommended as one of two courses.

3. Qualifies as a laboratory elective for any category.

4. One of the following Non-BIO science courses may include CHM 201/201L; CHM 420; MTH 367; CPS 111, CPS 132; GEO 208; GEO 308. Other Non-BIO science courses may be included with the approval of the chairperson.

5. HST 340, 341 or 342 are highly recommended.

Bachelor of Science with a major in Environmental Biology (EVB)

Environmental biology is a science specialization based upon the fundamentals of biology and ecology, applying interdisciplinary skills, knowledge and principles to the environmental problems facing society today. Students entering this dynamic field could become directly involved in addressing some of the significant global problems related to human impact on the environment. In addition to the standard base of courses required of most biology majors, the curriculum also requires a challenging core of environmentally related science courses and course work drawn from a multidisciplinary elective pool that includes offerings in the humanities and social sciences.

Internship Program: Majors will participate in the EVB internship program (BIO 499, see course prerequisites), where they will have the unique opportunity to obtain valuable training and experience under the mentorship of established scientists and other environmental professionals.

<table>
<thead>
<tr>
<th>Environmental Biology</th>
<th>Sem. Hrs.</th>
<th>46</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 151-151L, 152-152L, 299, 310-310L, 312, 420, 459, 479L, 499</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>
Field Oriented Courses (select three)


Laboratory Oriented Courses (select three)


Breadth Requirement

Natural Sciences
CHM 123-123L, 124-124L, 313-313L, 314-314L
GEO 115-115L, 116-116L
PHY 201-201L, 202-202L
Mathematics, Computer Science
MTH (148-149 or 168-169)
D75
Social and Behavioral Sciences
- - - (ANT 150 or PSY 101)
And elective
Humanities
Philosophy and Religious Studies

Communication Competencies

Elective

Other non-science elective

Introduction to the University: ASI 150

General Education courses/academic electives to total at least

Minor in Biology (BIO)

Biology

BIO 151-151L, 152-152L, 310, 312

Select six additional semester hours (300- or 400-level)

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>GENERAL BIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>BIO 101L</td>
<td>GENERAL BIOLOGY LABORATORY</td>
<td>1</td>
</tr>
</tbody>
</table>

1 At least two courses with accompanying laboratory. One non-BIO science course approved for science majors may be included in this section with permission. BIO 499 requires the permission of the EVB Program Director.
2 Qualifies only as a laboratory elective; satisfies either BIO laboratory elective area.
3 At least one course with accompanying laboratory. One non-BIO science course approved for science majors may be included in this section with permission. BIO 499 requires the permission of the EVB Program Director.
4 MTH 168 - MTH 169 by placement.
5 Other appropriate statistics courses may be substituted with the approval of the Department Chairperson.
6 If composition requirement is waived, student should select another elective from the Liberal Studies Curriculum. ENG 378 strongly recommended for students whose background is weak in this area.
Course to accompany BIO 101. One two-hour laboratory each week stressing the investigational and experimental approach.

BIO 102  GENERAL BIOLOGY II
A continuation of BIO 101, stressing primarily the operational aspects of living matter.  
Prerequisite(s): BIO 101.

BIO 102L  GENERAL BIOLOGY LABORATORY II
Course to accompany BIO 102. One two-hour laboratory each week.

BIO 104  INTRODUCTORY BIOLOGY FIELD COURSE
An introduction to the ecology, behavior, morphology, taxonomy, and life history of plants and animals. One week on campus; three weeks in the Rocky Mountains near Denver, Colorado; one week of travel to and from the field site. For non-biological science majors only. Third term only.  
Corequisite(s): GEO 104; (BIO 104L or GEO 104L).

BIO 104L  INTRODUCTORY BIOLOGY FIELD LABORATORY
Field trip laboratory in the biological sciences to accompany BIO 104. GEO 104L can be substituted for this course. Third term only.

BIO 151  CONCEPTS OF BIOLOGY I
Study of the molecular and cellular organization of organisms. Topics also include biocenergetics, genetics, and evolution. Core biology course for majors in sciences such as biology, premedicine, and others.

BIO 151L  CONCEPTS OF BIOLOGY LABORATORY I
An introduction to biological laboratory procedures and instrumentation through a series of observational and experimental exercises at the cellular level. Core biology course.  
Prerequisite(s): BIO 151 (may be taken as corequisite).

BIO 152  CONCEPTS OF BIOLOGY II
Continuation of BIO 151. Study of taxonomic diversity, plant and animal organismal physiology, and ecology and animal behavior. Core biology course.  
Prerequisite(s): BIO 151.

BIO 152L  BIOLOGY LABORATORY INVESTIGATIONS II
Biological laboratory exercises at the organism and the system level. Emphasis on both plant and animal behavior. Core biology course.  
Prerequisite(s): BIO 152 (may be taken as corequisite).

BIO 299  BIOLOGY SEMINAR
Introduction to biological journals and abstracting materials. Practice in reviewing, abstracting, and presenting biological information. Primarily for sophomores.

BIO 301  EVOLUTION
Theory and evidence of organic evolution, with emphasis on microevolutionary change and population genetics.  
Prerequisite(s): (BIO 101, 102) or (BIO 151, 152); BIO 312 recommended.

BIO 309  COMPARATIVE ANATOMY OF THE VERTEBRATES
Study of changes that have occurred in the chordate body with the passage of time, and analysis of their significance.  
Prerequisite(s): Minimum of one year of introductory biology.

BIO 309L  COMPARATIVE ANATOMY LABORATORY
Dissection and study of the anatomical structure of representative vertebrate animals. Course to accompany BIO 309.  
Corequisite(s): BIO 309.

BIO 310  ECOLOGY
Interrelationship of plants, animals, and micro-organisms with the physical-chemical environment: nutrient cycles, energy flow, ecosystems, and factors affecting distribution and abundance of organisms.

**Prerequisite(s):** One year of biology.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 310L</td>
<td>ECOLOGY LABORATORY</td>
<td>1</td>
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<tr>
<td></td>
<td>Field and laboratory exercises to accompany BIO 310. May be taken concurrently with or following BIO 310.</td>
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</tr>
<tr>
<td>BIO 311</td>
<td>INTRODUCTORY ENTOMOLOGY</td>
<td>3</td>
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<tr>
<td></td>
<td>Classification, physiology, ecology, and impact of insects on society. <strong>Prerequisite(s):</strong> BIO 151, 152.</td>
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<tr>
<td>BIO 312</td>
<td>GENERAL GENETICS</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of the principles of variation and heredity covering both Mendelian and molecular genetics. Core biology course.</td>
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</tr>
<tr>
<td>BIO 312L</td>
<td>GENETICS LABORATORY</td>
<td>1</td>
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<tr>
<td></td>
<td>Laboratory exercises to accompany BIO 312. May be taken concurrently with or following the lecture course.</td>
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</tr>
<tr>
<td>BIO 314</td>
<td>PLANT BIOLOGY</td>
<td>3</td>
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<tr>
<td></td>
<td>Consideration of structure, function, reproduction, and inheritance as applicable in the plant patterns of life. Emphasis on the vascular plants. <strong>Prerequisite(s):</strong> Minimum of one course in biology.</td>
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</tr>
<tr>
<td>BIO 314L</td>
<td>PLANT BIOLOGY LABORATORY</td>
<td>1</td>
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<tr>
<td></td>
<td>Laboratory exercises to accompany BIO 314. Emphasis on generalized structure and function of plants. One three-hour laboratory each week.</td>
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<tr>
<td>BIO 320</td>
<td>MARINE BIOLOGY</td>
<td>2</td>
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<tr>
<td></td>
<td>Introduction to the diversity of marine life including the physical-chemical environment. Third term only.</td>
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<tr>
<td>BIO 320L</td>
<td>MARINE BIOLOGY LABORATORY</td>
<td>2</td>
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<tr>
<td></td>
<td>Examination of marine organisms and processes. Laboratory work conducted on UD campus and at off-campus field sites in the south. Third term only.</td>
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</tr>
<tr>
<td>BIO 330</td>
<td>ANIMAL BEHAVIOR</td>
<td>3</td>
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<tr>
<td></td>
<td>An evolutionary approach to the study of animal behavior, emphasizing both proximate mechanisms and functional explanations of the survival value of behavior. <strong>Prerequisite(s):</strong> One year of biology.</td>
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</tr>
<tr>
<td>BIO 330L</td>
<td>ANIMAL BEHAVIOR LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Field and laboratory exercises to accompany BIO 330. Should be taken concurrently with BIO 330. One three-hour laboratory each week and occasional Saturday field trips.</td>
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</tr>
<tr>
<td>BIO 340</td>
<td>CULTURE, BIODIVERSITY, AND RESOURCES MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Field lecture course addressing cultural impacts on biodiversity and conciliatory demands for resource management to preserve the integrity of unique global environments. An experiential study of culture, regional geological morphology and weather-patterns, economic development, the freshwater-marine continuum, resource utilization, environmental law and management on conservation of unique biological habitats and organisms. <strong>Prerequisite(s):</strong> Permission of instructor. <strong>Corequisite(s):</strong> BIO 340L.</td>
<td></td>
</tr>
<tr>
<td>BIO 340L</td>
<td>CULTURE, BIODIVERSITY, AND RESOURCES MANAGEMENT LAB</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>Lab field course on culture, biodiversity and balanced resource management to preserve integrity of unique global environments and compromises with economic development. Assessment of biodiversity in diverse biomes (e.g. elevational and rainforest-desert gradients, watersheds, coral reef systems) will be assessed with experimental design, data collection and analysis. May fulfill only one laboratory requirement for the Biology major.</td>
<td></td>
</tr>
</tbody>
</table>
**Prerequisite(s):** Permission of instructor.

**Corequisite(s):** BIO 340.

**BIO 350 APPLIED MICROBIOLOGY**
Fundamentals of applied and environmental microbiology for environmental scientists and engineers. Introduction to microorganisms and their role in bioenvironmental engineering and industrial processes. For non-biological science majors only.

**Prerequisite(s):** Introductory biology; general and organic chemistry.

**BIO 350L APPLIED MICROBIOLOGY LABORATORY**
An introductory laboratory to acquaint students with basic microbiology laboratory techniques as applied to environmental pollution and industrial fermentations.

**BIO 359 SUSTAINABILITY AND THE BIOSPHERE**
Study of the principles of sustainability. All areas of sustainability will be covered with emphasis on ecological facets of sustainability. Discussion of loss of habitat and biodiversity in the context of sustaining natural resources for future generations.

**Prerequisite(s):** (BIO 151,152) or permission of instructor.

**BIO 360 ISLAND ENVIRONMENTAL BIOLOGY**
Field lecture course on environments of Pacific Islands. Study of volcanic geology, island morphology/weather-patterns, native culture, economic development, freshwater-marine continuum and water resource utilization on unique biological habitats.

**Prerequisite(s):** Permission of instructor.

**Corequisite(s):** BIO 360L.

**BIO 360L ISLAND ENVIRONMENTAL BIOLOGY LAB**
Lab field course on Pacific Islands. Ecology of elevational and rainforest-desert gradients, volcanic mountain streams, watersheds, and coral systems with experimental design, data collection and analysis.

**Prerequisite(s):** Permission of instructor.

**Corequisite(s):** BIO 360.

**BIO 370 CONSERVATION BIOLOGY**
An ecosystem approach to the study of and threat to local, regional, and global biodiversity. Application of ecological principles of conservation of species and habitats.

**Prerequisite(s):** (BIO 101, 102) or (BIO 151, 152).

**BIO 390 PHYSIOLOGY OF SEX AND FERTILITY REGULATION**
Introduction to the role of hormones, glands, organs, and devices in the regulation of sexual functions and fertility. No science credit for biological science majors.

**Prerequisite(s):** Introductory biology.

**BIO 395 GLOBAL ENVIRONMENTAL BIOLOGY**
Presentation of the biological and ecological principles needed for critical discussion and evaluation of current global environmental issues including food production, human population growth, role of humans and pollution in environmental degradation, and conservation of agricultural, forest and other natural resources. No science credit for biology majors.

**Prerequisite(s):** An introductory course in the natural sciences.

**BIO 402 VERTEBRATE ZOOLOGY**
The morphology, physiology, ecology, and distribution of representative vertebrate groups.

**Prerequisite(s):** Junior or senior standing.

**BIO 402L VERTEBRATE ZOOLOGY LABORATORY**
Course to accompany BIO 402. A laboratory focused on the diversity, systematics and ecology of vertebrates. One three-hour laboratory each week.
BIO 403 PHYSIOLOGY I
A physical-chemical examination of the physiological events occurring in a living system with emphasis on physiology of the cell, excretion, nerves, muscles, bone, blood, heart, circulation, and respiration.
Prerequisite(s): (BIO 101, 102) or (BIO 151, 152); CHM 313, 314.

BIO 403L PHYSIOLOGY LABORATORY I
Course to accompany BIO 403. Systematic approach to the acquisition and interpretation of information about the physiology of living systems.

BIO 404 PHYSIOLOGY II
Study of hormonal regulation of metabolism and growth and reproduction of higher vertebrates, including primates.
Prerequisite(s): (BIO 101, 102) or (BIO 151, 152); CHM 313, 314.

BIO 409 ECOLOGICAL RESTORATION
Principles and practices of ecological restoration. The course presents the rationale and knowledge needed to understand, appreciate, plan and perform ecological restoration.
Prerequisite(s): Permission of instructor.

BIO 409L ECOLOGICAL RESTORATION LABORATORY
Provides practical applications of the principles of ecological restoration to a variety of ecosystems.
Corequisite(s): BIO 409.

BIO 411 GENERAL MICROBIOLOGY
Introductory course stressing the physiology, cultivation, and classification of microbial organisms; their role in medicine, agriculture, and industry.
Prerequisite(s): (BIO 101, 102) or (BIO 151, 152); CHM 313, 314.

BIO 411L GENERAL MICROBIOLOGY LABORATORY
Course to accompany BIO 411. One three-hour period each week.

BIO 415 NEUROBIOLOGY
Structure and function of the brain and nervous system. Emphasis on understanding cellular and molecular events within the nervous system using model organisms.
Prerequisite(s): BIO 151, 152; CHM 123, 124.

BIO 420 SEMINAR
Practice in development, presentation, and discussion of papers dealing with biological research problems
Prerequisite(s): Junior or senior standing.

BIO 421 BIOLOGICAL PROBLEMS
Laboratory research problems. Topics arranged with faculty advisors.
Prerequisite(s): Permission of department chairperson.

BIO 422 BIOLOGICAL PROBLEMS
Library research problems. Topics arranged with faculty advisors.
Prerequisite(s): Permission of department chairperson.

BIO 425 PARASITOLOGY
Introduction to the morphology, life history, and clinical significance of parasites and other symbionts.
Prerequisite(s): (BIO 101, 102) or (BIO 151, 152).

BIO 425L PARASITOLOGY LABORATORY
Course to accompany BIO 425. Recognition of common human parasites. Study of both living and preserved forms. One three-hour period each week.

BIO 427 IMMUNOLOGY
Discussions of antigens, antibodies, antigenicity, immunogenicity, and antigen-antibody reactions including hypersensitivity, immune tolerance, and transplants.
**Prerequisite(s):** CHM 420.

BIO 435  MICROBIAL ECOLOGY
Study of the diversity and activity of microorganisms and the interrelationships between microorganisms and their environments with emphasis on aquatic ecosystems.
**Prerequisite(s):** BIO 411; CHM 313, 314.

BIO 435L  MICROBIAL ECOLOGY LABORATORY
Examination of the methods of isolation and enumeration of microorganisms and techniques for determining their activities in the field and laboratory.

BIO 439  ANALYSIS AND INTERPRETATION OF BIOLOGICAL DATA
Introducing the nature of some of the important types of data that are generated in biological research, the databases that warehouse such data, the principles involved in the analysis of such data, the use of appropriate software to analyze such data, and the biological interpretation of the results of analysis.
**Prerequisite(s):** BIO 151, 152.

BIO 440  CELL BIOLOGY
**Prerequisite(s):** (BIO 101, 102) or (BIO 151, 152); CHM 313, 314.

BIO 440L  CELL BIOLOGY LABORATORY
Laboratory exercises to accompany BIO 440. May be taken concurrently with or following BIO 440.

BIO 441  ENVIRONMENTAL PLANT BIOLOGY
Study of the physiological basis for environmental effects on plant metabolism, structure, growth and development, including plant responses to elevated carbon dioxide, acid deposition, and to water stress.
**Prerequisite(s):** (BIO 101, 102) or (BIO 151, 152).

BIO 442  DEVELOPMENTAL BIOLOGY
Study of animal development, including morphological patterns of development, mechanisms of cellular differentiation, cell-cell interactions during development, and mechanisms of differential gene expression. Emphasis on understanding development at the cellular and molecular levels.
**Prerequisite(s):** (BIO 101, 102) or (BIO 151, 152).

BIO 442L  DEVELOPMENTAL BIOLOGY LABORATORY
Laboratory exercises to accompany BIO 442. May be taken concurrently with or following BIO 442.

BIO 444  PLANT DIVERSITY
Broad survey of the major divisions of the plant kingdom; consideration of algae, fungi, bryophytes, vascular plant groups; includes generalized life histories, ecological and physiological characteristics, and evolutionary relationships.

BIO 444L  PLANT DIVERSITY LABORATORY
Laboratory studies of the plant groups, including life cycles and evolutionary, physiological, and ecological adaptations. One three-hour laboratory each week.

BIO 445  EVOLUTION AND DEVELOPMENT
A molecular and population genetic examination of the evolution of animal form. Topics include comparative developmental biology, population genetics, and molecular evolution.
**Prerequisite(s):** BIO 312.

BIO 450  COMPARATIVE ANIMAL PHYSIOLOGY
Organized on a function-system basis, course dealing with environment-organism interaction and with integrative systems of the principle phyla of animals.

**BIO 450L COMPAREATIVE ANIMAL PHYSIOLOGY LABORATORY**

Laboratory to accompany BIO 450.

**Corequisite(s):** BIO 450.

**BIO 452 BIOLOGY OF RIVERS AND LAKES**

The biological interrelationships of organisms in rivers, streams, lakes and ponds including biodiversity, ecological/evolutionary adaptations and structure of aquatic ecosystems.

**Prerequisite(s):** Any introductory course in biology (BIO 101 or BIO 151 or BIO 152 or SCI 230 or SCI 240).

**BIO 452L BIOLOGY OF RIVERS AND LAKES LABORATORY**

Laboratory and field exercises emphasizing the biological, chemical and physical attributes of freshwater ecological systems. One laboratory or field trip per week.

**Prerequisite(s):** Any introductory course in biology (BIO 101 or BIO 151 or BIO 152 or SCI 230 or SCI 240).

**BIO 459 ENVIRONMENTAL ECOLOGY**

The application of current ecological knowledge and principles toward the study of human impact on the environment. Emphasis on ecosystem dynamics, applied ecology, disturbance ecology, and approaches to solving global environmental problems.

**Prerequisite(s):** BIO 430 or permission of instructor.

**BIO 459L ENVIRONMENTAL ECOLOGY LABORATORY**

Analytical approach to studying applied ecology and human impact on the environment. Emphasis on laboratory and field approaches to solving environmental problems through the use of ecological principles.

**Prerequisite(s):** BIO 459 (may be taken as corequisite).

**BIO 460 INTRODUCTION TO BIOINFORMATICS**

This course introduces the concepts involved in bioinformatics, using the appropriate material from the disciplines of biology, chemistry and computer science, among others.

**Prerequisite(s):** (BIO 152; junior or senior standing) or permission of instructor.

**BIO 461 INVERTEBRATE ZOOLOGY**

Survey of the structure, activities, life histories, and relationships of the invertebrate animals, with some emphasis on their origin and development.

**Prerequisite(s):** (BIO 101, 102) or (BIO 151, 152).

**BIO 461L INVERTEBRATE ZOOLOGICAL LABORATORY**

Course to accompany BIO 461. One three-hour laboratory each week.

**BIO 462 MOLECULAR BIOLOGY**

Analysis of the nature of the gene and gene action. Particular attention to genetic regulation and to recent advances in molecular genetics.

**Prerequisite(s):** BIO 312; CHM 314.

**BIO 466 BIOLOGY OF INFECTIOUS DISEASE**

The nature of infectious diseases, host-parasite relationships in resistance and infection, defense mechanism (antigen-antibody response); survey of the bacteria causing disease in humans.

**Prerequisite(s):** BIO 411.

**BIO 466L BIOLOGY OF INFECTIOUS DISEASE LABORATORY**

Laboratory experiments to demonstrate immunological, serological, determinative, and medical bacteriology. Two two-hour laboratory periods each week.

**BIO 470 CANCER BIOLOGY**
Study of growth patterns and causes of cancer at the cellular and molecular levels. Discussion of the hereditary and environmental factors that contribute to the development of the disease in cancer patients. Description of the research being conducted to understand and cure the disease.  
**Prerequisite(s):** BIO 440.

**BIO 477 HONORS THESIS PROJECT**
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.  
**Prerequisite(s):** Approval of University Honors Program.

**BIO 478 HONORS THESIS PROJECT**
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.  
**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**BIO 479L ENVIRONMENTAL INSTRUMENTATION LABORATORY**
The understanding and use of field and laboratory based equipment to study current environmental issues. Emphasis on team-centered approaches to investigating environmental problems. Same as GEO 479L.  
**Prerequisite(s):** (BIO 151, 152; GEO 115, 116) or permission of instructor.

**BIO 480 PRINCIPLES OF MICROSCOPY**
Focus on basic principles and theory of light and electron microscopy, and how these techniques address fundamental questions in science.  
**Prerequisite(s):** (BIO 151, 152) or permission of instructor.

**BIO 480L PRINCIPLES OF MICROSCOPY LABORATORY**
Application and practice of light and electron microscopy.  
**Prerequisite(s):** BIO 480 (may be taken as corequisite).

**BIO 489 MYCOLOGY**
Introductory course stressing the interrelationship between fungi and the rest of the biological world. Emphasis on the basic biology and ecology of fungi, decomposition, species interactions, plant pathology and medical mycology.  
**Prerequisite(s):** One year of introductory biology.

**BIO 499 ENVIRONMENTAL BIOLOGY INTERNSHIP**
Majors will have the opportunity to obtain valuable training and experience under the mentorship of established scientists and professionals. Emphasis on approaches to solving environmental problems including such research areas as bioremediation, risk assessment, and ecological restoration. May be repeated up to six semester hours.  
**Prerequisite(s):** Junior or senior standing; permission of program director.
School of Business Administration  
(BAI) Business Interdisciplinary Studies

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAI103L</td>
<td>BUSINESS COMPUTING LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Introduction to business software skills including Microsoft Excel, FrontPage and PowerPoint. Overview of UD computer ethics policies.</td>
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</tr>
<tr>
<td>BAI150</td>
<td>BUSINESS EDUCATIONAL PLANNING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Introduction to the School of Business Administration, the University, and educational planning.</td>
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</tr>
<tr>
<td>BAI151</td>
<td>BUSINESS INTEGRATION EXPERIENCE</td>
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<tr>
<td></td>
<td>Integrated introduction to major business processes and decision making.</td>
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<tr>
<td>BAI199</td>
<td>BUSINESS SCHOLARS FORUM I</td>
<td>1</td>
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<tr>
<td></td>
<td>Exploration and discussion of a wide range of business topics. Weekly sessions led by faculty members and guest professionals in their areas of expertise. Open only to first-year Business Scholars or with permission of the Dean's office.</td>
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<tr>
<td>BAI201</td>
<td>BUSINESS SCHOLARS FORUM II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Similar to BAI 199 with topics geared toward sophomore Business Scholars. Open only to sophomore Business Scholars or with permission of the Dean's office.</td>
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<tr>
<td>BAI295</td>
<td>CAREER DEVELOPMENT SEMINAR</td>
<td>1</td>
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<td>Seminar for exploration of career options. Involves exploring career options, investigating tentative career choices, deciding on potential career direction, and developing the knowledge and skill to pursue a career direction. Should be taken second semester sophomore year or either semester junior year. In management and marketing, BAI 295 is a prerequisite for internship or co-op experience if either is undertaken for academic credit.</td>
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<tr>
<td>BAI301</td>
<td>PRACTICUM IN INTERNATIONAL BUSINESS</td>
<td>3</td>
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<tr>
<td></td>
<td>Study and analysis of international business concepts: objectives and ethics; planning; decision-making; business skills and entrepreneurial aptitudes. Comparative analysis of various cultures and their impact on international business operation.</td>
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<tr>
<td>BAI400</td>
<td>DEAN'S LEADERSHIP LABORATORY</td>
<td>1</td>
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<tr>
<td></td>
<td>Upper-class student participation in first-year student advising program. Permission of dean's office required.</td>
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</tr>
<tr>
<td>BAI497</td>
<td>LABORATORY WORK EXPERIENCE</td>
<td>3 - 6</td>
</tr>
<tr>
<td></td>
<td>Under faculty sponsorship and in association with a participating industrial, commercial, educational, health-care, or governmental organization; practical experience in work associated with the student's major or minor concentration. (See internship coordinator for details.) Does not count toward major. Permission of dean is required.</td>
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</tr>
</tbody>
</table>
School of Engineering
Chemical and Materials Engineering

Chemical engineering applies the principles of the physical sciences, economics, and human relations to research, design, build, and supervise facilities that convert raw materials into useful products and services.

The majority of chemical engineers are involved in the chemical process industries that produce many of the materials and items needed in everyday life. These include medicine, food, fertilizers, plastics, synthetic fibers, petroleum, petrochemicals, ceramics, and pulp and paper products. A chemical engineer may pursue a professional career in many other fields, such as energy conversion, pollution control, medical research, and materials development in aerospace and electronic industries.

Chemical engineers are employed in research, development, design, production, sales, consulting, and management positions. They are also found in government and education. Many use a chemical engineering education as a stepping stone to law, medicine, or corporate management.

The curriculum in chemical engineering serves as basic training for positions in these diverse areas of the manufacturing industry or for graduate study leading to advanced degrees. The first part of the chemical engineering curriculum provides a firm foundation in mathematics, physics, and chemistry. The chemistry background is stressed. The second part of the curriculum offers a balance between classroom and laboratory experience in stressing chemical engineering topics such as transport phenomena, thermodynamics, kinetics and reactor design, separation processes, fluid flow and heat transfer operations, process control, and process design. The development of design tools, communication, and interpersonal skills is integrated throughout the curriculum. The curriculum allows minors in emerging technologies such as bioengineering, environmental engineering and materials engineering. Those interested in attending medical / dental school can pursue a premed preparation as part of their curriculum.

The educational objectives of the chemical engineering program are to produce graduates who:

- have successful careers in the chemical process industry with the skills necessary to pursue opportunities to work in multidisciplinary and non-traditional industries and positions.
- are successful at prestigious graduate, medical, and law schools.
- are committed to performing ethically while serving their professions, companies, and communities.
- from the depth of their foundations in engineering principles and the breadth of their general educations, exhibit strong critical thinking, technical, and professional skills; and engage in continuous intellectual and personal growth.

Faculty

Tony E. Saliba, Chairperson
Professors Emeriti: Lu, Snidle
Professors: Browning, Dai, Eylon, Flach, Lee, Myers, T. Saliba, Sandhu
Associate Professor: Wilkens
Lecturer: Ciric

Majors/Minors

Major/Minor Name

Bachelor of Chemical Engineering (CME)

Sem. Hrs.

First-Year 32-39
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CHM 123-123L</td>
<td>GENERAL CHEMISTRY (CHM 123)</td>
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<td>GENERAL CHEMISTRY LABORATORY (CHM 123L)</td>
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<td>CME 101</td>
<td>INTRODUCTION TO CHEMICAL ENGINEERING</td>
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<td>EGR 100</td>
<td>ENRICHMENT WORKSHOP</td>
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<td>EGR 101</td>
<td>INTRODUCTION TO ENGINEERING DESIGN</td>
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<td>ENG 101-102 or 114 or 188</td>
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<td>FRESHMAN WRITING SEMINAR (ENG 114)</td>
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<td>ENGLISH SCHOLARS' SEMINAR (ENG 198)</td>
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<td>THE WEST AND THE WORLD (HST 103)</td>
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<tr>
<td>MTH 188</td>
<td>ANALYTIC GEOMETRY AND CALCULUS I</td>
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<td>MTH 189</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
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<td>PHY 206</td>
<td>GENERAL PHYSICS I - MECHANICS</td>
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**Sophomore-Year**

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<td>CHM 313-313L</td>
<td>ORGANIC CHEMISTRY (CHM 313)</td>
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<td>ORGANIC CHEMISTRY LABORATORY (CHM 313L)</td>
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<td>CME 201</td>
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<td>MTH 218</td>
<td>ANALYTIC GEOMETRY AND CALCULUS III</td>
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<td>INTRODUCTION TO PHILOSOPHY</td>
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<td>PHY 207</td>
<td>GENERAL PHYSICS II - ELECTRICITY AND MAGNETISM</td>
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<td>CME 202</td>
<td>ENERGY BALANCES</td>
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<tr>
<td>CME 281</td>
<td>CHEMICAL ENGINEERING COMPUTATIONS</td>
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<tr>
<td>MTH 219</td>
<td>APPLIED DIFFERENTIAL EQUATIONS</td>
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**Junior-Year**

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<tr>
<td>CME 311</td>
<td>CHEMICAL ENGINEERING</td>
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<tr>
<td>CME 324</td>
<td>THERMODYNAMICS</td>
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<tr>
<td>CME 381</td>
<td>TRANSPORT PHENOMENA I</td>
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<td>ADVANCED MATHEMATICS FOR CHEMICAL ENGINEERS</td>
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<td>General Education Course^1,^3</td>
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<td>CMM Fundamentals of Communication</td>
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<td></td>
<td>CHM Physical Chemistry elective &amp; Laboratory^2</td>
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<tr>
<td>Second-Term</td>
<td>17</td>
</tr>
<tr>
<td>CME 325</td>
<td>TRANSPORT PHENOMENA II</td>
</tr>
<tr>
<td>CME 326L</td>
<td>TRANSPORT PHENOMENA LABORATORY</td>
</tr>
<tr>
<td>CME 365</td>
<td>SEPARATION TECHNIQUES</td>
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<td>General Education Course</td>
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<td>CHM elective^3</td>
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<td>Engineering elective^4</td>
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**Senior-Year**

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<td>First-Term</td>
<td>17-18</td>
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</table>
### CME 406 CHEMICAL REACTION KINETICS AND ENGINEERING

- **Sem:** 3

### CME 408 SEMINAR

- **Sem:** 0 - 1

### CME 430 CHEMICAL ENGINEERING DESIGN I

- **Sem:** 3

### CME 452 PROCESS CONTROL

- **Sem:** 3

### CME 465 FLUID FLOW AND HEAT TRANSFER PROCESSES

- **Sem:** 3

### CME 466L CHEMICAL ENGINEERING UNIT OPERATIONS LABORATORY

- **Sem:** 2

- **General Education Course:** 3

#### Second-Term 17-18

### CME 408 SEMINAR

- **Sem:** 0 - 1

### CME 431 CHEMICAL ENGINEERING DESIGN II

- **Sem:** 3

### CME 453L PROCESS CONTROL LABORATORY

- **Sem:** 2

- **General Education Course:** 3

- **Technical elective**

- **Sem:** 3

- **Technical elective**

- **Sem:** 3

- **CME elective**

- **Sem:** 3

---

1. Must be selected from approved list of PHL or REL ethics courses.
2. Select from CHM 303 & 303L or CHM 304 & 304L.
3. Must be selected from list approved by the Chemical and Materials Engineering Department.
4. Select from EGM 213 (four semester hours) or ECE 323 (three semester hours) & ECE 323L (one semester hour).

## Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CME 101</td>
<td>INTRODUCTION TO CHEMICAL ENGINEERING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Introduction to the chemical engineering faculty, facilities, and curriculum; survey of career opportunities in chemical engineering. Introduction to the University first-year experience.</td>
<td></td>
</tr>
<tr>
<td>CME 198</td>
<td>RESEARCH AND INNOVATION LABORATORY</td>
<td>1 - 6</td>
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<tr>
<td></td>
<td>Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.</td>
<td></td>
</tr>
<tr>
<td>CME 201</td>
<td>MATERIAL BALANCES</td>
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<tr>
<td></td>
<td>An introductory course on the application of mass conservation laws to solve problems typically encountered in the chemical process industries. Course to include dynamic systems and instrumentation. <strong>Prerequisite(s):</strong> CHM 123; MTH 168.</td>
<td></td>
</tr>
<tr>
<td>CME 202</td>
<td>ENERGY BALANCES</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An introductory course on the application of energy conservation laws to solve problems typically encountered in the chemical process industries. Course to include introduction to thermodynamics, dynamic systems and instrumentation. <strong>Prerequisite(s):</strong> CME 201.</td>
<td></td>
</tr>
<tr>
<td>CME 281</td>
<td>CHEMICAL ENGINEERING COMPUTATIONS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Development of computational skills and digital data acquisition with an emphasis on algorithm development and problem solving. Applications to problems typically encountered in chemical engineering. <strong>Prerequisite(s):</strong> CME 201.</td>
<td></td>
</tr>
<tr>
<td>CME 288</td>
<td>RESEARCH AND INNOVATION LABORATORY</td>
<td>1 - 6</td>
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</table>

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7/12/2012 9:50 AM
Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

CME 311 CHEMICAL ENGINEERING THERMODYNAMICS
Development of the fundamental principles of thermodynamics, particularly with respect to chemical engineering processes. **Prerequisite(s):** CME 202; MTH 218.

CME 324 TRANSPORT PHENOMENA I
Viscosity, shell momentum balances, isothermal equations of change, thermal conductivity, shell energy balances, non-isothermal equations of change, diffusivity, concentration profiles. **Prerequisite(s):** CME 202, 281; MTH 219. **Corequisite(s):** CME 381.

CME 325 TRANSPORT PHENOMENA II
Multidimensional transport, dimensionless parameters, turbulence, and numerical solution methods. **Prerequisite(s):** CME 324, 381.

CME 326L TRANSPORT PHENOMENA LABORATORY
Viscosity, conductivity, diffusion coefficient measurements, velocity, temperature, concentration profiles, engineering instrumentation, and experimental error analysis. **Prerequisite(s):** CME 324. **Corequisite(s):** CME 325.

CME 365 SEPARATION TECHNIQUES
Equilibrium staged separations: distillation, extraction, absorption, evaporation and drying with an emphasis on distillation. **Prerequisite(s):** CME 311, 324.

CME 381 ADVANCED MATHEMATICS FOR CHEMICAL ENGINEERS
Study of analytical and numerical techniques to support upper-level chemical engineering classes. Vector analysis, matrices, differential equations, numerical integration and differentiation, root finding, and curve fitting. **Prerequisite(s):** CME 311, 324.

CME 398 RESEARCH AND INNOVATION LABORATORY
Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

CME 406 CHEMICAL REACTION KINETICS AND ENGINEERING
Chemical kinetics, ideal reactor analysis and design, and heterogeneous catalysis. **Prerequisite(s):** CME 311.

CME 408 SEMINAR
Presentation of lectures on contemporary chemical engineering subjects by students, faculty, and engineers in active practice. Registration required of senior students only.

CME 409 INTRODUCTION TO POLYMER ENGINEERING
Introduction to the chemistry, structure, and properties of polymers; polymer synthesis and processing. **Prerequisite(s):** CHM 314; CME 311.
CME 430 CHEMICAL ENGINEERING DESIGN I
Study of the principles of process development, plant design, and economics.
Prerequisite(s): CME 202.

CME 431 CHEMICAL ENGINEERING DESIGN II
Application of the principles of process development, plant design, and economics.
Prerequisite(s): CME 365, 406, 430, 465.

CME 432 CHEMICAL PRODUCT DESIGN
Application of the design process to products based on chemical technology. Coverage of the entire design process from initial identification of product needs, to the generation and selection of product ideas, and culminating in the manufacture of a new product.

CME 452 PROCESS CONTROL
Mathematical models, Laplace transform techniques, and process dynamics. Feedback control systems, hardware, and instrumentation. Introduction to frequency response, advanced techniques, and digital control systems.
Prerequisite(s): CME 381.

CME 453L PROCESS CONTROL LABORATORY
Project-oriented study of process dynamics and control using computer-based data acquisition and control systems.
Prerequisite(s): (CME 452, 466L) or permission of instructor.

CME 465 FLUID FLOW AND HEAT TRANSFER PROCESSES
Fluid mechanics, transportation and metering of fluids, agitation and mixing, heat transfer and its applications.
Prerequisite(s): CME 311, 324.

CME 466L CHEMICAL ENGINEERING UNIT OPERATIONS LABORATORY
Study of the equipment and utilization of various chemical engineering processes.
Prerequisite(s): CME 365.
Corequisite(s): CME 465.

CME 486 INTRODUCTION TO PETROLEUM ENGINEERING
Introduction to the fundamental concepts in petroleum engineering. Petroleum topics include overviews of areas such as petroleum geology, petroleum fluids and thermodynamics, drilling and completion, and production and multiphase flow. In addition this course will cover refinery operations.

CME 490 INTRODUCTION TO BIOENGINEERING
Prerequisite(s): (CHM 420 or 451); CME 325, 365.
Corequisite(s): CME 406 or permission of instructor.

CME 491 BIOMEDICAL ENGINEERING
Introduction to the fundamental concepts in biomedical engineering with a special focus on chemical engineering applications. Biomedical topics include overviews of areas such as biomaterials, tissue engineering, biosensors and biomedical engineering technology.
Prerequisite(s): (BIO 151; (CHM 420 or 451); CME 324, 365) or permission of instructor.

CME 492 CHEMICAL SENSORS AND BIOSENSORS
Analysis performed with chemical sensors complement laboratory analyses and offer the potential for more rapid and on-line analyses in complex sample matrices. The demand for new chemical sensors, biosensors, and sensing concepts is rapidly increasing and associated with the growing need to understand and/or control complex chemical and biochemical processes.
or detect the presence of toxic chemical or biological agents.

**Prerequisite(s):** Permission of instructor.

**CME 498 RESEARCH AND INNOVATION LABORATORY 1-6**

Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.
College of Arts and Sciences
(Chemistry (CHA))

The B.A. program in chemistry provides a framework of scientific courses which serves as a preparation for a number of interdisciplinary professions. The traditional B.S. curriculum has been modified in the B.A. program, most notably in mathematics, physics, and advanced chemistry. The program is sufficiently flexible to afford a wide selection of courses in the humanities. Science courses may be chosen to provide a preparation for professions such as medicine, dentistry, optometry, veterinary medicine, biochemistry, education, and law, as well as for employment in many other areas which require a background in science.

The B.S. program in chemistry is approved by the American Chemical Society for the training of professional chemists. Students in the B.S. program in chemistry are required to conduct an original research project. Satisfactory of this requirement normally begins with enrollment in CHM 495 and selection of a research professor and project during the second term of the junior year. The research project, conducted during the entire senior year, normally requires two work periods of three to four hours each a week. The project culminates in the final term of the senior year with enrollment in CHM 498, the submission of an acceptable thesis, and the presentation of a seminar in CHM 497. Additional research work to a maximum total of six semester hours may be elected provided that the work extends beyond two semesters. Cooperative education students may substitute work experience for research with the prior approval of the department chairperson.

The B.S. program in biochemistry follows a curriculum which satisfies the needs of students who anticipate careers in the life sciences. A mark of distinction and rigor is that each student is required to conduct research, which normally includes a ten-week summer period following their junior year and culminates with the submission of a research thesis and the presentation of a seminar.

A minor in chemistry consists of twenty semester hours.

Faculty

Mark B. Masthay, Chairperson
Distinguished Service Professor: Lucier
Professors: Fratini, R. Keil, Knachel, Morrow, Singer
Associate Professors: Church, Johnson
Assistant Professors: Benin, Swavey
Lecturer: Trick
Laboratory Instructors: Dichiara, Hils, Jeffery, P. Keil, Piepgrass, Tabesh, Webb

Majors/Minors

Major/Minor Name

<table>
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<th>Major/Minor Name</th>
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<tbody>
<tr>
<td>Bachelor of Arts with a major in Chemistry (CHA)</td>
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Liberal Studies Curriculum

Humanities and Fine Arts

Philosophy and Religious Studies

12
<table>
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<tr>
<th>Category</th>
<th>Sem. Hrs.</th>
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<tr>
<td>History</td>
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<td>Literature: English or Foreign Language</td>
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<td>Creative and Performing Arts</td>
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<td>Foreign Language and/or Additional Arts and/or Humanities</td>
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<tr>
<td>Social Sciences</td>
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<tr>
<td>Mathematics (excludes MTH 102, 204, 205)</td>
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<tr>
<td>Natural Sciences</td>
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<tr>
<td>PHY 201-201L, 202-202L</td>
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<tr>
<td>Communication Competencies</td>
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<tr>
<td>Introduction to the University: ASI 150</td>
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<tr>
<td>General Education courses/academic electives to total at least</td>
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1. Advanced placement is permitted.
2. May substitute two upper level courses from other science departments with permission of chairperson.

Bachelor of Science with a major in Biochemistry (BCM)

### Chemistry

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<td>Year 4</td>
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### Biology

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### Breadth Requirement

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<tr>
<td>Natural Sciences</td>
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<td>PHY 206, 207, 210L</td>
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<td>BIO 312, 314, 403, 404, 411, 440, 462, 466</td>
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<tr>
<td>CHM 404, 412, 415, 415L, 417, 418L, 427, 499</td>
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<tr>
<td>Mathematics, Computer Science</td>
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<td>CPS 132</td>
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<td>MTH 168, 169, 218</td>
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<td>Foreign Language</td>
<td>6-8</td>
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<tr>
<td>Social and Behavioral Sciences</td>
<td>6</td>
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<tr>
<td>Humanities</td>
<td>9</td>
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<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
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</table>

### Communication Competencies

| Introduction to the University: ASI 150 | 0-9 |

**General Education courses/academic electives to total at least 120-127**

1. Advanced placement is permitted.
Bachelor of Science with a major in Chemistry (CHM)

<table>
<thead>
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<th>Year</th>
<th>Course(s)</th>
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<tr>
<td>Year 2</td>
<td>CHM 201-201L, 313-313L, 314-314L</td>
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<tr>
<td>Year 3</td>
<td>CHM 303-303L, 304-304L, 317, 417, 418L, 495</td>
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<td>Year 4</td>
<td>CHM 415-415L, (420 or (451 &amp; 452)), 496, 497, 498</td>
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Breadth Requirement

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<th>Category</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>Mathematics, Computer Science</td>
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<tr>
<td>CPS 132</td>
<td>3</td>
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<tr>
<td>MTH 168, 169, 218</td>
<td>12</td>
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<tr>
<td>Foreign Language</td>
<td>6-8</td>
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<tr>
<td>Social and Behavioral Sciences</td>
<td>6</td>
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<tr>
<td>Humanities</td>
<td>9</td>
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<tr>
<td>Philosophy and Religious Studies</td>
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</table>

Communication Competencies

<table>
<thead>
<tr>
<th>Component</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>Introduction to the University: ASI 150</td>
<td>0-1</td>
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</table>

General Education courses/academic electives to total at least 120

1. Advanced placement is permitted.
2. May substitute one approved science course from another department.
3. Should be completed during the first two years.

Minor in Chemistry (CHM)

<table>
<thead>
<tr>
<th>Year</th>
<th>Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CHM 123-123L, 124-124L, (302 or 303)</td>
</tr>
<tr>
<td></td>
<td>Nine additional semester hours (300- or 400-level, excludes CHM 490L)</td>
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Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>CHM 115</td>
<td>COLLEGE PREPARATORY CHEMISTRY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A one-term course for students desiring to enter a science or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>engineering program but whose background is insufficient for</td>
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</tr>
<tr>
<td></td>
<td>CHM 123-124. Unacceptable for credit toward chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>requirements in any chemistry program.</td>
<td></td>
</tr>
<tr>
<td>CHM 115L</td>
<td>COLLEGE PREPARATORY CHEMISTRY LABORATORY</td>
<td>1</td>
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<tr>
<td></td>
<td>Course to accompany CHM 115 or to be elected by students in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHM 200 who lack previous chemistry laboratory experience.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One three-hour laboratory each week.</td>
<td></td>
</tr>
<tr>
<td>CHM 123</td>
<td>GENERAL CHEMISTRY</td>
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</tbody>
</table>
Comprehensive treatment of the fundamentals of general chemistry.

**Prerequisite(s):** One year of high school chemistry or equivalent.

**CHM 123L** **GENERAL CHEMISTRY LABORATORY**

Laboratory course to complement CHM 123. One three-hour laboratory session each week.

**Corequisite(s):** CHM 123.

**CHM 124** **GENERAL CHEMISTRY**

Comprehensive treatment of the fundamentals of general chemistry.

**Prerequisite(s):** CHM 123.

**CHM 124L** **GENERAL CHEMISTRY LABORATORY**

Laboratory course to complement CHM 124. One three-hour laboratory session each week.

**Corequisite(s):** CHM 124.

**CHM 200** **CHEMISTRY AND SOCIETY**

A course for nonscience majors. The application of chemical principles to the examination of issues such as environmental quality, disease, hunger, synthetic materials, and law enforcement. Depending upon background and experience, a student needing a laboratory course may enroll in either CHM 115L or CHM 123L.

**Prerequisite(s):** One year of high school chemistry or equivalent.

**CHM 201** **QUANTITATIVE ANALYSIS**

Application of the principles of chemical equilibrium to the theory and techniques of gravimetric, volumetric, spectrophotometric, and electroanalytical methods of chemical analysis.

**Prerequisite(s):** CHM 124, 124L.

**CHM 201L** **QUANTITATIVE ANALYSIS LABORATORY**

Course to accompany CHM 201. One three-hour laboratory period each week.

**CHM 302** **PHYSICAL CHEMISTRY**

Essential elements of thermodynamics, chemical kinetics, equilibria, and electrochemistry for those with a primary interest in the life sciences. For B.A. chemistry majors and premedical, predental, and biology majors.

**Prerequisite(s):** CHM 124.

**CHM 303** **PHYSICAL CHEMISTRY**

Fundamentals of thermodynamics, chemical kinetics, electrochemistry, and spectroscopy with a mathematics format. For B.S. chemistry and biochemistry majors and chemical engineers.

**Prerequisite(s):** CHM 201 or equivalent.

**Corequisite(s):** MTH 218.

**CHM 303L** **PHYSICAL CHEMISTRY LABORATORY**

Course to accompany CHM 303. One three-hour laboratory each week.

**Prerequisite(s):** MTH 218.

**CHM 304** **PHYSICAL CHEMISTRY**

Fundamentals of thermodynamics, chemical kinetics, electrochemistry, and spectroscopy with a mathematics format. For B.S. chemistry and biochemistry majors and chemical engineers.

**CHM 304L** **PHYSICAL CHEMISTRY LABORATORY**

Course to accompany CHM 304. One three-hour laboratory each week.

**Corequisite(s):** MTH 218.

**CHM 313** **ORGANIC CHEMISTRY**

Major topics in organic chemistry including synthesis, mechanisms, stereochemistry, and spectroscopy. Required of all chemistry majors and students in the life sciences.

**Prerequisite(s):** CHM 124.
CHM 313L ORGANIC CHEMISTRY LABORATORY
Common separation, purification, and analytical techniques including chromatography and spectroscopy. One three-hour laboratory each week.
Corequisite(s): CHM 313.

CHM 314 ORGANIC CHEMISTRY
Major topics in organic chemistry including synthesis, mechanisms, stereochemistry, and spectroscopy. Required of all chemistry majors and students in the life sciences.
Prerequisite(s): CHM 313.

CHM 314L ORGANIC CHEMISTRY LABORATORY
Synthesis and characterization of organic materials utilizing skills from CHM 313L. One three-hour laboratory each week.
Prerequisite(s): CHM 313L.
Corequisite(s): CHM 314.

CHM 317 SPECTROSCOPIC IDENTIFICATION OF ORGANIC COMPOUNDS
The use of nuclear magnetic resonance, infrared, and mass spectrometry in elucidating structures. Emphasis on interpretation and integration of spectral data in problem solving.
Prerequisite(s): (CHM 314, 314L) or equivalent.

CHM 341 ENVIRONMENTAL CHEMISTRY
An introduction to the chemical processes in the environment. Topics include chemical equilibrium in aqueous solution, reaction mechanisms as applied to atmospheric chemistry, and analytical methods commonly applied to environmental samples.
Prerequisite(s): CHM 314 or permission of instructor.

CHM 341L ENVIRONMENTAL CHEMISTRY LABORATORY
A laboratory course to accompany CHM 341.
Corequisite(s): CHM 341.

CHM 404 SPECIAL TOPICS IN PHYSICAL CHEMISTRY
Thorough treatment of topics such as electrochemistry, macromolecules, photochemistry, or spectroscopy. May be repeated as topics change.
Prerequisite(s): CHM 302 or 303.

CHM 412 INTERMEDIATE ORGANIC CHEMISTRY
Modern theory and practice of organic chemistry. May include structure-reactivity relationships, reaction mechanism, and synthetic topics not normally treated in introductory courses.
Prerequisite(s): CHM 302 or equivalent; CHM 313, 314; senior standing.

CHM 415 ANALYTICAL CHEMISTRY
Chemical analysis based on modern instrumentation. Chromatographic, electrochemical, and spectroscopic methods.
Prerequisite(s): CHM 201, 201L; (CHM 302 or 304).

CHM 415L ANALYTICAL CHEMISTRY LABORATORY
Course to accompany CHM 415. Two three-hour laboratory sessions each week.
Prerequisite(s): CHM 201L; CHM 302 or equivalent.

CHM 417 INORGANIC CHEMISTRY
An advanced course in modern inorganic chemistry. Atomic structure, principles of bonding and structure, acid-base chemistry, periodicity, coordination compounds, nonaqueous solvents, electrochemistry, molecular symmetry, organometallic compounds, and the chemistry of selected representative elements.
Prerequisite(s): CHM 314.
Corequisite(s): CHM 302 or 304.

CHM 418L INORGANIC CHEMISTRY LABORATORY
Laboratory course dealing with the synthesis and characterization of inorganic and organometallic compounds. Topics include vacuum and inert atmosphere techniques, separation and purification, spectroscopic characterization, X-ray diffraction, magnetic moment, and conductance measurements.  
**Prerequisite(s):** CHM 201L, 314L.  
**Corequisite(s):** CHM 417.  

**CHM 420  BIOCHEMISTRY**  
**Prerequisite(s):** CHM 314.  

**CHM 426  BIOSYNTHETIC ORGANIC CHEMISTRY**  
Mechanistic fundamentals of the biosynthesis and transformation of organic natural products, with special emphasis on medicinal compounds, toxins, pheromones and other secondary metabolite structures.  
**Prerequisite(s):** (CHM 314, 314L) or equivalent.  

**CHM 427  MEDICINAL CHEMISTRY**  
The chemical mechanisms of action of the major drug classes will be surveyed with particular emphasis on the facets of organic chemistry that control drug-receptor interactions, metabolism and mechanisms of toxicity and resistance. First term.  
**Prerequisite(s):** CHM 314; (CHM 420 or 451).  

**CHM 451  GENERAL BIOCHEMISTRY I**  
Discussion of the chemistry and biochemistry of carbohydrates, amino acids, proteins, and nucleic acids, including health-science and methodologic aspects. Descriptions of enzymology, protein purification, and carbohydrate metabolism related to such topics as bioenergetics, membranes, and disease processes. Recommended for students desiring entry into graduate and professional schools.  
**Prerequisite(s):** CHM 201, 314.  

**CHM 452  GENERAL BIOCHEMISTRY II**  
Discussion of selected topics in bioenergetics, and metabolism of lipids, amino acids, porphyrins, nucleic acids, and proteins. Current aspects of nutrition, biochemical genetics, endocrinology, regulation, and genetic engineering addressed and related to health-science topics as time permits. Suitable preparation for medical school.  
**Prerequisite(s):** CHM 451.  

**CHM 462L  BIOCHEMISTRY LABORATORY**  
Laboratory course to accompany biochemistry lecture courses. Spectrophotometry, pH and dissociation, enzymologic methodology and analytical techniques, chromatographic techniques.  
**Corequisite(s):** CHM 420 or 451.  

**CHM 477  HONORS THESIS PROJECT**  
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.  
**Prerequisite(s):** Approval of University Honors Program.  

**CHM 478  HONORS THESIS PROJECT**  
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic
may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**CHM 490L SCIENTIFIC GLASSBLOWING**
1

Theory and practice of glass working. Under the supervision of a professional glassblower, students learn to make several standard seals and fabricate pieces of glass apparatus. Enrollment limited. One three-hour laboratory each week. Grading Option Two.

**Prerequisite(s):** Permission of department chairperson.

**CHM 495 INTRODUCTION TO RESEARCH SEMINAR**
0

Research topics presented by visiting scientists and faculty, and the results of thesis research by senior students. Required of all junior chemistry and biochemistry majors in the B.S. programs. Grading Option two.

**CHM 496 PROFESSIONAL PRACTICES SEMINAR**
0

After discussions of the chemical literature and information retrieval, resumes, graduate education, and career opportunities, students present technical talks on topics with social, ethical, or historical implications. Required of all chemistry and biochemistry majors, both B.S. and B.A.

**CHM 497 RESEARCH SEMINAR**
0

A series of seminars as described under CHM 495. Required of all senior chemistry and biochemistry majors in the B.S. programs.

**CHM 498 RESEARCH AND THESIS**
3

All students in the B.S. programs including co-op students are required to enroll for a minimum of three semester hours in a research course (CHM 498). Students may take additional research semester hours (CHM 499) if the work extends for more than two semesters. Successful completion of research courses requires the submission of a typewritten thesis and the presentation of a seminar. With the prior approval of the department chairperson, B.S. co-op students may substitute work experience for research.

**Prerequisite(s):** Permission of department chairperson.

**CHM 499 RESEARCH AND THESIS**
1-3

All students in the B.S. programs including co-op students are required to enroll for a minimum of three semester hours in a research course (CHM 498). Students may take additional research semester hours (CHM 499) if the work extends for more than two semesters. Successful completion of research courses requires the submission of a typewritten thesis and the presentation of a seminar. With the prior approval of the department chairperson, B.S. co-op students may substitute work experience for research.

**Prerequisite(s):** CHM 498; permission of department chairperson.
School of Engineering

Civil and Environmental Engineering and Engineering Mechanics

The Department of Civil and Environmental Engineering and Engineering Mechanics offers a broad-based curriculum leading to a Bachelor of Civil Engineering (BCE) degree. The BCE program offers sufficient elective courses to obtain a concentration in construction, environmental engineering, structures, water resources, geotechnical or transportation.

The mission of the program is to graduate broadly educated, technically competent individuals prepared for professional careers or for advanced studies.

Within the first several years following completion of the program, University of Dayton Bachelor of Civil Engineering graduates are expected to meet the following program educational objectives:

- have successful careers in civil engineering or non-traditional professions, or be completing graduate studies;
- conduct professional and personal endeavors in a responsible and ethical manner;
- accept leadership and service roles in their profession and community;
- be committed to continual professional and personal growth through a process of life-long learning.

Civil engineering is the profession in which knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied to develop ways to economically utilize the materials and forces of nature in improving and protecting the environment and providing structures and facilities for community, industry, and transportation for the progressive well-being of humanity.

Civil engineers, leading users of high technology in wide-ranging applications in both the public and the private sectors, are essential to the continued improvement of society. Civil engineers can enter traditional fields such as construction, bridge and building design and analysis, highway design and traffic control, water treatment and distribution, environmental engineering, water resources, and geotechnics. Their broad education however, also prepares them for materials engineering, engineering management, and the aerospace, power, and automotive industries. Civil engineering has applications in conceptual and detail design, field operations, computers, and consulting.

Before enrolling in any engineering course required by the Civil Engineering Program, a grade of C- or better must be earned in all of the prerequisites courses for students majoring in civil engineering. Also, courses designated CEE or EGM may be repeated only once by students majoring in civil engineering.

Members of the student chapters of the American Society of Civil Engineers (ASCE), Chi Epsilon, Institute of Transportation Engineers (ITE), and National Society of Professional Engineers (NSPE) have the opportunity to meet regularly with practicing engineers in the Dayton community.

Faculty

Faris A. Malhas, Chairperson
Professors Emeriti: Bogner, Payne, Phillips, Whitney
Distinguished Service Professor: Ryckman
Professors: Brockman, Malhas, J. Saliba
Associate Professor: Zoghi
Assistant Professors: Donaldson, Eustace, Farhey, Taylor
Lecturers: Alakkad, Chase
Adjunct Assistant Professor: McCrate
# Majors/Minors

**Major/Minor Name**  
Bachelor of Civil Engineering (CEE)

## First-Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 101</td>
<td>INTRODUCTION TO CIVIL ENGINEERING</td>
<td>0</td>
</tr>
<tr>
<td>CHM 123-123L</td>
<td>GENERAL CHEMISTRY (CHM 123)</td>
<td>4</td>
</tr>
<tr>
<td>EGR 100</td>
<td>ENRICHMENT WORKSHOP</td>
<td>0 - 3</td>
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<tr>
<td>EGR 101</td>
<td>INTRODUCTION TO ENGINEERING DESIGN</td>
<td>2 - 3</td>
</tr>
<tr>
<td>ENG 101-102 or 114</td>
<td>COLLEGE COMPOSITION I (ENG 101)</td>
<td>3 - 6</td>
</tr>
<tr>
<td>198</td>
<td>FRESHMAN WRITING SEMINAR (ENG 114)</td>
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</tr>
<tr>
<td>HST 103 or 198</td>
<td>THE WEST AND THE WORLD (HST 103)</td>
<td>3</td>
</tr>
<tr>
<td>MTH 168</td>
<td>ANALYTIC GEOMETRY AND CALCULUS I</td>
<td>4</td>
</tr>
<tr>
<td>MTH 169</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
<td>4</td>
</tr>
<tr>
<td>PHL 103</td>
<td>INTRODUCTION TO PHILOSOPHY</td>
<td>3</td>
</tr>
<tr>
<td>PHY 206</td>
<td>GENERAL PHYSICS I - MECHANICS</td>
<td>3</td>
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<tr>
<td>REL 103</td>
<td>INTRODUCTION TO RELIGION</td>
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</table>

**General Elective Requirement**  
3 Sem. Hrs.

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## Sophomore-Year

### First-Term

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CEE 213</td>
<td>SURVEYING</td>
<td>2</td>
</tr>
<tr>
<td>CEE 221L</td>
<td>CIVIL COMPUTATION LABORATORY</td>
<td>2</td>
</tr>
<tr>
<td>CEE 408</td>
<td>SEMINAR</td>
<td>0</td>
</tr>
<tr>
<td>CHM 124</td>
<td>GENERAL CHEMISTRY</td>
<td>3</td>
</tr>
<tr>
<td>EGM 201</td>
<td>MECHANICS I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 218</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
<td>4</td>
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<tr>
<td>PHY 207</td>
<td>GENERAL PHYSICS II - ELECTRICITY AND MAGNETISM</td>
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### Second-Term

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CEE 214</td>
<td>HIGHWAY GEOMETRICS</td>
<td>2</td>
</tr>
<tr>
<td>CEE 408</td>
<td>SEMINAR</td>
<td>0</td>
</tr>
<tr>
<td>CMM 110</td>
<td>GROUP DECISION MAKING</td>
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</tr>
<tr>
<td>CMM 111 or 112</td>
<td>INFORMATIVE PUBLIC SPEAKING (CMM 111)</td>
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<tr>
<td>CMM 113</td>
<td>INTERVIEWING</td>
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<tr>
<td>EGM 202</td>
<td>DYNAMICS</td>
<td>3</td>
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<tr>
<td>EGM 303</td>
<td>MECHANICS II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 219</td>
<td>APPLIED DIFFERENTIAL EQUATIONS</td>
<td>3</td>
</tr>
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</table>

**General Education Requirement**  
3 Sem. Hrs.

### Third-Term

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CEE 215L</td>
<td>SURVEYING FIELD PRACTICE</td>
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## Junior-Year

### First-Term

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<th>Course Title</th>
<th>Sem. Hrs.</th>
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</thead>
<tbody>
<tr>
<td>CEE 313-313L</td>
<td>HYDRAULICS (CEE 313)</td>
<td>4</td>
</tr>
<tr>
<td>CEE 316</td>
<td>ANALYSIS OF STRUCTURES I</td>
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<tr>
<td>CEE 320-320L</td>
<td>CIVIL ENGINEERING ANALYSIS (CEE 320)</td>
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<tr>
<td>CEE 408</td>
<td>SEMINAR</td>
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<tr>
<td>GEO 218</td>
<td>ENGINEERING GEOLOGY</td>
<td>3</td>
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<tr>
<td>PHL 316 or REL 369</td>
<td>ENGINEERING ETHICS (PHL 316)</td>
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2 of 6
Second-Term

<table>
<thead>
<tr>
<th>Code</th>
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<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>CEE 310L</td>
<td>CIVIL ENGINEERING LABORATORY</td>
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</tr>
<tr>
<td>CEE 312-312L</td>
<td>GEOTECHNICAL ENGINEERING (CEE 312)</td>
<td>4</td>
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<tr>
<td>CEE 312-312L</td>
<td>GEOTECHNICAL ENGINEERING LABORATORY (CEE 312L)</td>
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</tr>
<tr>
<td>CEE 317</td>
<td>ANALYSIS OF STRUCTURES II</td>
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<tr>
<td>CEE 333</td>
<td>WATER RESOURCES ENGINEERING</td>
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<tr>
<td>CEE 408</td>
<td>SEMINAR</td>
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<tr>
<td>ECO 300</td>
<td>PRINCIPLES OF ECONOMICS</td>
<td>3</td>
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<tr>
<td>Technical elective²</td>
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Senior-Year

First-Term

<table>
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<tr>
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<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>CEE 403</td>
<td>TRANSPORTATION ENGINEERING</td>
<td>3</td>
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<tr>
<td>CEE 408</td>
<td>SEMINAR</td>
<td>0</td>
</tr>
<tr>
<td>CEE 411</td>
<td>DESIGN OF STEEL STRUCTURES</td>
<td>3</td>
</tr>
<tr>
<td>CEE 412</td>
<td>DESIGN OF CONCRETE STRUCTURES</td>
<td>3</td>
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<tr>
<td>CEE 420</td>
<td>ENGINEERING ECONOMICS</td>
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<tr>
<td>CEE 434</td>
<td>WATER &amp; WASTEWATER ENGINEERING</td>
<td>3</td>
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<tr>
<td>CEE 434L</td>
<td>WATER &amp; WASTEWATER ENGINEERING LABORATORY</td>
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<td>CEE elective²³</td>
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Second-Term

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>CEE 408</td>
<td>SEMINAR</td>
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<tr>
<td>CEE 450</td>
<td>CIVIL ENGINEERING DESIGN</td>
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<tr>
<td>HST 343</td>
<td>HISTORY OF CIVIL ENGINEERING</td>
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<tr>
<td>Technical elective²</td>
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<td>3</td>
</tr>
<tr>
<td>CEE electives²³</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

¹Three semester hours waived if accepted into ENG 198 or ENG 114.
²Select from list approved by the Department of Civil and Environmental Engineering and Engineering Mechanics.
³May be used to concentrate studies in the areas of construction, environmental, structures, soils, transportation, and water resources engineering.
⁴Admittance into CEE 450 requires successful completion of all required engineering courses with an average academic unit GPA of no less than 2.0, or the approval of the chair.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 101</td>
<td>INTRODUCTION TO CIVIL ENGINEERING</td>
<td>0</td>
</tr>
<tr>
<td>CEE 198</td>
<td>RESEARCH AND INNOVATION LABORATORY</td>
<td>1-6</td>
</tr>
<tr>
<td>CEE 213</td>
<td>SURVEYING</td>
<td>2</td>
</tr>
<tr>
<td>CEE 214</td>
<td>HIGHWAY GEOMETRICS</td>
<td>2</td>
</tr>
</tbody>
</table>

Introduction to the civil engineering faculty, facilities, and curriculum; to the career opportunities offered by the civil engineering profession; and to the areas of specialization within civil engineering.

Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

Theory of measurements, computation, and instrumentation. Boundary and construction surveys, triangulation, and level net adjustments. First term, each year.

Corequisite(s): MTH 168.
Study of circular and spiral curves, vertical curves, grade lines, earthwork and mass diagram, slope and grade stakes, and contour grading. Second term, each year.

**Prerequisite(s):** CEE 213.

**CEE 215L** SURVEYING FIELD PRACTICE

Field work and computation in topography, highway surveying, triangulation, level net, celestial observations, evaluation of errors, and preparation of plans. Five eight-hour days a week for three weeks. Summer, each year.

**Prerequisite(s):** CEE 214.

**CEE 221L** CIVIL COMPUTATION LABORATORY

Introduction to commonly-used software in civil engineering profession. Emphasis on the use of spreadsheets to solve civil engineering problems. Introduction to computer aided drawing and design and the use of popular CADD packages in the civil engineering profession.

**CEE 298** RESEARCH AND INNOVATION LABORATORY

Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

**CEE 301L** CIVIL ENGINEERING LABORATORY

Experiments and studies relating the engineering properties of certain building materials to their fundamental nature and composition. Second term, each year.

**Prerequisite(s):** EGM 303.

**CEE 312** GEOTECHNICAL ENGINEERING

Principles of soil structures, classification, capillarity, permeability, flow nets, shear strength, consolidation, stress analysis, slope stability, lateral pressure, bearing capacity, and piles. Second term, each year.

**Prerequisite(s):** CEE 313, 313L; EGM 303; GEO 218.

**Corequisite(s):** CEE 312L.

**CEE 312L** GEOTECHNICAL ENGINEERING LABORATORY

Laboratory tests to evaluate and identify soil properties for engineering purposes. Design problems are also included. Second term, each year.

**Corequisite(s):** CEE 312.

**CEE 313** HYDRAULICS

Basic principles of fluid mechanics in closed conduits and open channels. Principles include fluid statics, conservation of mass, conservation of momentum, conservation of energy, and fluid dynamics. Presentation of fluid mechanics principles through the solution of practical problems and a comprehensive semester project. First term, each year.

**Prerequisite(s):** EGM 202.

**Corequisite(s):** CEE 313L.

**CEE 313L** HYDRAULICS LABORATORY

Laboratory experiments and problems associated with CEE 313. First term, each year.

**Corequisite(s):** CEE 313.

**CEE 316** ANALYSIS OF STRUCTURES I

Elastic analysis of structures; deflection, moment-area theorems; conjugate-beam; virtual work influence lines; shear center; unsymmetrical bending; stresses and strains at a point; theories of failure, stiffness matrices and use of software to analyze structures. First term, each year.

**Prerequisite(s):** EGM 303.

**CEE 317** ANALYSIS OF STRUCTURES II
Elastic analysis of structures; virtual work; Castigliano's theorems; slope deflection and moment distribution; computer analysis of structural systems, influence lines, column analogy, limit analysis. Second term, each year.

**Prerequisite(s):** CEE 316.

**CEE 320** CIVIL ENGINEERING ANALYSIS

Mathematical modeling and numerical solution of civil engineering problems: basic concepts of probability and statistics with emphasis on applications to structures, transportation, and hydraulics problems; application of numerical computational methods in civil engineering problems. First term, each year.

**Prerequisite(s):** EGM 202, 303.

**Corequisite(s):** CEE 320L; MTH 219.

**CEE 320L** CIVIL ENGINEERING ANALYSIS LABORATORY

Development and use of customized software applications that utilize numerical concepts presented in CEE 320 to solve civil engineering problems in environmental, geotechnical, structures, transportation, and water resources. Emphasis on the use of popular application development environments.

**Corequisite(s):** CEE 320.

**CEE 333** WATER RESOURCES ENGINEERING

Integrated study of the principles of water movement and management. Focus areas include hydrology, water distribution, waste water collection and storm water management. Second term, each year.

**Prerequisite(s):** CEE 313, 313L.

**CEE 390** ENVIRONMENTAL POLLUTION CONTROL

Study of environmental pollution problems relating to air, water, and land resources. Causes and effects of pollution technology for solving problems. Legal and political considerations. For juniors and seniors other than civil engineering students. Credit may not be applied toward civil engineering degree.

**Prerequisite(s):** Some knowledge of chemistry.

**CEE 398** RESEARCH AND INNOVATION LABORATORY

Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

**CEE 403** TRANSPORTATION ENGINEERING

Fundamentals of transportation engineering, including design, construction, maintenance, and economics of transportation facilities. Design of pavement structures and drainage systems.

**Prerequisite(s):** CEE 214, 310L.

**CEE 408** SEMINAR

Practice in the presentation and discussion of papers; lectures by staff and prominent engineers. Attendance required of all civil engineering sophomores, juniors, and seniors.

**CEE 411** DESIGN OF STEEL STRUCTURES

Design and behavior of structural steel connections, columns, beams, and beams subjected to tension, compression, bending, shear, torsion, and composite action.

**Prerequisite(s):** CEE 310L, 316.

**CEE 412** DESIGN OF CONCRETE STRUCTURES

Design and behavior of reinforced concrete slabs, beams, columns, walls, and footings subjected to tension, compression, bending, shear, and torsion.

**Prerequisite(s):** CEE 310L, 316.

**CEE 420** ENGINEERING ECONOMICS
Basic principles and techniques of economic analysis of engineering projects.

**Prerequisite(s):** MTH 218.

**CEE 421 CONSTRUCTION ENGINEERING**

Organization, planning, and control of construction projects, including a study of the use of machinery, economics of equipment, methods, materials, estimates, cost controls, and fundamentals of CPM and PERT contracts and bonds and legal aspects of contracting. Departmental elective.

1

**CEE 422 DESIGN AND CONSTRUCTION PROJECT MANAGEMENT**

Fundamentals of project management as they relate to the design and construction professional, and the application of project management techniques to the design and construction of major projects. Departmental elective.

1

**CEE 434 WATER & WASTEWATER ENGINEERING**

Problems of water pollution; development and design of public water supply and waste water disposal systems; legal, political, ethical, and moral considerations. First term, each year.

**Prerequisite(s):** CHM 124.

**Corequisite(s):** CEE 434L.

**CEE 434L WATER & WASTEWATER ENGINEERING LABORATORY**

Laboratory exercises, demonstrations, and design problems associated with water and wastewater engineering.

**Corequisite(s):** CEE 434.

**CEE 450 CIVIL ENGINEERING DESIGN**

Group design of complete projects, drawing on the knowledge acquired in a spectrum of civil engineering subjects.

**Prerequisite(s):** CEE 312, 333, 403, 411, 412, 434.

**CEE 463 HAZARDOUS WASTE ENGINEERING**

The fundamental principles of the design and operation of hazardous waste remediation processes. Characterizing contaminated sites and conducting treatability studies for the selection of the most appropriate remediation strategy. Department Elective.

**CEE 498 RESEARCH AND INNOVATION LABORATORY**

Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

1-6

**CEE 499 SPECIAL PROBLEMS IN CIVIL ENGINEERING**

Particular assignments to be arranged and approved by chairperson of the department. Departmental elective.

1-6
College of Arts and Sciences
(CMM) Communication

The course requirement for communication majors is thirty-nine semester hours. Teacher licensure through the E11A program is an option for communication majors. Consult department chairperson for details.

A minor in communication consists of fifteen semester hours.

A minor in political journalism is available for political science majors. The political journalism minor consists of eighteen semester hours.

The department also offers a Bachelor of Arts with a major in theatre. See THR.

Faculty
Donald D. Yoder, Chairperson
Professors Emeriti: Blatt, Gilvary, Harwood, Mortan, Rang, Wolff
Professors: Cusella, Lain, Robinson, Skill, Thompson
Associate Professors: Anderson, Griffin, Wallace, Walters, Yoder
Assistant Professors: Dunlevy, Han, Langhorne, Scanlin, Taylor, Vororeanu
Media Executive in Residence: Walters
Lecturers: Angel, Combs, Flynn, Hariharan, Miller, Oh, Parsons

Majors/Minors

| Major/Minor Name | Bachelor of Arts with a major Communication (Electronic Media Concentration) (RTV) |

<table>
<thead>
<tr>
<th>Electronic Media(^1)</th>
<th>(39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113, 201, 202, 330, 340, 343, 397(^2)</td>
<td>19-21</td>
</tr>
<tr>
<td>Select one course from:</td>
<td>3</td>
</tr>
<tr>
<td>CMM 341, 342, 344</td>
<td></td>
</tr>
<tr>
<td>Select two courses from:</td>
<td>6</td>
</tr>
<tr>
<td>CMM 345, 440, 442, 444, 446, 449, 498</td>
<td></td>
</tr>
<tr>
<td>CMS 414</td>
<td></td>
</tr>
<tr>
<td>Select courses in CMM or THR(^3)</td>
<td>9</td>
</tr>
<tr>
<td>Select 12 semester hours in a single academic discipline selected from business, education or the social sciences(^4)</td>
<td>12</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

<table>
<thead>
<tr>
<th>Humanities and Fine Arts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Literature: English or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Any courses in CMM or THR(^3)</td>
<td>9</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities (excludes CMM courses)</td>
<td>3-9</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
</tbody>
</table>
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies (ENG 101-102 or 114 or 198) 3-6
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

\(^1\)At least twenty-four of the required thirty-nine semester hours in all communication concentrations must be 300-400 level. No more than six total semester hours of CMM 390, CMM 397 and CMM 498 may be applied toward the thirty-nine semester hours.

\(^2\)Dance courses in the theatre program (THR 201, 251, 261, 271, 301, 351, 361, 371) do not count toward the thirty-nine semester hours requirement.

\(^3\)Beyond the Liberal Studies requirements; six semester hours must be 300- or 400-level.

Bachelor of Arts with a major Communication (Theatre Concentration) (CTR)

<table>
<thead>
<tr>
<th>Theatre(^1)</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113, 201, 202, 330</td>
<td>12</td>
</tr>
<tr>
<td>THR 203, 310, 340, 415</td>
<td>12</td>
</tr>
<tr>
<td>Select two courses from:</td>
<td></td>
</tr>
<tr>
<td>THR 305, 307, 323, 325, 326, 330, 424</td>
<td>6</td>
</tr>
<tr>
<td>Select courses in CMM or THR(^2)</td>
<td>9</td>
</tr>
<tr>
<td>Select twelve additional semester hours in a single academic discipline selected from business, education or the social sciences(^3)</td>
<td>12</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

Social Sciences 12

Humanities and Fine Arts

Philosophy and Religious Studies 12
History 6
Literature: English or Foreign Language 3
Creative and Performing Arts 3
Foreign Language and/or Additional Arts and/or Humanities (excludes CMM courses) 3-9

Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies (ENG 101-102 or 114 or 198) 3-6
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

\(^1\)At least twenty-four of the required thirty-nine semester hours in all communication concentrations must be 300-400 level. No more than six total semester hours of CMM 390, CMM 397 and CMM 498 may be applied toward the thirty-nine semester hours.

\(^2\)Dance courses in the theatre program (THR 201, 251, 261, 271, 301, 351, 361, 371) do not count toward the thirty-nine semester hours requirement.

\(^3\)Beyond the Liberal Studies requirements; six semester hours must be 300- or 400-level.

Bachelor of Arts with a major Communication (Communication Management Concentration) (CMT)
### Communication Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113, 201, 202, 320, 321, 330, 412, 421</td>
<td>24</td>
</tr>
<tr>
<td>Select two courses from: CMM 322, 351, 352, 413, 420, 498</td>
<td>6</td>
</tr>
<tr>
<td>Select courses in CMM or THR²</td>
<td>9</td>
</tr>
<tr>
<td>Select twelve additional semester hours in a single academic discipline selected from business, education or the social sciences³</td>
<td>12</td>
</tr>
</tbody>
</table>

### Liberal Studies Curriculum

**Humanities and Fine Arts**
- Philosophy and Religious Studies: 12
- Any courses in CMM or THR²: 9
- Literature: English or Foreign Language: 3
- Creative and Performing Arts: 3
- Foreign Language and/or Additional Arts and/or Humanities (excludes CMM courses): 3-9
- Social Sciences: 12
- Mathematics (excludes MTH 102, 204, 205): 3
- Natural Sciences: 11

### Communication Competencies (ENG 101-102 or 114 or 198)
- 3-6

### Introduction to the University: ASI 150
- 0-1

### General Education courses/academic electives to total at least
- 124

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¹At least twenty-four of the required thirty-nine semester hours in all communication concentrations must be 300-400 level. No more than six total semester hours of CMM 390, CMM 397 and CMM 498 may be applied toward the thirty-nine semester hours.

²Dance courses in the theatre program (THR 201, 251, 261, 271, 301, 351, 361, 371) do not count toward the thirty-nine semester hours requirement.

³Beyond the Liberal Studies requirements; six semester hours must be 300- or 400-level.

Bachelor of Arts with a major in Communication (Communication Studies Concentration) (CSS)

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### Communication Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113, 201, 202, 330</td>
<td>39</td>
</tr>
<tr>
<td>Select courses from CMM or THR²³</td>
<td>27</td>
</tr>
<tr>
<td>Select twelve additional semester hours in a single academic discipline selected from business, education or the social sciences⁴</td>
<td>12</td>
</tr>
</tbody>
</table>

### Liberal Studies Curriculum

**Humanities and Fine Arts**
- Philosophy and Religious Studies: 12
- History: 6
- Literature: English or Foreign Language: 3
- Creative and Performing Arts: 3
- Foreign Language and/or Additional Arts and/or Humanities (excludes CMM courses): 3-9
Social Sciences: 12
Mathematics (excludes MTH 102, 204, 205): 3
Natural Sciences: 11

Communication Competencies (ENG 101-102 or 114 or 198): 3-6
Introduction to the University: ASI 150: 0-1

**General Education courses/academic electives to total at least 124**

1. At least twenty-four of the required thirty-nine semester hours in all communication concentrations must be 300-400 level. No more than six total semester hours of CMM 390, CMM 397 and CMM 498 may be applied toward the thirty-nine semester hours.
2. Approved program of study by advisor and department chair must be submitted prior to completion of eighteen semester hours.
3. Dance courses in the theatre program (THR 201, 251, 261, 271, 301, 351, 361, 371) do not count toward the thirty-nine semester hours requirement.
4. Beyond the Liberal Studies requirements; six semester hours must be 300- or 400- level.

Bachelor of Arts with a major in Communication (Journalism Concentration) (JRN)

<table>
<thead>
<tr>
<th>Journalism</th>
<th>39</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113, 201, 202, 330, 331, 430, 431, 432</td>
<td>24</td>
</tr>
<tr>
<td>Select two courses from:</td>
<td>6</td>
</tr>
<tr>
<td>CMM 332, 333, 334, 412, 416, 438, 498</td>
<td></td>
</tr>
<tr>
<td>CMS 414</td>
<td></td>
</tr>
<tr>
<td>Select courses in CMM or THR</td>
<td>9</td>
</tr>
<tr>
<td>Select twelve additional semester hours in a single academic discipline selected from business, education or the social sciences</td>
<td>12</td>
</tr>
</tbody>
</table>

**Liberal Studies Curriculum**

Humanities and Fine Arts
- Philosophy and Religious Studies: 12
- History: 6
- Literature: English or Foreign Language: 3
- Creative and Performing Arts: 3
- Foreign Language and/or Additional Arts and/or Humanities (excludes CMM courses): 0-9
- Social Sciences: 12
- Mathematics (excludes MTH 102, 204, 205): 3
- Natural Sciences: 11

Communication Competencies (ENG 101-102 or 114 or 198): 3-6
Introduction to the University: ASI 150: 0-1

**General Education courses/academic electives to total at least 124**

1. At least twenty-four of the required thirty-nine semester hours in all communication concentrations must be 300-400 level. No more than six total semester hours of CMM 390, CMM 397 and CMM 498 may be applied toward the thirty-nine semester hours.
2. Dance courses in the theatre program (THR 201, 251, 261, 271, 301, 351, 361, 371) do not count toward the thirty-nine semester hours requirement.
3. Beyond the Liberal Studies requirements; six semester hours must be 300- or 400- level.
Bachelor of Arts with a major in Communication (Public Relations Concentration) (PUB)

Public Relations

<table>
<thead>
<tr>
<th>Course(s)</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113, 201, 202, 330, 360, 412, 460, 461</td>
<td>24</td>
</tr>
<tr>
<td>Select two courses from:</td>
<td>6</td>
</tr>
<tr>
<td>CMM 331, 332, 421, 430, 469, 498</td>
<td>9</td>
</tr>
<tr>
<td>Select courses in CMM or THR³</td>
<td></td>
</tr>
<tr>
<td>Select twelve additional semester hours in a single academic discipline selected from business, education or the social sciences²</td>
<td>12</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

<table>
<thead>
<tr>
<th>Humanities and Fine Arts</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Literature: English or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities (excludes CMM courses)</td>
<td>3-9</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics (excludes MTH 102, 204, 205)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>11</td>
</tr>
</tbody>
</table>

Communication Competencies (ENG 101-102 or 114 or 198) 3-6

Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

¹At least twenty-four of the required thirty-nine semester hours in all communication concentrations must be 300-400 level. No more than six total semester hours of CMM 390, CMM 397 and CMM 498 may be applied toward the thirty-nine semester hours.

²Beyond the Liberal Studies requirements; six semester hours must be 300- or 400- level.

³Dance courses in the theatre program (THR 201, 251, 261, 271, 301, 351, 361, 371) do not count toward the thirty-nine semester hours requirement.

Minor in Communication (CMM)

<table>
<thead>
<tr>
<th>Course(s)</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110, (111 or 112), 113</td>
<td>3</td>
</tr>
<tr>
<td>Select twelve additional semester hours (300- or 400-level)¹</td>
<td>12</td>
</tr>
</tbody>
</table>

¹In consultation with the chairperson.

Minor in Political Journalism

<table>
<thead>
<tr>
<th>Course(s)</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 201, 330</td>
<td>6</td>
</tr>
<tr>
<td>Select four courses from:</td>
<td>12</td>
</tr>
<tr>
<td>CMM 331, 354, 355, 431, 432</td>
<td></td>
</tr>
</tbody>
</table>

¹Available only to political science majors.
## Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110</td>
<td>GROUP DECISION MAKING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication processes for small decision-making groups. Focus is on the development of general competencies in leadership, group roles, conflict management, agenda setting, problem analysis and research, decision making and critical thinking.</td>
<td></td>
</tr>
<tr>
<td>CMM 111</td>
<td>INFORMATIVE PUBLIC SPEAKING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication processes for presenting information in a public speaking context. Focus is on the development of general competencies in development and organization of ideas, research, adaptation to an audience, use of PowerPoint, and delivery.</td>
<td></td>
</tr>
<tr>
<td>CMM 112</td>
<td>PERSUASIVE PUBLIC SPEAKING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication processes for persuading listeners in a public speaking context. Focus is on the development of general competencies in the construction and organization of persuasive strategies, critical evaluation of arguments and evidence, research, adaptation to an audience, use of PowerPoint, and delivery.</td>
<td></td>
</tr>
<tr>
<td>CMM 113</td>
<td>INTERVIEWING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication processes for information gathering and employment interviewing. Focus is on the development of general competencies in the conduct and organization of interviews, preparation of resumes, evaluation of questions and responses, research, listening, and nonverbal communication.</td>
<td></td>
</tr>
<tr>
<td>CMM 201</td>
<td>FOUNDATIONS OF MASS COMMUNICATION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Historical development of mass media in America; survey of mass media theories, impact of mass media on people and society, the role and influence of the news media, new technologies, programming, and pressure groups.</td>
<td></td>
</tr>
<tr>
<td>CMM 202</td>
<td>FOUNDATIONS OF COMMUNICATION THEORIES AND RESEARCH</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the nature and scope of communication theories and research. Examination of how the communication discipline developed from classical traditions to its modern perspective.</td>
<td></td>
</tr>
<tr>
<td>CMM 310</td>
<td>VOICE AND DICTION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The four phases of speech production: proper breathing, phonation, resonance, and articulation. Emphasis on projection, quality and clarity of speech. Analysis of students' voices through tape recordings.</td>
<td></td>
</tr>
<tr>
<td>CMM 311</td>
<td>STUDIES IN ORAL PERFORMANCE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oral performance of poetry, prose, and drama; combining study of vocal modulations, pitch, inflection, and tone color with intellectual and emotional analysis of selections as a means of making the literature alive and immediately present.</td>
<td></td>
</tr>
<tr>
<td>CMM 312</td>
<td>LISTENING THEORY AND APPLICATION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of theories and related application during comprehensive, discriminate, empathic, and appreciative listening; emphasis on listening competently and responsibly.</td>
<td></td>
</tr>
<tr>
<td>CMM 313</td>
<td>NONVERBAL COMMUNICATION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survey of theory and research in nonverbal behavior. Examination of the influence of environmental factors, physical behavior, and vocal cues on human communication.</td>
<td></td>
</tr>
<tr>
<td>CMM 314</td>
<td>DIMENSIONS OF BRITISH COMMUNICATION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Exploration of mass media, public relations, interpersonal communication, political communication, theatre and other communication subfields in the British context. This course will be offered only through a UD study abroad program.</td>
<td></td>
</tr>
</tbody>
</table>
CMM 315  INTERNATIONAL MASS MEDIA  
Focus on the mass media of a particular foreign country or region of the world. Topics may include media content, use, societal effects and ownership.

CMM 320  INTERPERSONAL COMMUNICATION  
Study of communication behavior in a variety of dyadic relationships including acquaintance, friendship, work, romantic, and family. Focus on communicative behavior and communicative processes in relationship development including building trust, managing conflict, negotiating power, and listening empathetically.

CMM 321  SMALL GROUP COMMUNICATION  
Examination of theory and research related to communicative processes in small, task-oriented groups. Applications include a focus upon decision-making strategies, leadership, conflict management, and cohesion.

CMM 322  INTERVIEWING FOR COMMUNICATION AND BUSINESS  
Analysis of communication in structured dyadic interaction. Emphasis on the following types of interviews: information-gathering, employment, appraisal, and persuasive. Application through role-playing and feedback systems.

CMM 330  MEDIA WRITING  
Developing and practicing writing skills for journalism, public relations, and electronic media. Study and practice of ethics in determining news values, gathering information, and communicating clearly and accurately for mass audiences. AP style emphasized. Studio fee.

CMM 331  FEATURE WRITING  
Developing and writing nonfiction stories for newspapers and magazines. Story types include personality profile, color, background, consumer, and commentary. Study and practice in journalistic reporting skills and literary writing techniques. Emphasis on content, organization, style, and accuracy. Strong command of AP style necessary. Studio fee.  
**Prerequisite(s):** CMM 330.

CMM 332  PUBLICATION DESIGN  
Layout and design of print and electronic publications, including newsletters, brochures, and web-based publications. Instruction in desktop and web publishing software, use of type and illustration, cost appraisal, printing methods. Studio fee.

CMM 333  FREE-LANCE WRITING  
Steps of free-lance publication, from market analysis to query letters to writing and rewriting. Mostly nonfiction, magazine markets, some newspaper and nonfiction book markets.

CMM 334  SPORTS WRITING  
In addition to game stories, attention is also paid to writing about personalities, legal issues, and financial issues on the interscholastic, intercollegiate, amateur, and professional levels. Strong writing skills and knowledge of journalistic style expected.  
**Prerequisite(s):** CMM 330.

CMM 340  FUNDAMENTALS OF BROADCASTING  
Survey of broadcasting, with emphasis on television and radio networks, programming, regulation, audience measurement, audience effects, and technology. Although attention is given both to the origins and future of the field, contemporary broadcasting is emphasized.

CMM 341  AUDIO PRODUCTION  
Study of the theories, processes, and technologies of audio production practices that can be applied in radio, television, and multimedia production. Exercises in recording of voice, music, and special effects. Course includes the operation of basic studio and field equipment, including analog and basic digital recording and editing. Studio fee.
CMM 342 FUNDAMENTALS OF VIDEO PRODUCTION
Explores the techniques of studio and remote video production. Includes the technical and creative aspects of planning and script preparation, producing, directing, technical directing, graphics, editing, camera, lighting, and sound for a variety of video programs. Studio fee.

CMM 343 SCRIPTWRITING FOR ELECTRONIC MEDIA
Study of concrete approaches to and practice with the kinds of writing being done professionally in all program types on television and radio including corporate media writing. Prerequisite(s): CMM 330 or permission of instructor.

CMM 344 MULTIMEDIA DESIGN AND PRODUCTION I
Introduction to producing in the interactive media of CD-ROM and other digital formats. Reviews basic object linking and embedding in familiar computer programs such as Word, PowerPoint, and Freelance Graphics. Students build skills in multimedia authoring, using all the fundamental tools of graphics, text, audio, and video. Studio fee.

CMM 345 CLASSIC AMERICAN FILM
A survey of the artistic evolution of American film, including the analysis of styles of producing, scripting, acting, directing, lighting, sound, cinematography, set design and editing through viewing of classic American films and selected international films that have influenced the art of American filmmaking.

CMM 350 PROPAGANDA ANALYSIS
Examination of major propaganda campaigns in history beginning with Greek democracy. Emphasis on twentieth century propaganda as psychological warfare. Principles of Aristotelean rhetorical theory applied to propaganda analysis.

CMM 351 PUBLIC SPEAKING
Oral communication in professional situations. Adaptation of principles of effective speaking to specific audiences and occasions. Delivery of informational, problem-solving, and special-occasion speeches.

CMM 352 PERSUASION
Study of the use of communication to form attitudes. Examination of attitudes and social influence and their effects on human behavior. Topics include selected theories of persuasion, argument construction, and practical application.

CMM 353 SPEECH WRITING
Study of speech structure and composition. Critical analysis of model speech, in conjunction with the preparation and presentation of original speeches on current public questions.

CMM 354 POLITICAL CAMPAIGN COMMUNICATION
Examination of theory and research on the role, processes and effects of communication in political campaigns with emphasis on mass media, public speaking, debates, advertising, and interpersonal communications.

CMM 355 RHETORIC OF SOCIAL MOVEMENTS
Study of rhetorical communication in American social movements through examination of the strategies, themes and tactics used by agitators and the institutional responses to discourse aimed at social change.

CMM 360 PRINCIPLES OF PUBLIC RELATIONS
Survey of the field of public relations emphasizing writing and public relations, theoretical implications of the field, the practitioner's role in organization and the community.

CMM 390 INDEPENDENT STUDY
1-3
Supervised study involving directed readings, individual research (library, field, or experimental), or projects in the specialized areas of communication. May be repeated for up to six semester hours.

**Prerequisite(s):** Permission of department chairperson.

**CMM 397 COMMUNICATION PRACTICUM**

1-3

Contracted participation in an approved on-campus communication organization. One semester hour per term to a maximum of three semester hours. Grading Option Two only.

**CMM 410 FAMILY COMMUNICATION**

Study of the family from a communication perspective, considering the communication processes within the family and the extent to which communication affects and is affected by the family.

**CMM 411 HEALTH COMMUNICATION**

Examination of communication theory and research as they relate to health care. Issues include reassurance, the role of the patient, interviews, health organizations, the media and health, compliance, providing explanations, and health care professions frequently neglected.

**CMM 412 STATISTICAL METHODS IN COMMUNICATION**

Study of data gathering methods in communication. Practice in sampling, survey methods, questionnaire development, and experimental design. Emphasis on the use of logic to interpret data and to support claims.

**CMM 413 COMMUNICATION IN THE INFORMATION AGE**

Examination of issues related to development, economics, programming, and the future of new mass communication technologies.

**Prerequisite(s):** CMM 201 or permission of instructor.

**CMM 416 DEVELOPMENT OF MASS MEDIA**

History and analysis of the development and interdependence of mass media, print and electronic. Emphasis on its role in political and economic progress of U.S. and attendant responsibility.

**CMM 420 COMMUNICATION AND CONFLICT MANAGEMENT**

Examination of the functions of communication in interpersonal conflict such as marital conflict, role conflict, and organizational conflict. Communicative strategies and tactics for managing conflict.

**CMM 421 COMMUNICATION IN ORGANIZATIONS**

Analysis of message initiation, diffusion, and reception in organizations; analysis of the role of communication in developing productive work relationships, management practices, and organizational cultures.

**CMM 430 COPYEDITING**

Editing, particularly news copy editing and headline writing. Emphasis on clear and concise wording; proper spelling, grammar, and punctuation; and accuracy. Strong command of AP style necessary. Studio fee.

**Prerequisite(s):** CMM 330.

**CMM 431 PUBLIC AFFAIRS REPORTING**

Investigative and specialized reporting on matters of public concern. Practice in gathering information from primary and secondary sources, and writing about complex subjects for mass audiences. Studio fee.

**Prerequisite(s):** CMM 330.

**CMM 432 THE LAW AND NEWS MEDIA**

Exploration of the free press clause of the First Amendment, as defined by the courts and media practice. Study of First Amendment core values and theories. Investigation into law on libel, privacy, censorship, access to information, and copyright, as well as regulation of broadcast, cable and new electronic media.

**Prerequisite(s):** Junior standing.

**CMM 439 SPECIAL TOPICS IN JOURNALISM**

3-6
Concentrated study in special areas of journalism. May be repeated with change of topic.

CMM 440  BROADCAST NEWS  
Study of the process and practice of news gathering and writing for radio and television. Course includes research, analysis, writing, and editing news and features, as well as legal, and ethical concerns of broadcast news. 
Prerequisite(s): CMM 330.

CMM 442  ADVANCED TELEVISION PRODUCTION  
Advanced techniques of both studio and electronic field production and post-production editing for television. 
Prerequisite(s): CMM 342.

CMM 444  MULTIMEDIA DESIGN AND PRODUCTION II  
Advanced level multimedia production emphasizing client-based project generation through a design/production team approach. Focus is on interface design; project planning, script writing, story boarding; digital image, sound and video editing; and the use of authoring software. 
Prerequisite(s): CMM 344.

CMM 446  ELECTRONIC MEDIA MANAGEMENT  
Survey of the leadership/management roles and responsibilities of broadcasting, cable television and corporate media enterprises. 
Prerequisite(s): CMM 340.

CMM 449  TOPICS IN ELECTRONIC MEDIA  
Concentrated study in special areas of electronic media production, criticism, and management. May be repeated once with change of topic. Depending on topic, prerequisites may be imposed.

CMM 452  PUBLIC DISCOURSE AND CRITICISM  
Examination of the foundations of the field of communication. Major focus on the development of rhetorical theory with attention to rhetorical analysis and criticism.

CMM 460  PUBLIC RELATIONS WRITING  
Study, development and application of public relations strategies. Emphasis on strategically effective, factually accurate and grammatically sound written communications for organizational and mass audiences. 
Prerequisite(s): CMM 330, 360.

CMM 461  PUBLIC RELATIONS CAMPAIGNS  
Students plan and carry out a public relations program for an established professional organization, work out solutions to communication and public relations problems, and prepare written campaign materials and handbooks. 
Prerequisite(s): CMM 330, 360, 460; senior standing.

CMM 469  TOPICS IN PUBLIC RELATIONS  
A concentrated study in specific areas of public relations. Development of specialized projects. May be repeated once with change of topics. 
Prerequisite(s): CMM 360 or permission of instructor

CMM 477  HONORS THESIS PROJECT  
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and department chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons. 
Prerequisite(s): Approval of University Honors Program.

CMM 478  HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons. **Prerequisite(s):** Approved 477 and approval of University Honors Program.

**CMM 498 COMMUNICATION INTERNSHIP**
Communication work experience in an approved organization. Student must be in good academic standing. Students are normally limited to a maximum of three semester hours. Under exceptional circumstances, students may petition the department chair for an additional three semester hours if the second internship is at a different organization and the student can demonstrate that the position offers a unique and significant educational opportunity not available through the first internship. Grading Option Two only. **Prerequisite(s):** CMM 110, (111 or 112), 113, 201, 202, 330; permission of department chairperson.

**CMM 499 SPECIAL TOPICS IN COMMUNICATION**
Concentrated study in specific areas of speech communication. May be repeated once with change of topic.

**CMS 316 INTERCULTURAL COMMUNICATION**
Study of interpersonal communication with emphasis on people from different countries and with different cultural backgrounds. Focus on the influence of culture on communication and language, verbal and non-verbal communication similarities and differences from culture to culture, and challenges of successful intercultural communication.

**CMS 414 GLOBAL COMMUNICATION**
Introduction to the main topics in the field of global communication. Emphasis on comparative mass media and current issues in global communication. Will not satisfy humanities requirement.

**CMS 415 WOMEN AND COMMUNICATION**
Seminar focusing on gender differences in communication, unique aspects to women's communication, and women's rhetoric. Current theory and research examined. Will not satisfy humanities requirement.
College of Arts and Sciences
(CPS) Computer Science  (Collapse Description)
The Department of Computer Science offers two programs leading to the Bachelor of Science in computer science, and in computer information systems. Both programs have the same introductory core sequence of computer science courses. The main differences in the programs are in the mathematics and science requirements and in the application emphases.

Computer information systems: This program emphasizes computer science concepts with particular attention to systems analysis and design, computer communications, and applications in one of the concentration areas listed in the description of the program requirements.

Computer science: Computer science is the study of algorithms and their implementation in the environment of computer hardware. It includes the study of data structures, software design, programming languages, and computer elements and architecture. A student entering this program is expected to be able to take calculus and non-remedial English. A transfer student must ordinarily be in good standing and have a cumulative average of at least 2.5 based on a scale of 4. Each student must take appropriate upper-level electives to ensure depth in at least three of the core subject areas of data structures, software design, programming language concepts and architecture as arranged with the advisor and department chair.

Computer science and computer information systems majors are required to attain grades of C- or better in CPS 150, 151 and 350.

A minor in computer science consists of twenty-four semester hours. A minor in computer information systems consists of twenty-three semester hours.

Faculty
James P. Buckley, Chairperson
Professors Emeriti: Kester, Winslow
Associate Professors: Buckley, Gowda, Lang, Schoen, Seitzer, Smith, Srinathran
Assistant Professors: Courte, Perugini, Tran
Lecturers: Reynolds, Starkey
Adjunct Associate Professor: Lokai

Majors/Minors  (Collapse All)
Major/Minor Name

Bachelor of Science with a major in Computer Information Systems (CIS)  

<table>
<thead>
<tr>
<th>Major/Minor Name</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>42</td>
</tr>
<tr>
<td>CPS 150, 151, 242, 250, 310, 312, 341, 346, 350</td>
<td>30</td>
</tr>
<tr>
<td>Select four additional courses (CPS 343 and above)</td>
<td>12</td>
</tr>
<tr>
<td>Concentration: An approved minor, or the following courses:</td>
<td>15-27</td>
</tr>
<tr>
<td>ACC 207, 208</td>
<td></td>
</tr>
<tr>
<td>ECO 203, 204</td>
<td></td>
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<tr>
<td>MGT 301</td>
<td></td>
</tr>
<tr>
<td>MKT (300 or 301)</td>
<td></td>
</tr>
<tr>
<td>Breadth Requirement</td>
<td>41-50</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics</td>
<td>9</td>
</tr>
</tbody>
</table>
MTH 148, 149, 367

Social and Behavioral Sciences1 6
Humanities1 9
Philosophy and Religious Studies (includes PHL 319)1 12

Communication Competencies 0-9
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 120

1This requirement will be satisfied in some cases by the minor that is chosen.

Bachelor of Science with a major in Computer Science (CPS)

Sem. Hrs.

**Computer Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS 150, 151, 242, 250, 341, 346, 350, 387</td>
<td>27</td>
</tr>
</tbody>
</table>

Select three of the following four groups:

Select one course from the following:
- CPS 460

Select two courses from the following:
- CPS 310, 312, 415, 446

Select two courses from the following:
- CPS 343, 444, 445

Select one course from the following:
- CPS 388, 470, 472

Select two additional courses at 300-level or above. 6

Natural Sciences 8

Breadth Requirement

Natural Sciences (select one grouping of courses from the following): 14
- BIO 151-151L, 152-152L
- CHM 123-123L, 124-124L
- GEO 115-115L, 116-116L
- PHY 206, 207, 210L, 211L

Select two additional courses acceptable for Science or Engineering majors

Mathematics 18
- MTH 168, 169, 218, 310, 367

Social and Behavioral Sciences 6

Humanities 9

Philosophy and Religious Studies (including PHL 319) 12

Communication Competencies 0-9

Humanities 9

General Education courses/academic electives to total at least 120

Minor in Computer Information Systems (CIS)

Sem. Hrs.

**Computer Information Systems**

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS 150, 151, 242, 310, 312</td>
<td>17</td>
</tr>
</tbody>
</table>

Select two additional courses (320-level or above, excludes CPS 435 & 437) 6

Minor in Computer Science (CPS)
### Computer Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS 150, 151, 250, 350</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Select three additional courses (320-level or above, excludes CPS 435 &amp; 437)</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

**Courses (Collapse All Courses)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS 107</td>
<td>COMPUTERS AND SOCIETY</td>
<td>3</td>
</tr>
<tr>
<td>Non-technical introductory survey of the history and organization of digital computers; the diverse application of computers in government, business, education, and the arts; and the psychological and sociological impact of the computer age. Not open to CPS, CIS, or PCS majors.</td>
<td></td>
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</tr>
<tr>
<td>CPS 111</td>
<td>INTRODUCTION TO PERSONAL COMPUTERS</td>
<td>3</td>
</tr>
<tr>
<td>Emphasis on use of operating system, particularly file organization, and applications: word processor, spreadsheet, database and presentation software.</td>
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</tr>
<tr>
<td>CPS 130</td>
<td>INTRODUCTION TO ENGINEERING PROGRAMMING</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to fundamentals of programming using the language C, including algorithms and control structures, with applications drawn from engineering. Intended for students in electrical engineering. <strong>Prerequisite(s):</strong> EGR 101.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPS 132</td>
<td>COMPUTER PROGRAMMING FOR ENGINEERING AND SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of computer programming including algorithms, program structure, library routines, debugging, and program verification. Calculus-based computer solutions of problems from science and engineering using C++. <strong>Corequisite(s):</strong> MTH 168.</td>
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</tr>
<tr>
<td>CPS 144</td>
<td>INTRODUCTION TO COMPUTER PROGRAMMING</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of computer programming including algorithms, program structure, library routines, debugging, and program verification. Computer solutions of problems from social sciences using a suitable compiler language such as Visual Basic.</td>
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<td></td>
</tr>
<tr>
<td>CPS 150</td>
<td>ALGORITHMS AND PROGRAMMING I</td>
<td>4</td>
</tr>
<tr>
<td>Algorithms, programs, and computers. Algorithm development, basic programming and programming structure. Debugging and program verification. Data representation. Computer solutions to numeric and non-numeric problems using a compiler language. <strong>Prerequisite(s):</strong> CPS 150.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPS 151</td>
<td>ALGORITHMS AND PROGRAMMING II</td>
<td>4</td>
</tr>
<tr>
<td>Continuation of CPS 150. Emphasis on program design, development and style, string processing, data structures, program modularity, and abstract data type, using a compiler language. <strong>Prerequisite(s):</strong> CPS 150.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPS 225</td>
<td>PROGRAMMING FOR BUSINESS SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>Process of software development for business system implementation. Fundamental programming concepts including program design, documentation, development and testing of computer solutions of business problems using C++. Intended for students majoring in MIS. <strong>Prerequisite(s):</strong> MIS 175.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPS 242</td>
<td>INTRODUCTION TO FILE PROCESSING</td>
<td>3</td>
</tr>
<tr>
<td>The file processing environment, blocking and buffering, secondary storage devices, sequential file organization, relative file organization, and various indexed file organizations using a suitable compiler language such as COBOL. <strong>Prerequisite(s):</strong> CPS 151.</td>
<td></td>
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</tr>
</tbody>
</table>
CPS 250 ALGORITHMS AND PROGRAMMING III
Study of computer organization and architecture by developing basic programming skills in an assembler language (currently IBM Mainframe) and in C.
Prerequisite(s): CPS 151.

CPS 309 TOPICS IN COMPUTER SCIENCE
Lectures or laboratory work in areas of current interest. May be taken more than once. Does not count as upper level credit for majors/minors.

CPS 310 SYSTEMS ANALYSIS
Methodologies for producing software, software development life cycles, top-down approach, data flow diagram, data dictionary, mini-specifications, in/output design, E-R diagrams, normalization, introduction to object oriented analysis.
Prerequisite(s): CPS 151 or 225.

CPS 312 SYSTEMS DESIGN
Structured design, tools of structured design, coupling and cohesion of modules, transform and transaction analyses, packaging, optimization, data-oriented and object oriented design methodologies, automated design tools.
Prerequisite(s): CPS 310.

CPS 341 DISCRETE STRUCTURES
Logic and proofs, sets and counting, Boolean algebra, graph theory, directed graphs, mathematical machines, formal languages and grammars.
Prerequisite(s): CPS 150.

CPS 343 COMPARATIVE LANGUAGES
Language design issues, formal syntax specification, data types and storage methods, activation records and procedural object oriented, functional, and logic programming paradigms.
Prerequisite(s): CPS 350.

CPS 346 OPERATING SYSTEMS I
Semaphores, conditions, monitors, and kernels. Concurrent programming, interrupts, memory, and process management. Design and implementation of multithreaded and distributed system components using concurrent languages.
Prerequisite(s): CPS 250, 350.

CPS 350 DATA STRUCTURES AND ALGORITHMS
Advanced concepts of linear data structures, stacks, queues, and abstract data types. Basic and advanced concepts of trees, graphs, hash tables, heaps, algorithm design and analysis techniques.
Prerequisite(s): CPS 250.

CPS 353 NUMERICAL METHODS I
Study of the algorithms of numerical mathematics with emphasis on interpolation, the solution of nonlinear equations, and linear systems of equations including matrix methods; analysis of errors associated with the algorithms.
Prerequisite(s): (CPS 132 or 150); MTH 169.

CPS 354 NUMERICAL METHODS II
Study of the algorithms of numerical mathematics with emphasis on functional approximation, numerical differentiation and integration, numerical solution of ordinary differential equations and boundary value problems; analysis of errors associated with the algorithms.
Prerequisite(s): CPS 353.

CPS 387 COMPUTER SYSTEM DESIGN I
Study of the elements of computer design. Design of combinatorial and sequential logic circuits using current integrated circuit devices. Discussion of encoders, decoders, registers, counters, etc. as applied to design and use of control, arithmetic, logic, and storage units. Instruction set, addressing...
modes and CPU design. Laboratory experiments with these devices.

**Prerequisite(s):** CPS 250, 341.

**CPS 388**  
**COMPUTER SYSTEM DESIGN II**

Detailed analysis of a specific microcomputer programmed in machine, assembler, and a higher-level language. Discussion of interfacing with devices such as displays, terminals, and other computers. Experiments with such interfacing in the laboratory.

**Prerequisite(s):** CPS 387.

**CPS 411**  
**MANAGEMENT INFORMATION SYSTEMS**

The management information systems environment. The theory, technology, development of information systems. Emphasis on integration of information systems for decision support and other management information requirements.

**Prerequisite(s):** CPS 310.

**CPS 415**  
**SOFTWARE TESTING**

A detailed examination of the software testing process and its role in the software lifecycle. Topics include functional testing, structural testing, methods for designing, generating and evaluating test data, coverage hierarchies, theoretical and practical limitations of testing, testability measures, regression testing, and specialized testing such as methods for testing object oriented software, graphical user interfaces.

**Prerequisite(s):** (CPS 310 or 418); CPS 341, 350.

**CPS 418**  
**SOFTWARE ENGINEERING**

A thorough examination of modern software methodologies, of the managerial and technological skills essential to the design and construction of high-quality software, and of the productivity and human factors in software development.

**Prerequisite(s):** CPS 350.

**CPS 420**  
**OBJECT ORIENTED SYSTEMS DEVELOPMENT**

An overview of object-oriented analysis and design methodologies and Unified Modeling Language (UML), Use Case Model, Logical Model, Component Model, Deployment Model and Design Patterns. The course will involve a team project using a state-of-the-art Computer Aided Software Engineering (CASE) tool.

**Prerequisite(s):** CPS 310, 350.

**CPS 422**  
**SOFTWARE PROJECT MANAGEMENT**

An overview of software project management tasks, software development methodologies, project planning techniques, algorithmic cost estimation models, Function Point Estimation, risk management, prototyping, management of software reuse, software maintenance, quality assurance, configuration management, Capability Maturity Model (CMM), and evaluation of CASE tools.

**Prerequisite(s):** CPS 310 or 418.

**CPS 424**  
**DISCRETE EVENT SIMULATION TECHNIQUES**

Design and use of simulation models; study and use of special-purpose simulation languages such as GPSS and GASP IV, SIMSCRIPT II.5. Applications.

**Prerequisite(s):** CPS 151.

**CPS 430**  
**DATABASE MANAGEMENT SYSTEMS**

Physical and logical organization of databases: the entity-relationship model; relational database model; the data definition and data manipulation language of a commercial database management system; integrity constraints; conceptual database design.

**Prerequisite(s):** CPS 350.

**CPS 432**  
**DATABASE MANAGEMENT SYSTEMS II**

Study of query execution and optimization, transaction management, concurrency control, recovery and security techniques. Advanced data models and emerging trends in database systems, like object oriented
database systems, distributed database systems, the client-server architecture, multidatabase and heterogeneous systems. Other current database topics and emerging technologies will be discussed.

**Prerequisite(s):** CPS 430.

**CPS 437** SYSTEM ARCHITECTURES AND NETWORKING

Issues and techniques used in the physical design of computer-based information systems. Basic operating systems, hardware architecture and networking principles. Intended for students majoring in MIS; not open to students majoring in CPS, CIS, or PCS.

**Prerequisite(s):** MIS 380, 385.

**CPS 444** SYSTEMS PROGRAMMING I

Analysis of compilers and their construction; programming techniques discussed in the current literature; advanced computer applications in mathematical and nonnumeric areas.

**Prerequisite(s):** CPS 346, 350.

**CPS 445** SYSTEMS PROGRAMMING II

A continuation of CPS 444, with emphasis on the application of the topics discussed.

**Prerequisite(s):** CPS 444.

**CPS 446** OPERATING SYSTEMS II

Design and implementation of a multi-user operating system, including concurrent processes, usage of monitors and kernels, process and device scheduling, virtual memory with paging, process synchronization and communication, input and output spooler, file systems, reliability and protection, interrupts, distributed system concepts.

**Prerequisite(s):** CPS 346.

**CPS 455** NUMERICAL ANALYSIS I

Error analysis, mathematical development of functional approximation including interpolation, quadrature, numerical differentiation, solution of ordinary differential equations.

**Prerequisite(s):** CPS 353.

**CPS 456** NUMERICAL ANALYSIS II

Mathematical development of the method of least squares, minimax approximation, solution of partial differential equations, applications.

**Prerequisite(s):** CPS 455.

**CPS 460** COMPUTER GRAPHICS

Introduction to graphics devices and software graphic primitives (points, lines, characters), two-dimensional transformations, clipping, survey of display devices and methods. Graphic input devices, representation of curves and surface in space.

**Prerequisite(s):** CPS 350.

**CPS 470** DATA COMMUNICATION

Principles of telecommunications hardware and software. Analysis of communication protocol layers with respect to performance, error handling, and control functions. Review of troubleshooting techniques currently in use.

**Prerequisite(s):** CPS 350.

**CPS 472** COMPUTER NETWORKING


**Prerequisite(s):** CPS 470.

**CPS 477** HONORS THESIS PROJECT

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic
may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**CPS 478**  
**HONORS THESIS PROJECT**  
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**CPS 480**  
**ARTIFICIAL INTELLIGENCE**  
Basic concepts and techniques of intelligent systems. Emphasis on representations, problem solving, search strategies, expert systems, mVgic systems, and AI programming. Design and implementation of AI applications.

**Prerequisite(s):** CPS 350.

**CPS 481**  
**ADVANCED ARTIFICIAL INTELLIGENCE**  
An examination of several advanced sub-disciplines of Artificial Intelligence including areas such as speech recognition, planning, machine learning, advanced multiple agent systems and related topics. An exploration of underlying theoretical issues as well as the status of current problems and applications.

**Prerequisite(s):** CPS 480.

**CPS 482**  
**AUTOMATA THEORY**  
Finite automata, sequential machines, survey of formal languages, introduction to computability, recursive functions, and Turing machines.

**Prerequisite(s):** CPS 341.

**CPS 496**  
**COOPERATIVE EDUCATION**  
Computer science cooperative education work experience in an approved organization. Not open to students with credit in CPS 497. Credit does not apply to major requirements. Repeat to a maximum of three semester hours.

**Prerequisite(s):** Twelve hours of upper-level CPS courses with a GPA of 3.0; total ninety semester hours with a GPA of 2.75; permission of the department in advance of the work.

**CPS 497**  
**INTERNSHIP**  
Computer science work experience in an approved organization. Not open to students with CPS 496 credit. Credit does not apply to major requirements. Repeat to a maximum of three semester hours.

**Prerequisite(s):** Twelve semester hours of upper-level CPS courses with GPA of 3.0; total ninety semester hours and 2.75 GPA; permission of department in advance of the work.

**CPS 498**  
**PROBLEMS IN (NAMED AREA)**  
Individual readings and research in a specialized area. (See CPS 499.) By arrangement. May be taken more than once for additional credit.

**Prerequisite(s):** Permission of department chairperson.

**CPS 499**  
**(SPECIAL TOPICS)**  
Lectures or laboratory work in such areas as advanced artificial intelligence, computer architecture, information retrieval, microprogramming, multiprogramming techniques, numerical analysis, graphics, data communications, parallel processing, software development, distributed computing, multimedia computing. By arrangement. May be taken more than once.

**Prerequisite(s):** Permission of department chairperson.
College of Arts and Sciences
(CJS) Criminal Justice Studies  (Collapse Description)

The Bachelor of Arts with a major in criminal justice studies, is a broadly structured interdisciplinary and criminological curriculum designed to introduce students to 1) a critical theory of criminal justice/criminology and 2) requisite knowledge for advanced study or public service, e.g., law enforcement and/or investigative services at the local, state and national levels; line entry careers in the correctional field-probation and parole counseling, community programs, and other rehabilitative services, as well as staff positions in the judiciary system.

In addition to courses in criminal justice studies, students take courses in political science, psychology, sociology, and social work.

Those who enter the University of Dayton as first-year students, or as transfers without associate degrees, will be classified under Option A, a total program sequence. Students who transfer here with acceptable associate degrees in specific fields similar or closely related to criminal justice will be classified under Option B, a transfer program sequence. All students transferring into the curriculum must be in good academic standing and meet entry requirements.

A minor in criminal justice studies consists of eighteen semester hours.

Proficiency examinations for limited CJS credit are available only to majors who are in-service personnel, i.e., law enforcement officers, probation and parole officials, or judicial personnel. Under Option A, students are limited to only six semester hours of proficiency examination credit, and under Option B, only three semester hours. In-service students should make their formal appeals to the director's office at the beginning of each term, so that it can be determined by the Criminal Justice Studies Advisory Committee whether scheduling a proficiency examination during that term is warranted.

Students intending to major or minor in CJS should consult with the program director to begin planning their CJS program. It is the sole responsibility of students to inform themselves of whatever changes occur in the curriculum and to observe all the regulations, procedures, and requirements of the University and the criminal justice studies program.

Faculty

Arthur J. Jipson, Director
Tim Apolito, Coordinator for Community Relations

Additional faculty who teach in the criminal justice studies program include several social sciences (sociology, psychology, political science, social work): Adamitis (Sociology), Ahern (Political Science), Becker (Sociology), Davis-Berman (Social Work), Donnelly (Sociology), Ingram (Political Science), Majka, L. (Sociology), Majka, T. (Sociology), Nelson (Political Science), Reeb (Psychology), Renzetti (Sociology), Thornton (Social Work).

Majors/Minors  (Collapse All)

Major/Minor Name
Bachelor of Arts with a major in Criminal Justice Studies (Option A) (CJS)

<table>
<thead>
<tr>
<th>Major/Minor Name</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice Studies&lt;sup&gt;1&lt;/sup&gt;</td>
<td>36</td>
</tr>
<tr>
<td>CJS 101, 207, 447</td>
<td>9-10</td>
</tr>
<tr>
<td>SOC 305</td>
<td>3</td>
</tr>
<tr>
<td>Behavior (select two)</td>
<td>6</td>
</tr>
</tbody>
</table>

http://bulletin.udayton.edu/bulletin.ud?v=16&g=0&pp=1000002850&...
PSY 363, 461
SOC 325, 327, 410
SWK 325

Institutions (select two)
CJS 303
POL 303, 305, 360
SOC 323
SWK 305

Law (select two)
CJS 303, 315
POL 301, 411, 450
SOC 326

Social Structure (select two)
CJS 322, 336
SOC 328, 339, 351

Liberal Studies Curriculum

<table>
<thead>
<tr>
<th>Area</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and Fine Arts</td>
<td>6</td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Literature: English or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities</td>
<td>3-9</td>
</tr>
<tr>
<td>ENG 272, (370 or 371 or 474)</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics (excludes MTH 102, 204, 205)²</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>11</td>
</tr>
</tbody>
</table>

Communication Competencies

0-9

Introduction to the University: ASI 150
0-1

General Education courses/academic electives to total at least

124

1Internships and independent studies may be taken in CJS, POL, PSY, and SOC that have a Criminal Justice Studies emphasis. No more than six semester hours may be taken. Also to be offered is CJS 300 Criminal Justice Studies Career Development, CJS 399, Special Topics in Criminal Justice Studies and CJS 497, Service Learning Experience. This course work is in addition to the thirty-six hours required for a CJS interdisciplinary major in the Option A total program sequence. They are not to be used as substitute courses for those listed in the areas of behavior, institutions, law and/or social structure, unless approved in advanced by the director of the Criminal Justice Studies program and the College of Arts and Sciences.

2CJS 207, Research Methods in Criminal Justice Studies, requires as a prerequisite MTH 207 or PSY 216 or SOC 308. Neither PSY 216 nor SOC 308 fills the three semester hours mathematics requirement for graduation.

Bachelor of Arts with a major in Criminal Justice Studies (Option B) (CJS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJS 207, 447</td>
<td>6</td>
</tr>
<tr>
<td>SOC 305</td>
<td>3</td>
</tr>
<tr>
<td>Behavior (select one)</td>
<td>3</td>
</tr>
<tr>
<td>PSY 363, 461</td>
<td></td>
</tr>
<tr>
<td>SOC 325, 327, 410</td>
<td></td>
</tr>
<tr>
<td>SWK 325</td>
<td></td>
</tr>
<tr>
<td>Institutions (select one)</td>
<td>3</td>
</tr>
<tr>
<td>CJS 303</td>
<td></td>
</tr>
<tr>
<td>POL 303, 305, 360</td>
<td></td>
</tr>
<tr>
<td>SOC 323</td>
<td></td>
</tr>
<tr>
<td>SWK 305</td>
<td></td>
</tr>
</tbody>
</table>
Law (select one)  
CJS 305, 315  
POL 351, 411, 450  
SOC 326  
Social Structure (select one)  
CJS 322, 336  
SOC 328, 339, 351

Liberal Studies Curriculum

Humanities and Fine Arts
   Philosophy and Religious Studies 12  
   History 6  
   Literature: English or Foreign Language 3  
   Creative and Performing Arts 3  
   Foreign Language and/or Additional Arts and/or Humanities 3-9  
   ENG 272, (370 or 371 or 474)  
Social Sciences 12  
Mathematics (excludes MTH 102, 204, 205) 3  
Natural Sciences 11

Communication Competencies 0-9

General Education courses/academic electives to total at least 4 60

1 To be admitted as a major in the program under Option B, a transfer student must have received an accredited associate degree in corrections, law enforcement, police administration, police science, or a similar field of criminal justice and must have a 2.5 cumulative grade-point average on a 4.0 grading system. For criminal justice studies majors who have completed the basic requirements for an accredited two-year criminal justice degree, sixty semester hours beyond the associate degree is suggested, which includes a minimum of twenty-one semester hours in the program. The Liberal Studies Curriculum is required for all criminal justice studies transfer majors in addition to the baccalaureate degree requirements if they were not included in the candidates' associate degree programs.

2 Internships and Independent Studies may be taken in CJS, POL, PSY, and SOC that have a criminal justice studies emphasis. No more than six semester hours may be taken. Also to be offered is CJS 300 Criminal Justice Studies Career Development, CJS 399, Special Topics in Criminal Justice Studies and CJS 497, Service Learning Experience. This course work is in addition to the hours required for a CJS Interdisciplinary major in the Option B, transfer program sequence. They are not to be used as substitute courses for those listed in the areas of behavior, institutions, law and/or social structure, unless approved in advance by the director of the Criminal Justice Studies program and the College of Arts and Sciences.

3 CJS 207, Research Methods in Criminal Justice Studies, required as a prerequisite MTH 207 or PSY 216 or SOC 308. Neither PSY 216 nor SOC 308 fills the three semester hours mathematics requirements for graduation.

4 To be considered a viable candidate for graduation, a student must have completed a minimum of 124 semester hours with accepted transfer credits.

Minor in Criminal Justice Studies (CJS)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJS 101</td>
<td>3-4</td>
</tr>
<tr>
<td>SOC 305</td>
<td>3</td>
</tr>
<tr>
<td>Select twelve additional semester hours (300- or 400-level)</td>
<td>12</td>
</tr>
</tbody>
</table>

1 One course from each of the four areas involving behavior, institutions, law, and social structure.

Courses (Collapse All Courses)
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJS 101</td>
<td>INTRODUCTION TO CRIMINAL JUSTICE STUDIES</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the field of criminal justice studies, stressing the theoretical foundations, origin, nature, methods, and limitations of criminal justice studies as a college curriculum.</td>
<td></td>
</tr>
<tr>
<td>CJS 207</td>
<td>RESEARCH METHODS IN CRIMINAL JUSTICE STUDIES</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Review of the nature, language, and processes of inquiry involving experiments, studies, surveys, and investigations. The instrumentation, types, and structures of content analysis, questionnaires, interviews, and structured observation, including, analytic techniques, data processing resources, and preparation of research reports are also examined. <strong>Prerequisite(s):</strong> MTH 207 or PSY 216 or SOC 308.</td>
<td></td>
</tr>
<tr>
<td>CJS 300</td>
<td>CRIMINAL JUSTICE STUDIES CAREER DEVELOPMENT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Exploration of career opportunities and the professional career placement process including setting goals and identifying educational objectives, noting professional concerns, the role of a given criminal justice organization, and assessing experiences.</td>
<td></td>
</tr>
<tr>
<td>CJS 303</td>
<td>CORRECTIONS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The administration of correctional institutions and other detention facilities with emphasis on probation and parole systems to include the rehabilitation and treatment of the incarcerated with reference to correctional law cases.</td>
<td></td>
</tr>
<tr>
<td>CJS 305</td>
<td>CRIMINAL LAW</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Principles of criminal liability, preparation of case materials, court procedures, and case disposition.</td>
<td></td>
</tr>
<tr>
<td>CJS 315</td>
<td>CRIMINAL PROCEDURE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fundamentals of criminal procedure: arrest, search, and seizure; interrogation, constitutional limitations upon state and federal rules of criminal procedure. <strong>Prerequisite(s):</strong> A course in criminal law.</td>
<td></td>
</tr>
<tr>
<td>CJS 322</td>
<td>POLICING AND SOCIETY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Analyzes the history of policing in society and assesses the social and political forces that are correlated with both the rise of formal policing and the variety of structures law enforcement agencies have assumed. Reviews the primary functions of policing in American society and examines those issues affecting federal, state, county, municipal and private policing.</td>
<td></td>
</tr>
<tr>
<td>CJS 330</td>
<td>COMPARATIVE CRIMINAL JUSTICE SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survey of cross-cultural uniformities and diversities in law-enforcement agencies, correctional systems, and the courts in selected countries. <strong>Prerequisite(s):</strong> An introductory course in criminal justice.</td>
<td></td>
</tr>
<tr>
<td>CJS 399</td>
<td>SPECIAL TOPICS IN CRIMINAL JUSTICE</td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td>An extensive examination of a current topic affecting the criminal justice system and its law enforcement, corrections or judicial components. May be repeated to a maximum of three semester hours when the topic changes.</td>
<td></td>
</tr>
<tr>
<td>CJS 440</td>
<td>INDEPENDENT STUDY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Directed study and research on selected topics of significant academic publications in law enforcement and criminal justice. <strong>Prerequisite(s):</strong> An introductory CJS course; permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>CJS 447</td>
<td>SENIOR SEMINAR IN CRIMINAL JUSTICE STUDIES</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Seminar to identify and discuss the contemporary issues in justice administration. Topics to be assigned by instructor and presented for class discussion by students.</td>
<td></td>
</tr>
<tr>
<td>CJS 477</td>
<td>HONORS THESIS PROJECT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the</td>
<td></td>
</tr>
</tbody>
</table>
University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

Prerequisite(s): Approval of University Honors Program.

CJS 478 HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

Prerequisite(s): Approval of University Honors Program.

CJS 495 INTERNSHIP IN CRIMINAL JUSTICE I
Supervised experience solely in a civilian capacity in a criminal justice or law-enforcement agency. Open to pre-service criminal justice studies majors only; in-service students do not qualify. Students who enroll for internship credit are not given a stipend. Credit granted only under Grading Option Two.

Prerequisite(s): 2.5 cumulative grade-point average; sophomore status; permission of program director.

CJS 496 INTERNSHIP IN CRIMINAL JUSTICE II
Continuation of CJS 495.

CJS 497 SERVICE LEARNING EXPERIENCE
Supervised community research or service experience that complements a specific upper division course in Criminal Justice Studies. No more than three semester hours of Social Science 497 credits can count for graduation. Repeatable up to three semester hours.

Prerequisite(s): Permission of instructor.
Corequisite(s): CJS course (300- or 400-level).
School of Business Administration
(ECO) Economics and Finance (Collapse Description)

The Department of Economics and Finance offers majors in business economics and in finance for students in the School of Business Administration. The department also offers majors in economics and in applied mathematical economics for students in the College of Arts and Sciences (search these majors to view their requirements.) Minors in economics, business economics and finance are available to all students.

Faculty
Nancy Mohan, Chairperson
Don Shimmin, Assistant to Chair
Professors: Chen, Frasca, Rapp
Associate Professors: Gustafson, Hadley, Mohan, Poitras, Ruggiero, Sauer, Wang
Assistant Professors: Balcarcel, Lung
Lecturers: Douglas, John, Sherer, Shimmin

Sub-Categories / Concentrations / Focus Areas
Business Economics  Finance

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 203</td>
<td>PRINCIPLES OF MICROECONOMICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An introduction to consumer and producer behavior in a market economy, demand and supply, pricing and firm behavior under perfect and imperfect competition, and the distribution of income. Discussion of current topics in microeconomics may be included. If credit is earned for ECO 203, it may not be earned for ECO 300.</td>
<td></td>
</tr>
<tr>
<td>ECO 204</td>
<td>PRINCIPLES OF MACROECONOMICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introductory economic analysis of the macroeconomy; the determination of gross national product, employment, inflation and the interest rate in the U.S. economy. Government policy, money and banking, and international trade are analyzed. If credit is earned for ECO 204, it may not be earned for ECO 300.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): ECO 203 recommended.</td>
<td></td>
</tr>
<tr>
<td>ECO 300</td>
<td>PRINCIPLES OF ECONOMICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An introductory, calculus enhanced analysis of consumer and producer behavior in a market economy, demand and supply, consumer choice theory, pricing and firm behavior under perfect and imperfect competition, game theory, the macro-economy, the determination of gross domestic product, employment, inflation, and the interest rate and the effect of government policy. If credit is earned for ECO 300, it may not be earned for ECO 203 or ECO 204. Prerequisite(s): (MTH 168; engineering major) or permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>ECO 310</td>
<td>ECONOMICS OF THE ENVIRONMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to the economics of the global environment including an analysis of market failure as a cause of environmental degradation. Topics covered include cost-benefits analysis, criteria for public investment, regulation of the environment, and the sustainable global environment. Prerequisite(s): ECO 203 or 300.</td>
<td></td>
</tr>
</tbody>
</table>
ECO 340  MANAGERIAL ECONOMICS
Application of economic models to managerial decision making. Topics include demand analysis, forecasting demand, short-run cost analysis, long-run cost and production functions, pricing, and risk and uncertainty. May not get credit for both ECO 340 and ECO 346.
Prerequisite(s): ECO 203 or 300.

ECO 346  INTERMEDIATE MICROECONOMIC ANALYSIS
Analysis of the theory of consumer behavior, production theory, equilibrium of the firm, price determination in various market structures, distribution of income, allocation of resources, and welfare economics. May not get credit for both ECO 346 and ECO 340.
Prerequisite(s): ECO 203 or 300.

ECO 347  INTERMEDIATE MACROECONOMIC ANALYSIS
National income accounting and the determination of the level of income and employment; classical, Keynesian, and post-Keynesian models; private, government, and foreign sectors; theories of inflation and economic growth.
Prerequisite(s): ECO 204 or 300; ECO 203 recommended.

ECO 390  ANTITRUST ECONOMICS
Study of how economic analysis has been applied in the interpretation of the antitrust statutes. Examines major anti-trust laws and relevant case law; reviews economic theories of market behavior.
Prerequisite(s): ECO 203 or 300.

ECO 410  BUSINESS AND ECONOMIC FORECASTING
Forecasting techniques, including ARIMA time series models, econometric models, moving averages, exponential smoothing, and time series decomposition, are used to forecast business and economic variables. Data sources, selection of appropriate forecasting tools and models, and evaluation of forecast results are studied.
Prerequisite(s): (ECO 203, 204) or ECO 300; Statistics (DSC 211 or MTH 207 or MTH 367 or MTH 412).

ECO 415  GAME THEORY WITH BUSINESS APPLICATIONS
Introductory course in strategic decision making; provides a thorough discussion of the basic techniques of applied game theory and of systematic thinking in making business decisions. Among the topics covered with applications to business are equilibrium strategies, understanding situations involving conflict and cooperation, auction design and bidding strategy, and bargaining and negotiations.
Prerequisite(s): ECO 203 or 300.

ECO 441  ECONOMETRICS
Training in the art of making economic measurements from empirical data using regression analysis as the principle tool; use of computer software to estimate and test regression equations; interpretation of results using statistical inference.
Prerequisite(s): ((ECO 203, 204) or ECO 300; differential calculus and basic statistics) or permission of instructor.

ECO 442  MONEY AND BANKING
Principles of money and monetary systems; commercial banking and the role of the Federal Reserve System; monetary theory and policy; the mechanism of international payments.
Prerequisite(s): (ECO 203, 204) or ECO 300.

ECO 445  PUBLIC FINANCE
The economic aspects of government finance at the local, state, and especially the national level; the behavioral effects of various taxes, efficiency in spending, the changing role of the U.S. government, fiscal policy, and intergovernmental revenue and expenditure programs; emphasis on relating analytical tools to current developments.
Prerequisite(s): (ECO 203, 204) or ECO 300.
ECO 460 ECONOMIC DEVELOPMENT AND GROWTH
Study of various dynamic economic theories of growth and structural change; the role of particular factors of production and related noneconomic variables in the development process, primarily, though not exclusively, of Third World nations.
Prerequisite(s): (ECO 203, 204) or ECO 300.

ECO 461 INTERNATIONAL ECONOMICS
Major issues surrounding international trade and finance, the economic interdependence of nations and businesses, essential theoretical and empirical tools necessary to monitor and analyze international economic phenomena, and the application of these tools to contemporary business problems and issues.
Prerequisite(s): (ECO 203, 204) or ECO 300; ECO 346 recommended.

ECO 471 LABOR ECONOMICS
Theory of labor supply and demand, human capital theory, and the process by which wages are determined in various factor markets; applications to topics of unemployment, unions, migration, discrimination, and skill differentials.
Prerequisite(s): (ECO 203, 204) or ECO 300.

ECO 480 SPORTS ECONOMICS
The application of economic analysis to the sports industry. Examines demand and efficiency in the product market; the labor market for professional athletes and mechanisms for restricting competition in that market; problems in achieving an efficient allocation of resources in the sports industry.
Prerequisite(s): (ECO 203 or 300); (DSC 211 or MTH 207) or equivalent.

ECO 485 URBAN AND REGIONAL ECONOMICS
Treatment of certain theoretical concepts such as location theory and theories of land use and land rent; an economic interpretation for the existence of cities; applying economic analysis to the problems of traffic congestion, pollution, race, poverty, and urban sprawl.
Prerequisite(s): (ECO 203 or 300); (DSC 211 or MTH 207); ECO 346 recommended.

ECO 490 SENIOR SEMINAR IN APPLIED ECONOMICS
Economic analysis applied in an area of topical interest chosen by the instructor; includes the application of theoretical, mathematical, and statistical methods mastered in previous economics courses. This capstone course provides students an opportunity to extend their proficiency in economic analysis through application and discussion in a small group setting.
Prerequisite(s): Twelve semester hours in Economics.

ECO 491 HONORS THESIS
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

ECO 492 HONORS THESIS
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

ECO 494 SEMINAR
Subject varies from time to time. May be taken more than once if topic changes. Prerequisites to be announced.

ECO 496 COOPERATIVE EDUCATION
Optional full-time work period off campus alternating with study period on campus. (See Chapter X; consult Cooperative Education Office for details.) Does not count toward economics major. Permission of chairperson
required. Economics or Business Economics majors only.

**Prerequisite(s):** Permission of department chairperson.

ECO 497 INTERNSHIP FOR GENERAL ELECTIVE CREDIT
Practical work experience associated with career development and career exploration relating to the student's major. Permission of the department chair or designee required. Does not replace economics courses for the economics major. Economics or Business Economics majors only.

**Prerequisite(s):** Forty-five semester hours of credit.

ECO 498 INDEPENDENT STUDY IN ECONOMICS
Directed readings and research in selected fields of economics. The number of semester hours will depend on the amount of work chosen. The course will involve periodic discussions with faculty and other students in the course. May be taken more than once for additional credit.

**Prerequisite(s):** 3.0 GPA in economics with a minimum of nine semester hours in economics; nomination by faculty; permission of the department chairperson.

FIN 250 PERSONAL FINANCE
Principles and techniques for handling personal financial decisions: personal budgeting, obtaining credit, life and casualty insurance, buying a home, buying an automobile, and savings and investments. For both business and nonbusiness majors. Does not count toward the finance major.

FIN 301 BUSINESS FINANCE
Principles and techniques used by business firms in managing and financing their current and fixed assets; sources of funds within the capital markets; determinants of the financial structure; analytical techniques.

**Prerequisite(s):** (ACC 200 or 207 or 301); (ECO 203 or 300); junior standing.

FIN 310 INVESTMENT CENTER PEER MENTOR
Members of the Center for Portfolio Management and Security Analysis Staff mentor peers in effectively utilizing the various software and database package resources within the Center for Portfolio Management and Security Analysis and assist in a range of developmental programs. Requires permission of the CFPM director. Does not count toward the finance major.

**Grading option 2.**

**Prerequisite(s):** Permission of Center for Portfolio Management.

FIN 321 FINANCING ENTREPRENEURIAL VENTURES
Focuses on financial aspects of starting, growing, and harvesting entrepreneurial ventures. Includes emphasis placed on how common financing deals are structured, common financing pitfalls, and various legal documentation used to consummate financial transactions. Same as MGT 321.

**Prerequisite(s):** FIN 301 or MGT 320; junior standing.

FIN 330 INSURANCE AND RISK MANAGEMENT
Study of the basic concepts of business and personal risks from the standpoint of creation, identification, reduction, elimination, and evaluation of risks; the use of insurance in meeting problems of risk.

**Prerequisite(s):** FIN 301.

FIN 336 PRINCIPLES OF REAL ESTATE
Survey of real estate industry with emphasis on its structure, regulation, growth, needs, financing, and future. Analysis of the methods for determining land use and evaluation of the theories of city development.

**Prerequisite(s):** FIN 301.

FIN 360 INVESTMENTS
The principles and techniques used by the investor in selecting securities, emphasis on the stock and bond markets; security valuation methods leading to the selection of individual issues; portfolio theory.

**Prerequisite(s):** FIN 301.
FIN 371  FINANCIAL MARKETS AND INSTITUTIONS  3
Study of financial markets and financial institutions, including the Federal
Reserve, interest rate theories, money and capital market securities, interest
rate futures, options and swaps, international financial markets, such as
commercial banking, insurance, and investment banking.
Prerequisite(s): FIN 301.

FIN 401  ADVANCED FINANCIAL ANALYSIS  3
Advanced study of current developments in financial planning, acquisition of
funds, and asset management valuation; policy strategy and techniques in
financial decision making.
Prerequisite(s): FIN 301.

FIN 410  INVESTMENT CENTER OPERATING COMMITTEE  1
Members of the Center for Portfolio Management and Security Analysis
Operating Committee provide leadership within the CFPM structure.
Responsible for achieving assigned unit objectives, managing a team, and
taking a leadership position for a range of center initiatives and projects that
directly impact the effective implementation of the Center's overall strategic
objectives. Requires permission of the CFPM director. Does not count
toward the finance major. Grading option 1.
Prerequisite(s): Permission of Center for Portfolio Management.

FIN 430  SHORT-TERM FINANCIAL MANAGEMENT  3
Covers several areas of the corporate treasury function with a focus on
managing current assets and liabilities to enhance the firm's liquidity,
profitability, and value. Specific areas include analyzing short-term financial
decisions such as financing inventory and receivables, granting, trade credit,
and making short-term investments and short-term risk management for
interest rates and foreign exchange. This course introduces students to the
techniques and practices used to evaluate short-term financial decisions.
Prerequisite(s): FIN 301; (FIN 360 or 401).

FIN 450  INTERNATIONAL BUSINESS FINANCE  3
Introduction to problems facing financial management of international
companies, including foreign exchange risk, working capital and capital
budgeting decisions for multinational corporations, international financing,
accounting and control.
Prerequisite(s): FIN 301.

FIN 460  PORTFOLIO MANAGEMENT AND SECURITY ANALYSIS  3
Advanced valuation theory and security analysis; portfolio construction,
evaluation, and management.
Prerequisite(s): FIN 360.

FIN 460L  PORTFOLIO MANAGEMENT LAB  1
Provide analyst support for the Seminar in Investments course and the Flyer
Investments team. Requires previous or concurrent enrollment in FIN 460
and instructor permission. Does not count toward the finance major. Grading
option 2.

FIN 470  FIXED INCOME SECURITIES  3
Introduction to the analytical/computational techniques for pricing fixed
income securities, interest rate derivatives, and implementing effective
portfolio strategies to control interest rate risk and enhance return.
Prerequisite(s): FIN 360 or 371.

FIN 471  MANAGEMENT OF FINANCIAL INSTITUTIONS  3
Integrated and comprehensive analysis of financial institutions that include
depository institutions, insurance companies, securities firms, and
investment companies.
Prerequisite(s): FIN 371.

FIN 475  COMMERCIAL BANK MANAGEMENT  3
Explores the environment in which banks must operate, the financial
statements of banks, and a thorough study of bank management topics
which include: asset-liability management, the investment portfolio, sources
of funds, and the loan portfolio.  
**Prerequisite(s):** FIN 301; (FIN 360 or 371).

**FIN 480 OPTIONS AND FUTURES MARKETS**
Study of options, futures, and other derivatives fundamentals, trading strategies, hedging, speculation, and arbitrating, pricing theories, and market regulations.  
**Prerequisite(s):** FIN 301; (FIN 360 or 371).

**FIN 491 HONORS THESIS**
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

**FIN 492 HONORS THESIS**
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

**FIN 493 SEMINAR IN INVESTMENTS**
Application of investment theory and techniques in a real-world setting. Students manage a funded portfolio in terms of establishing objectives, selecting securities to buy (sell), and evaluating portfolio performance. Emphasis is placed upon attempting to identify undervalued common stocks. Admission to the course is limited and must be approved by the instructor.  
**Prerequisite(s):** FIN 360; FIN 460 highly recommended.

**FIN 493L SEMINAR IN INVESTMENTS LAB**
Provide leadership in facilitating the supporting analyst role for the Seminar in Investments course. Requires previous or concurrent enrollment in FIN 493 and instructor permission. Does not count toward the finance major.  
Grading option 1.

**FIN 494 SEMINAR**
Subject varies from time to time. May be taken more than once if topic changes.

**FIN 496 COOPERATIVE EDUCATION**
Optional full-time work period off campus alternating with study period on campus. (See Chapter X; consult Cooperative Education Office for details.) Does not count toward finance major. Finance majors only.  
**Prerequisite(s):** Permission of department chairperson.

**FIN 497 INTERNSHIP FOR GENERAL ELECTIVE CREDIT**
Practical work experience associated with career development and career exploration relating to the student's major. Permission of department chair or designee required. Does not replace finance courses for the finance major. Finance majors only.  
**Prerequisite(s):** Forty-five semester hours of credit.

**FIN 498 INDEPENDENT STUDY IN FINANCE**
Directed readings and research in selected fields of finance. The number of semester hours will depend on the amount of work chosen. The course will involve periodic discussions with other students and faculty in the program. May be taken more than once for additional credit.  
**Prerequisite(s):** 3.0 GPA in Finance; minimum of nine semester hours in Finance; nomination by faculty; permission of department chairperson.
School of Engineering
Electrical and Computer Engineering (Collapse Description)

The Department of Electrical and Computer Engineering offers two ABET accredited undergraduate programs leading to the Bachelor of Electrical Engineering and the Bachelor of Science in Computer Engineering. The department offers masters and doctoral degrees in electrical engineering and is closely coupled to the graduate program in electro-optics where both master's and doctoral degrees are offered. The electrical and computer engineering department offers an accelerated 3 year B.S. - M.S. program, where students completing their baccalaureate degree can attain their Master of Science in Electrical Engineering within one additional year. The department also offers an undergraduate concentration in electro-optics, in collaboration with the Physics Department and the Electro-Optics Program.

The mission of the Department of Electrical and Computer Engineering is to develop in students the skills and knowledge to learn, lead and serve in their profession and their community.

Our electrical engineering alumni will be prepared to:

1. find rewarding careers as engineering professionals. As electrical engineers they will be prepared to design and develop new products, technologies and processes that incorporate one or more of the following elements: analog and digital circuits, signals and systems, propagation and processing of signals, and control systems.
2. continue their professional education either formally, in graduate school, professional schools, or through industrial training programs; or informally, though activities such as continuing education, attendance in short courses, professional workshops and conferences.
3. exercise and further develop their skills in professional communication through activities such as project briefings, conference presentations, technical reports and manuals, and journal publications.
4. participate in activities for the betterment of society, and carry on the traditions of the University of Dayton by maintaining high ethical standards in their professional activities, and by serving their country and community through service, leadership and mentoring.

Our computer engineering alumni will be prepared to:

1. find rewarding careers as engineering professionals. As computer engineers they will be prepared to design and develop new products, technologies and processes that incorporate one or more of the following elements: analog and digital circuits, signals and systems, computer design, software development, and hardware/software integration.
2. continue their professional education either formally, in graduate school, professional schools, or through industrial training programs; or informally, though activities such as continuing education, attendance in short courses, professional workshops and conferences.
3. exercise and further develop their skills in professional communication through activities such as project briefings, conference presentations, technical reports and manuals, and journal publications.
4. participate in activities for the betterment of society, and carry on the traditions of the University of Dayton by maintaining high ethical standards in their professional activities, and by serving their country and community through service, leadership and mentoring.

Electrical engineering is an exciting field within the engineering discipline. It offers the opportunity to enter some of the most rewarding and challenging careers available. The explosion of capabilities in the computer, communication, automotive, medical, entertainment and aerospace industries, as well as homeland security has resulted from advances in the electronics field. Electrical engineers are equipped to enter this dynamic arena as well as equally challenging and rewarding careers in the fields of electro-optics, communication, radar, signal and image processing, biomedicine,
controls, robotics and instrumentation, and many more. Electrical engineers work in all phases of technological programs. They are involved from the conception of the basic ideas through design, fabrication, verification, manufacturing, and marketing of the final product.

Computer engineering represents perhaps the most sought-after professional component of an engineering team which develops the technological possibilities inherent in the design, construction, and operation of computer systems. The computer engineer performs a wide variety of tasks involving hardware, software, peripherals, computer-controlled systems, and hardware-software integration, as well as computer applications in the multitude of areas listed in the previous paragraph.

Both electrical engineering and computer engineering are broad-based engineering disciplines that provide for a wide range of career choices within the engineering field as well as providing an excellent basis for careers in such diverse areas as business, law, and medicine.

The electrical engineering curriculum is designed to provide an understanding of basic electrical engineering principles with emphasis on the development of problem solving skills. The computer engineering curriculum draws from software courses taken in computer science and hardware related courses taken from Electrical and Computer Engineering, culminating in the integration of hardware and software in computer design. An extensive laboratory experience is integrated with the classroom work to assure that the student develops a working knowledge of the fundamentals. Upper level courses integrate the knowledge base with current technology and computational tools resulting in a graduate capable of making a contribution to the engineering profession by either entering the work force or pursuing a graduate education.

The computer engineering curriculum is designed to provide an understanding of basic computer engineering principles with emphasis on the development of problem solving skills. The software aspects of computer engineering are introduced in the first year, while hardware and hardware-software integration topics are emphasized starting in the sophomore year. An extensive hands-on laboratory experience is integrated with the classroom work to assure that the student develops a working knowledge of the fundamentals.

Faculty
Malcolm Daniels, Chairperson
Distinguished Service Professor: Schmidt
Professors Emeriti: Evers, Kee, Rogers, Scarpino, Thiele, Williamson
Professors: Banerjee, Chatterjee, Duncan, Hardie, Moon, Pasala, Weber
Associate Professors: Loomis, Ordonez, Penno, Smari, Subramanyam
Adjunct Professors: Barrera, El-Ali, Gauder, Mayhan, Rappenger

Majors/Minors (Collapse All)

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<tr>
<th>Major/Minor Name</th>
<th>Sem. Hrs.</th>
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<td>Bachelor of Electrical Engineering (ELE)</td>
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<td>CHM 123 GENERAL CHEMISTRY</td>
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<td>CPS 132 COMPUTER PROGRAMMING FOR ENGINEERING AND SCIENCE</td>
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<td>ECE 101 INTRODUCTION TO ELECTRICAL AND COMPUTER ENGINEERING</td>
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<td>EGR 100 ENRICHMENT WORKSHOP</td>
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<td>EGR 101 INTRODUCTION TO ENGINEERING DESIGN</td>
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<td>MTH 169 ANALYTIC GEOMETRY AND CALCULUS II</td>
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<td>PHL 103 INTRODUCTION TO PHILOSOPHY</td>
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<td>PHY 206 GENERAL PHYSICS I - MECHANICS</td>
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<td>PHY 210L GENERAL PHYSICS LABORATORY I</td>
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<td>REL 103 INTRODUCTION TO RELIGION</td>
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### Sophomore-Year

#### First-Term
- **CMM 110**  GROUP DECISION MAKING  1
- **ECE 201-201L**  CIRCUIT ANALYSIS (ECE 201)  5
  - CIRCUIT ANALYSIS LABORATORY (ECE 201L)  
- **EGM 213**  STATICS AND MECHANICS OF MATERIALS  4
- **MTH 218**  ANALYTIC GEOMETRY AND CALCULUS III  4
- General Education elective  3

#### Second-Term
- **CMM 111 or 112**  INFORMATIVE PUBLIC SPEAKING (CMM 111)  1
  - PERSUASIVE PUBLIC SPEAKING (CMM 112)  
- **ECE 202-202L**  SIGNALS AND SYSTEMS (ECE 202)  5
  - SIGNALS AND SYSTEMS LABORATORY (ECE 202L)  
- **ECE 203**  INTRODUCTION TO MATLAB PROGRAMMING  1
- **ECE 215-215L**  INTRODUCTION TO DIGITAL SYSTEMS (ECE 215)  4
  - DIGITAL SYSTEMS LABORATORY (ECE 215L)  
- **MTH 219**  APPLIED DIFFERENTIAL EQUATIONS  3
- **PHY 232**  THE PHYSICS OF WAVES  3

### Junior-Year

#### First-Term
- **CMM 113**  INTERVIEWING  1
- **ECE 301-301L**  ELECTRONIC DEVICES (ECE 301)  4
  - ELECTRONIC DEVICES LABORATORY (ECE 301L)  
- **ECE 332**  ELECTROMAGNETICS  3
- **ECE 334**  DISCRETE SIGNALS AND SYSTEMS  3
- **ECE 340**  ENGINEERING PROBABILITY AND RANDOM PROCESSES  3
- **PHL 316**  ENGINEERING ETHICS  3

#### Second-Term
- **ECE 302-302L**  ELECTRONIC SYSTEMS (ECE 302)  4
  - ELECTRONIC SYSTEMS LABORATORY (ECE 302L)  
- **ECE 314**  FUNDAMENTALS OF COMPUTER ARCHITECTURE  3
- **ECE 333**  APPLIED ELECTROMAGNETICS  3
- **ISE 430**  COST AND ECONOMIC ANALYSIS FOR ENGINEERS  1 - 3
- **MTH 343**  MATHEMATICS FOR ELECTRICAL AND COMPUTER ENGINEERS  3
- General Education elective  3

### Senior-Year

#### First-Term
- **ECE 401-401L**  COMMUNICATION SYSTEMS (ECE 401)  4
  - COMMUNICATION SYSTEMS LABORATORY (ECE 401L)  
- **ECE 415**  CONTROL SYSTEMS  3
- **ECE 431L**  MULTIDISCIPLINARY ENGINEERING DESIGN I  1
- General Education electives  3
- Technical elective  6

#### Second-Term
- **ECE 432L**  MULTIDISCIPLINARY ENGINEERING DESIGN II  4
- Engineering Thermodynamics elective  3
**General Education electives**

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**Technical elective**

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1Select from list approved by the Department of Electrical and Computer Engineering.

Bachelor of Science in Computer Engineering (CPE)

**First-Year**

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<td>ECE 101</td>
<td>INTRODUCTION TO ELECTRICAL AND COMPUTER ENGINEERING</td>
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<td>EGR 100</td>
<td>ENRICHMENT WORKSHOP</td>
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<td>EGR 101</td>
<td>ENRICHMENT WORKSHOP</td>
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<td>ENG 101-102 or 114 or 198</td>
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<td>HST 103 or 198</td>
<td>THE WEST AND THE WORLD</td>
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<td>MTH 168</td>
<td>ANALYTIC GEOMETRY AND CALCULUS I</td>
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<td>MTH 169</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
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<td>PHL 103</td>
<td>INTRODUCTION TO PHILOSOPHY</td>
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<td>REL 103</td>
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**Sophomore-Year**

**First-Term**

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<td>ALGORITHMS AND PROGRAMMING II</td>
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<td>ECE 201-201L</td>
<td>CIRCUIT ANALYSIS (ECE 201)</td>
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<td>MTH 218</td>
<td>ANALYTIC GEOMETRY AND CALCULUS III</td>
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<td>GENERAL PHYSICS I - MECHANICS</td>
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<td>PHY 210L</td>
<td>GENERAL PHYSICS LABORATORY I</td>
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**Second-Term**

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<td>CMM 110</td>
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<td>ECE 202-202L</td>
<td>SIGNALS AND SYSTEMS (ECE 202)</td>
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<td>ECE 203</td>
<td>INTRODUCTION TO MATLAB PROGRAMMING</td>
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<td>ECE 215-215L</td>
<td>INTRODUCTION TO DIGITAL SYSTEMS (ECE 215)</td>
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<td>APPLIED DIFFERENTIAL EQUATIONS</td>
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<td>PHY 232</td>
<td>THE PHYSICS OF WAVES</td>
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**Junior-Year**

**First-Term**

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<td>INFORMATIVE PUBLIC SPEAKING (CMM 111)</td>
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<td>CPS 350</td>
<td>DATA STRUCTURES AND ALGORITHMS</td>
<td>3</td>
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<td>ECE 301-301L</td>
<td>ELECTRONIC DEVICES (ECE 301)</td>
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<td>ECE 334</td>
<td>DISCRETE SIGNALS AND SYSTEMS</td>
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<td>ECE 340</td>
<td>ENGINEERING PROBABILITY AND RANDOM PROCESSES</td>
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<tr>
<td>PHL 319</td>
<td>INFORMATION ETHICS</td>
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**Second-Term**

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<tr>
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Senior-Year

First-Term

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<tr>
<td>CPS 418</td>
<td>SOFTWARE ENGINEERING</td>
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<td>CPS 444</td>
<td>SYSTEMS PROGRAMMING I</td>
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<td>ECE 431L</td>
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<td>ECE 444</td>
<td>ADVANCED DIGITAL DESIGN</td>
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<td>EGM 213</td>
<td>STATICS AND MECHANICS OF MATERIALS</td>
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Second-Term

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<td>MULTIDISCIPLINARY ENGINEERING DESIGN II</td>
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<td>ECE 449</td>
<td>COMPUTER SYSTEMS ENGINEERING</td>
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1Select from list approved by the Department of Electrical and Computer Engineering.

Courses (Collapse All Courses)

<table>
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<td>INTRODUCTION TO ELECTRICAL AND COMPUTER ENGINEERING</td>
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Introduction to electrical and computer engineering faculty, facilities, and curriculum. Career opportunities in electrical and computer engineering and areas of specialization are discussed.

<table>
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<th>Sem. Hrs.</th>
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<tr>
<td>ECE 198</td>
<td>MULTIDISCIPLINARY RESEARCH AND INNOVATION LABORATORY</td>
<td>1 - 6</td>
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</tbody>
</table>

Students participate in 1.) selection and design, 2.) investigation and data collection, 3.) analysis, and 4.) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

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<th>Code</th>
<th>Title</th>
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<tr>
<td>ECE 201</td>
<td>CIRCUIT ANALYSIS</td>
<td>4</td>
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</tbody>
</table>

Principles of linear circuit analysis and problem solving techniques associated with circuits containing both passive and active components. Analysis of both transient and steady-state behavior of circuits with D.C. and sinusoidal excitation.

Prerequisite(s): MTH 138 or 168.

Corequisite(s): ECE 201L

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<th>Code</th>
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<tr>
<td>ECE 201L</td>
<td>CIRCUIT ANALYSIS LABORATORY</td>
<td>1</td>
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</table>

Laboratory course stressing experimental techniques, laboratory reporting, safety, and instrumentation. Experimental investigation of basic steady-state and transient circuits.

Corequisite(s): ECE 201

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<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
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<tr>
<td>ECE 202</td>
<td>SIGNALS AND SYSTEMS</td>
<td>4</td>
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</tbody>
</table>
Mathematical framework associated with the analysis of linear systems including signal representation by orthogonal functions, convolution, Fourier and Laplace analysis, and frequency response of circuits and systems. 

**Prerequisite(s):** ECE 201; MTH 218.  
**Corequisite(s):** ECE 202L.

**ECE 202L  SIGNALS AND SYSTEMS LABORATORY**

Laboratory investigation of signals and systems including signal decomposition, system impulse response, convolution, frequency analysis of systems, and filter design and realization.  

**Prerequisite(s):** ECE 201L.  
**Corequisite(s):** ECE 202.

**ECE 203  INTRODUCTION TO MATLAB PROGRAMMING**

MATLAB system and development environment, vector and matrix operations using MATLAB, linear algebra and calculus using MATLAB, MATLAB graphics, flow control, symbolic math toolbox.  

**Prerequisite(s):** (CPS 132 or 150) or equivalent.

**ECE 211  PROBABILITY AND STATISTICS**

Introduction to the topics of random variables, probability density functions, cumulative distribution functions, mean values and moments.  

**Prerequisite(s):** MTH 168.

**ECE 215  INTRODUCTION TO DIGITAL SYSTEMS**

Introduction to binary systems, logic circuits, Boolean algebra, simplification methods, combinational circuits and networks, programmable logic devices, flip flops, registers, counters, memory elements, and analysis and design of sequential circuits.  

**Prerequisite(s):** ECE 201.  
**Corequisite(s):** ECE 215L.

**ECE 215L  DIGITAL SYSTEMS LABORATORY**

Laboratory investigation of digital logic circuits and systems covered in ECE 215. Logic gate characteristics; combinational logic design and analysis; latches and flip-flops; synchronous and asynchronous sequential logic; simple digital systems. Experiments include design and analysis of digital systems using breadboarding, FPGA boards, modeling and simulation tools, hardware description languages, and logic synthesis tools.  

**Prerequisite(s):** ECE 201, 201L.  
**Corequisite(s):** ECE 215.

**ECE 298  MULTIDISCIPLINARY RESEARCH AND INNOVATION LABORATORY**

Students participate in 1.) selection and design, 2.) investigation and data collection, 3.) analysis, and 4.) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

**ECE 301  ELECTRONIC DEVICES**

Study of the terminal characteristics of electronic devices and basic single stage amplifier configurations using bipolar junction transistors and field-effect transistors. Analysis of the devices includes a qualitative physical description, volt-ampere curves, and the development of small- and large-signal equivalent circuit models.  

**Prerequisite(s):** ECE 201.  
**Corequisite(s):** ECE 301L.

**ECE 301L  ELECTRONIC DEVICES LABORATORY**

Laboratory investigation of electronic devices: diodes, bipolar junction transistors, field-effect transistors and operational amplifiers.  

**Corequisite(s):** ECE 301.

**ECE 302  ELECTRONIC SYSTEMS**

...
Study of cascaded amplifiers, feedback amplifiers, linear integrated circuits, and oscillators including steady state analysis and analysis of frequency response.  
**Prerequisite(s):** ECE 202, 301.  
**Corequisite(s):** ECE 302L.

**ECE 302L** ELECTRONIC SYSTEMS LABORATORY  
Design, construction and verification of multistage feedback amplifiers, passive and active filters, and oscillators.  
**Prerequisite(s):** ECE 301L.  
**Corequisite(s):** ECE 302.

**ECE 314** FUNDAMENTALS OF COMPUTER ARCHITECTURE  
Study of computer systems organization, representation of data and instructions, instruction set architecture, processor and control units, memory devices and hierarchy, I/O devices and interfacing peripherals, high- to low-level language mapping, system simulation and implementation, applications and practical problems.  
**Prerequisite(s):** (CPS 132 or 150); ECE 215.

**ECE 323** BASIC ELECTRONIC CIRCUITS  
Analysis and design of passive and active electrical and electronic circuits using time-domain and frequency-domain methods. Includes amplifiers, switches, and other types of electronic circuits. Lectures will be reinforced with practical and computer exercises. For chemical, civil, environmental and mechanical engineering students.  
**Prerequisite(s):** MTH 218; PHY 207.

**ECE 323L** BASIC ELECTRONIC CIRCUITS LABORATORY  
Construction and debugging of electronic circuits. Includes introduction to electronic measurement methods. Covers passive and active elements. This class is intended as a visualization and reinforcement of the material in ECE 323 for non-electrical engineers.  
**Corequisite(s):** ECE 323.

**ECE 332** ELECTROMAGNETICS  
Study of vector calculus, electro- and magneto-statics, Maxwell's equations, and electromagnetic plane waves and their reflection and transmission from discontinuities.  
**Prerequisite(s):** PHY 232.

**ECE 333** APPLIED ELECTROMAGNETICS  
Electromagnetic theory applied to problems in the areas of waveguides, radiation, electro-optics and electromagnetic interference and electromagnetic compatibility.  
**Prerequisite(s):** ECE 332.

**ECE 334** DISCRETE SIGNALS AND SYSTEMS  
Introduction to discrete signals and systems including sampling and reconstruction of continuous signals, digital filters, frequency analysis, the z-transform, and the discrete Fourier transform.  
**Prerequisite(s):** ECE 202.

**ECE 340** ENGINEERING PROBABILITY AND RANDOM PROCESSES  
Axiomatic probability, derived probability relationships, conditional probability, statistical independence, total probability and Bayes' Theorem, counting techniques, common random variables and their distribution functions, transformations of random variables, moments, autocorrelation, power spectral density, cross correlation and covariance, random processes through linear and nonlinear systems, linear regression, and engineering decision strategies.  
**Prerequisite(s):** ECE 202; MTH 218.

**ECE 398** MULTIDISCIPLINARY RESEARCH AND INNOVATION LABORATORY  
1 - 6
Students participate in 1.) selection and design, 2.) investigation and data collection, 3.) analysis, and 4.) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

ECE 401 COMMUNICATION SYSTEMS
Study of amplitude, angle, pulse, and digital communication systems including generation, detection, and analysis of modulated signals and power, bandwidth, and noise considerations.
Prerequisite(s): ECE 302, 340.
Corequisite(s): ECE 401L.

ECE 401L COMMUNICATION SYSTEMS LABORATORY
Design, fabrication, and laboratory investigation of modulators, detectors, filters, and associated communication components and systems.
Prerequisite(s): ECE 302L.
Corequisite(s): ECE 401.

ECE 414 ELECTRO-MECHANICAL DEVICES
Properties and theory of electro-mechanical devices: nonlinear electromagnetic actuators; rotating machine analysis; field and circuit concepts; rotating fields; direct current, synchronous, and induction machines; special-purpose machines; and fractional horsepower machines.
Prerequisite(s): ECE 202, 332.

ECE 415 CONTROL SYSTEMS
Study of mathematical models for control systems and analysis of performance characteristics and stability. Design topics include pole-placement, root locus, and frequency domain techniques.
Prerequisite(s): ECE 202.

ECE 431L MULTIDISCIPLINARY ENGINEERING DESIGN I
Multidisciplinary engineering design projects and problems. Introduction to product development using the Product Realization Process. Concentration on proposals, specifications, conceptualization and decision analysis. Projects result in final design and prototyping in the follow-on course.
Prerequisite(s): ECE 202, 314.

ECE 432L MULTIDISCIPLINARY ENGINEERING DESIGN II
Combination of lecture and laboratory experiences. The focus of the lecture is on project management aspects of engineering design, including communication, collaboration, project tracking methods, cost estimating, overhead, direct labor costs, time value of money, depreciation, and return on investment. The focus of the lab is on a multidisciplinary team design project. Detailed evaluation of the Product Realization Process (PRP), including specifications, innovation, conceptualization, decision analysis, embodiment design, final design and prototyping. Analysis of the design criteria for safety, ergonomic, environmental, financial, ethical, and socio-political impact. Periodic oral and status reports. Culminates in a comprehensive written report and oral presentation.
Prerequisite(s): CPE majors: ECE 340, 431L, 444; ELE majors: ECE 340, 431L, (ECE 401 or 415).

ECE 440 PHYSICAL ELECTRONICS
Introduction to wave mechanics, electron ballistics, theory of metals and semiconductors, electron emission, space charge flow, and modern electron devices.
Prerequisite(s): MTH 219; PHY 232.

ECE 441 INTEGRATED CIRCUIT ELECTRONICS
Integrated circuit design, construction and verification including the study of biasing, multistage differential and analog power amplification, and computer assisted design tools for "on-chip" design and layout.
Prerequisite(s): ECE 302.
ECE 442  ENGINEERING ELECTROMAGNETICS
Processing Maxwell's equations and applying the predictions to the analysis and design of engineering systems that make use of electromagnetic energy from ELF through optical frequencies. Topics include propagation, radiation, interactions with matter, guided waves, and antenna fundamentals.
Prerequisite(s): ECE 333.

ECE 443  INTRODUCTION TO ELECTRO-OPTICS
Introductory overview of electro-optics starting with Maxwell's equations and leading to lasers, holography, and other timely applications.
Prerequisite(s): ECE 332.

ECE 444  ADVANCED DIGITAL DESIGN
Systems approach to digital design including: structured top-down development process using simple and complex logic modules from various logic families; practical aspects of the design, construction, and verification of digital subsystems; application of microcomputer and/or controller as a flexible logic device; real-time embedded systems design; and the use of HDL tools and simulation.
Prerequisite(s): ECE 314.

ECE 445  SIGNAL PROCESSING
Study of signal conditioning, digital signal processing, and data processing. Topics include transducers, high gain amplifier design, digital filtering, and spectrum estimation. Specialized application determined by instructor.
Prerequisite(s): ECE 334.

ECE 446  MICROELECTRONIC SYSTEMS DESIGN
Basic integrated circuit design concepts, system layout, application of design methodology, the fabrication process, manufacturing limitations of the design process, and CAD/CAE utilization to realize the design process.
Prerequisite(s): ECE 302.

ECE 447  DIGITAL CONTROL SYSTEMS
Analysis and synthesis of feedback control systems including digital compensators. Topics include performance and stability analysis, regulator and servomechanism design using time and frequency domain methods, and digital implementation case studies.
Prerequisite(s): ECE 415; ECE 334 or equivalent.

ECE 448  FIBER OPTIC COMMUNICATIONS
General light guidance principles; ray optics; dispersion; single mode, multimode, and graded index fibers; basic laser and LED source principles; photodetectors; error probability in digital optical systems; rise time analysis; loss budget analysis; local area networks and long haul communication links.
Prerequisite(s): ECE 333.
Corequisite(s): ECE 401.

ECE 449  COMPUTER SYSTEMS ENGINEERING
An introduction to advanced computer architecture and computer systems design. Topics include: exploration of principle architecture features of modern computers, pipelining, memory hierarchy, I/O devices, interconnection networks, introduction to parallel and multiprocessor systems, and the use of hardware description languages (HDLs) in system implementation.
Prerequisite(s): ECE 444; (CPS 346 or permission of instructor).

ECE 450L  PROJECTS LABORATORY
Project-oriented laboratory applying engineering skills in the design, development, and demonstration of electrical and electronic systems.
Prerequisite(s): Permission of project advisor.

ECE 498  MULTIDISCIPLINARY RESEARCH AND INNOVATION LABORATORY
Students participate in 1.) selection and design, 2.) investigation and data collection, 3.) analysis, and 4.) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and
analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

ECE 499  SPECIAL PROBLEMS IN ELECTRICAL AND COMPUTER ENGINEERING  1 - 6

Particular assignments to be arranged and approved by the department chairperson.
School of Engineering

Engineering Technology (Collapse Description)

The School of Engineering also offers a Bachelor of Science in Engineering Technology. The programs in which the degree is offered are computer engineering technology, electronic engineering technology, industrial engineering technology, manufacturing engineering technology, and mechanical engineering technology. The engineering technologist is usually involved in the design, performance evaluation, service and sales of products, equipment, and manufacturing systems or the management of these activities. The management of process operations and plant facilities are also important career paths.

The engineering technology programs provide: (1) specialized technical courses that emphasize rational thinking and the application of engineering and scientific principles to the practical solution of technological problems; (2) courses in applied mathematics and science sufficient to support the technical courses and to prepare the student for future growth; and (3) education to prepare students to communicate intelligently and to take places in society as responsible, humane, complete professionals.

The University of Dayton engineering technology programs prepare graduates who:

- are competent and productive in the practice of both the technical and communication aspects of their profession;
- demonstrate ethical and professional standards of conduct;
- exhibit leadership qualities as appropriate for the practice of their profession;
- are involved in service activities that benefit their profession and their community; and
- are engaged in continuing professional development.

Faculty

Scott Segalewitz, Chairperson of the Department of Engineering Technology

Sub-Categories / Concentrations / Focus Areas

- Electronic and Computer Engineering Technology
- Manufacturing Engineering Technology
- Industrial Engineering Technology
- Mechanical Engineering Technology

Courses (Collapse All Courses)

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<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>ECT 110</td>
<td>ELECTRICAL CIRCUITS I</td>
<td>3</td>
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<tr>
<td></td>
<td>Practical concepts of DC and AC circuits: current, voltage, resistance, power, series and parallel circuits, capacitance, magnetic circuits, and inductance.</td>
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<tr>
<td>ECT 120</td>
<td>ELECTRICAL CIRCUITS II</td>
<td>3</td>
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<tr>
<td></td>
<td>Practical concepts of DC and AC circuits: reactance, impedance, phase, circuit analysis, power factor, resonance, filters, transformers, and polyphase circuits. Circuit calculations using vectors and complex algebra.</td>
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<tr>
<td></td>
<td>Prerequisite(s): ECT 110.</td>
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<td>ECT 120L</td>
<td>ELECTRICAL CIRCUITS LABORATORY</td>
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<tr>
<td></td>
<td>Experiments in basic DC and AC circuits to accompany ECT 120. Three laboratory hours a week.</td>
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<tr>
<td></td>
<td>Prerequisite(s): ECT 110.</td>
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<tr>
<td>ECT 206</td>
<td>ELECTRON DEVICES I</td>
<td>3</td>
</tr>
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</table>
Fundamentals of semiconductor diodes, transistors (bipolar and field effect), amplifiers, biasing and small signal analysis.

**Prerequisite(s):** ECT 120.

**ECT 206**  ELECTRON DEVICES I LABORATORY
To accompany ECT 206. Three hours of laboratory a week.

**ECT 208**  ELECTRONIC INSTRUMENTATION
Study of modern cathode ray oscilloscopes and other instrumentation including control and transfer of data using a bus system.

**ECT 224**  DIGITAL COMPUTER FUNDAMENTALS
Fundamental theory and techniques of electronic data processing to include binary arithmetic, switching theory (Boolean algebra), and basic circuitry (gates, adders, registers, and memory).

**Prerequisite(s):** ECT 110.

**ECT 224L**  DIGITAL COMPUTER FUNDAMENTALS LABORATORY
To accompany ECT 224. Three hours of laboratory a week.

**ECT 206**  ELECTRON DEVICES II
Fundamentals of integrated circuits, operational amplifiers, transistors, photodetector devices, silicon-controlled rectifiers, and their associated circuits.

**Prerequisite(s):** ECT 206.

**ECT 206L**  ELECTRON DEVICES II LABORATORY
To accompany ECT 206. Three hours of laboratory a week.

**ECT 306**  ELECTRONIC COMMUNICATIONS
Study of communication circuits including amplifiers, oscillators, modulators, demodulators, antennas, waveguides, and microwave devices.

**Prerequisite(s):** ECT 306.

**ECT 306L**  ELECTRONIC COMMUNICATIONS LABORATORY
To accompany ECT 306. Three hours of laboratory a week.

**ECT 328**  MICROPROCESSORS I
Study of microprocessor architecture, hardware, software, applications, and development tools.

**Prerequisite(s):** ECT 224.

**Corequisite(s):** ECT 357.

**ECT 357**  MICROPROCESSORS I LABORATORY
To accompany ECT 357. Emphasis on memory design, I/O design, and software development. Three hours of laboratory a week.

**ECT 357L**  MICROPROCESSORS I LABORATORY
To accompany ECT 357. Emphasis on memory design, I/O design, and software development. Three hours of laboratory a week.

**ECT 358**  MICROPROCESSORS II
Advanced microprocessors study including development tools and software with regards to interfacing equipment in applications.

**Prerequisite(s):** ECT 357, 361.

**Corequisite(s):** ECT 358.

**ECT 358L**  MICROPROCESSORS II LABORATORY
To accompany ECT 358. Emphasis on microcomputer programming. Three hours of laboratory a week.

**ECT 357**  PROGRAMMING STRUCTURES
The study of programming language concepts. Emphasis on the C language and its application to microcomputer hardware and software development.

**Prerequisite(s):** SET 153L.

**ECT 362**  CONCEPTS AND APPLICATIONS OF COMPUTER OPERATING SYSTEMS
3
Introduction to the fundamentals and applications of computer operating systems and the interaction of hardware and software. Operating systems for large-scale, mini-, and microcomputers introduced through case studies. 

**Prerequisite(s):** ECT 357, 361.

ECT 400 \( ^{1-4} \) SELECTED TOPICS

Investigation and discussion of current technical topics in electronic and computer engineering technology. May be taken more than once. 

**Prerequisite(s):** Permission of department chairperson.

ECT 408 \( ^2 \) DATA ACQUISITION AND MEASUREMENTS

Measurement and evaluation of the characteristics of engineering materials, structural mechanics, electromechanical systems, and physical systems. Emphasis on data acquisition, signal conditioning and manipulation, and virtual instrumentation. 

**Prerequisite(s):** ECT 120L; (ECT 361 or MCT 221); ENG 102.

ECT 450 \( ^3 \) MICROELECTRONICS

Study of the principles, design techniques, and fabrication processes utilized in the construction of integrated circuits and circuit boards. Use of electronic computer aided design software to assist in design, layout, simulation, and evaluation of projects. 

**Prerequisite(s):** ECT 206.

ECT 451 \( ^3 \) ADVANCED INSTRUMENTATION

Advanced study of microcomputer controlled sensors and actuators in a variety of applications. 

**Prerequisite(s):** ECT 208.

ECT 452 \( ^3 \) FEEDBACK CONTROLS

Study of principles of control including Nyquist criteria, Bode plots, PID loops, fuzzy logic, and artificial neural networks. Laplace transform analysis is utilized. 

**Prerequisite(s):** ECT 306.

ECT 459 \( ^3 \) MICROPROCESSOR SYSTEMS DESIGN

Study of complete mechatronic designs with an emphasis on development systems, operating system integration, interfacing, and control strategies. 

**Prerequisite(s):** ECT 357, 358.

ECT 460 \( ^3 \) ADVANCED MICROPROCESSOR SYSTEMS

Study of advanced micro-processor families and their applications to systems, including single and multi-processor design. 

**Prerequisite(s):** ECT 357.

ECT 461 \( ^3 \) POWER DISTRIBUTION AND CONTROL

Study of power distribution systems including components, basic operation, characteristics, and application. Emphasis on the generation of electric power, its transmission, and its application to high power systems. 

**Prerequisite(s):** ECT 120.

ECT 462 \( ^3 \) TELECOMMUNICATIONS TECHNOLOGY

Study of communication methods and protocols. Applications to networks, satellite communication, phone systems, fiber optics, modems, and other data transmission. 

**Prerequisite(s):** ECT 357.

ECT 464 \( ^3 \) PROGRAMMABLE LOGIC CONTROLLERS

Study of Programmable Logic Controllers (PLC's) and their applications in manufacturing. Topics include PLC architecture, programming, program documentation, system monitoring, automated manufacturing systems, and operator interfacing techniques. 

**Prerequisite(s):** MFG 431.

ECT 465 \( ^3 \) DIGITAL DATA COMMUNICATIONS
Study of digital communication protocols and methods. A special emphasis is placed on networks.

**Prerequisite(s):** ECT 357 or equivalent.

ECT 466 MICROCOMPUTER ARCHITECTURE

To develop an understanding of the basic hardware architecture of industry standard microcomputers including CPUs, standard busses, memory, mass storage devices, Systems-on-a-Chip and their implementation, I/O devices, and network interfaces. Study of architecture of recent microprocessors.

**Prerequisite(s):** ECT 357 or equivalent.

ECT 490 SENIOR PROJECT

The design, construction and presentation of an original project. The project may be individual or part of an interdisciplinary engineering technology team project. Written and oral reports.

**Prerequisite(s):** CMM 110, (CMM 111 or 112); ECT 408, 464; IET 323; MTH 138; senior status.

IET 230 WORK MEASUREMENT

Fundamentals of work simplification and motion economy using the techniques of time-and-motion study. Setting of labor standards using the techniques of stop watch, pre-determined time, standard data, and work sampling.

**Prerequisite(s):** MTH 137.

**Corequisite(s):** IET 230L; SET 153L.

IET 230L WORK MEASUREMENT LABORATORY

The application of real-world time-and-motion-study techniques such as flow process, man-machine, and gozinta charts. Calculations for time standards, production efficiency, line balance, cost reduction, manpower, and equipment. A written and oral report on a team project. Three hours of laboratory each week.

**Prerequisite(s):** MTH 137.

**Corequisite(s):** IET 230; SET 153L.

IET 308 PRODUCTION MANAGEMENT METHODS

Study of the principles and current practices of optimizing production using Lean Manufacturing concepts. Just-in-time, Kaizen, set-up reduction, pull systems, focused factories, standard operations, total productive maintenance, and defect-free manufacturing.

IET 316 QUANTITATIVE METHODS IN INDUSTRIAL ENGINEERING TECHNOLOGY

Introduction of the mathematical techniques used to support decision making and managerial analysis. Probability theory, decision theory, linear programming, and queuing theory.

**Prerequisite(s):** MTH 207; SET 153L.

IET 317 INDUSTRIAL ECONOMIC ANALYSIS

Comparison of manufacturing or service industry projects and investments based on their economic value. Quantification of costs and benefits; analysis using present worth, annual worth, and rate of return methods. Study of simple and compound interest.

**Prerequisite(s):** MTH 137; SET 153L.

IET 318 STATISTICAL PROCESS CONTROL

Statistics and probability theory applied to produce control charts (x-bar, R, s, p, u, and c) to monitor processes. Interpretation and application of these charts. Problem solving techniques, pareto analysis, and modern quality management techniques.

**Prerequisite(s):** MTH 207; SET 153L.

IET 319 QUALITY IMPROVEMENT METHODS

Study of problem-solving methodologies and techniques. Team development. Students will learn to use Pareto diagrams, force field analysis, cause and effect diagrams, process mapping, and other problem-solving tools. Quality costs, product liability, and ethics are also covered.

**Prerequisite(s):** IET 318; SET 153L.
IET 320 QUALITY ASSURANCE TECHNIQUES
Students will be exposed to a variety of current quality assurance topics that companies use to improve quality, increase productivity, and reduce costs. Topics include: total preventive maintenance, quality function deployment, reliability engineering, design of experiments, and sample size selection. 
Prerequisite(s): IET 318; MTH 207; SET 153L.

IET 321 QUALITY MANAGEMENT
Provides students with an understanding of managing a total quality environment to improve quality, increase productivity and reduce costs. An introduction to Deming, Juran, and others. Total Quality Management implementation strategies, requirements of ISO 9000, QS 9000, and the Malcolm Baldrige award will be covered. 
Prerequisite(s): IET 318; MTH 207; SET 153L.

IET 322 HUMAN FACTORS
Methods of improving the interaction of humans with their physical work environment. Study of human characteristics to determine the best designs for tasks, products, work stations, and other environmental features. Written and oral projects.
Prerequisite(s): Junior or senior status.

IET 323 PROJECT MANAGEMENT
Study of the structure, techniques, and application of project management including project proposals, project plans, decision making, styles of management, and communications. Semester team project with written and oral presentations.
Prerequisite(s): SET 153L.

IET 332 FACILITIES LAYOUT
Design of facilities for the most efficient flow of raw materials, work-in-process, and completed stock through a work place. Facilities layout, material handling, and warehousing in relation to trends toward reduced inventory, smaller lot sizes, and just-in-time.
Prerequisite(s): IET 230, 230L; MCT 110L.

IET 400 SELECTED TOPICS
A self-paced research course. Preparation of a documented written research project on an engineering technology subject. May not be taken more than once. Prerequisites: Junior or senior status; permission of program director.
Prerequisite(s): Junior or senior status; permission of department chairperson.

IET 415 MANAGEMENT OF TECHNICAL ORGANIZATIONS
Study of the structure of industrial and service organizations; study of the duties and responsibilities of a manager or supervisor in a technical organization in developing an effective project or production team. Study of labor administration; labor legislation, current labor practices and international management.

IET 418 COST ESTIMATING
Study of the fundamentals of cost estimating of labor, material, and overhead for products, projects, operations, and systems. The concepts of internal and external cost estimating, types of costs, ethics, budgets, and profit. Semester team and individual projects, written and oral.
Prerequisite(s): MTH 137; SET 153L.

IET 420 INDUSTRIAL AND ENVIRONMENTAL SAFETY
Application of safety techniques and principles to identify and correct unsafe situations and practices. Study of system safety, failure modes and effects analysis, fault tree analysis, preliminary hazard analysis, hazardous materials and practices, OSHA, health and personal protection.

IET 423 THE IET IN SERVICE ORGANIZATIONS
Case studies, articles, guest speakers, and projects to provide insight into how industrial engineering technology skills and training can be applied to service industries including hospitals, banks, and eating and retailing establishments.

**Prerequisite(s):** IET major; junior status.

**IET 425** ELEMENTS OF COST CONTROL
Survey of the methods of breakdown and cost analysis of labor, material, and overhead used in manufacturing and service organizations. Basic financial and cost accounting including balance sheets, income statements, change of financial condition, ratio analysis, and Activity-Based Costing.

**Prerequisite(s):** MTH 137; SET 153L.

**IET 490** SENIOR PROJECT
Applications of IET principles to a real world project using student teams for analysis and productivity improvement. Students will manage a project, applying planning, scheduling, monitoring, and control techniques. Oral and written project proposals, status updates, and final reports presented by teams of students to the management of the sponsoring organizations.

**Prerequisite(s):** CMM 110, (CMM 111 or 112); IET 308, 317, 323, 332; MTH 138; senior status.

**MCT 110L** TECHNICAL DRAWING AND CAD
Technical sketching and shape description, orthographic projection theory, multi-view drawings, necessary views, sectional views, working and shop drawings, dimensioning practices, tolerancing, thread and fastener representation and nomenclature, assembly and detail drawings. Six hours of laboratory a week using instruments and commercial computer-aided design (CAD) software.

**MCT 111L** INTRODUCTION TO DESIGN
Advanced topics of Computer Aided Design using three-dimensional, parametric, solid modeling software. Laboratory assignments involving the CAD software are completed through a series of individual and team design projects. Introduction to design requirements, conceptualization, and design decisions. Computer drafting topics such as ANSI Y 14.5M-1994 geometric dimensioning and tolerancing standards, weld symbols, machining and surface finish symbols. Blueprint reading.

**Prerequisite(s):** MCT 110L.

**MCT 220** STATICS AND DYNAMICS
Study of forces on bodies at rest and in motion using Newton's three laws of motion. Vectors, force systems, components, reactions, resultants, free body diagrams, equilibrium, centroids, moment of inertia, kinetics, and kinematics.

**Prerequisite(s):** SET 153L.

**Corequisite(s):** MTH 137.

**MCT 221** STRENGTH OF MATERIALS
Analysis and design of load-carrying members, considering stress, strain, and deflection. Study of direct tension, compression, and shear; torsion; shear and moment diagrams; bending; combined stress; analysis of columns; pressure vessels.

**Prerequisite(s):** MCT 220; MFG 204, 204L; MTH 137; SET 153L.

**MCT 231** FLUID MECHANICS
Fluid properties, fluid statics including manometry, submerged surfaces, buoyancy and stability of floating bodies. The principles of fluid flow including Bernoulli's and energy equations, energy losses, and pump power. Analysis and design of pipe line systems and open channels; pump selection.

**Prerequisite(s):** MTH 137; SET 153L.

**MCT 313** INDUSTRIAL MECHANISMS
Design and analysis of linkages and cams. Graphical solutions to kinematics problems including the concepts of instantaneous motion and relative motion. Development and analysis of motion diagrams. Study of geometric features of gears and gear transmission systems.
MCT 317 MACHINE DYNAMICS
Principles of applied engineering mechanics as they relate to machines; static force analysis in both 2 and 3 dimensional systems, kinetics of machine components by the methods of force-mass-acceleration, work-energy, and impulse-momentum; machine balancing; introduction to mechanical vibrations. **Prerequisite(s):** MCT 110L, 220; MTH 137; SET 153L.

MCT 330 DESIGN OF MACHINE ELEMENTS
Analytical design techniques used to evaluate machine elements; stress analysis, working stress, failure theories, fatigue failure; design methods for spur gears, shafts, keys and couplings, roller and journal bearings, and springs. Original design project. **Prerequisite(s):** MCT 313; MTH 250.

MCT 333L MECHANICAL MEASUREMENTS
Laboratory evaluations of metal fatigue, stress, strain, noise, vibration, buckling, and nondestructive examination. Utilization of power supplies, transducers, conditioners, amplifiers, recorders; computer data acquisition. Log books and written final reports.

MCT 336 FLUID POWER
Study of hydraulic and pneumatic fluid power components and systems used in industrial, mobile, and aerospace applications; standard symbols in circuit design; circuit analysis; specification for pumps, valves, cylinders, and circuits; hydraulic fluids; filtration; electric motors; system efficiencies; proportional control and electrohydraulic servo control systems; seals; fluid conductors; pneumatic components and systems. Library research project. **Prerequisite(s):** MCT 221. **Corequisite(s):** MCT 336L.

MCT 336L FLUID POWER LABORATORY
To accompany MCT 336. Evaluation of fluid power components: pressure, flow, RPM, sound level, current, voltage, power, torque, and time. Graphical design, computational analysis, assembly, and testing of typical circuits and systems. Testing of hydraulic fluids for viscosity, pour point, flash and fire point, specific gravity. Three hours of laboratory a week.

MCT 342 THERMODYNAMICS
Energy analysis of engineering systems using the concepts and laws of thermodynamics. The principle of the mechanical equivalent of heat, behavior of pure substances, use of thermodynamic property tables, and study of gas mixtures. Application of the Carnot cycle to both heat engines and reversed heat engines. **Prerequisite(s):** MCT 231; MTH 138; SET 153L.

MCT 400 SELECTED MECHANICAL TOPICS
Investigations and discussion of current technical topics in mechanical engineering technology. Research report. May be taken more than once. **Prerequisite(s):** Permission of department chairperson.

MCT 423 PRODUCT DEVELOPMENT
Synthesis of mechanical devices and systems. Emphasis on the integration of various machine elements into a single unit. Activities include design, scheduling, budgeting, purchasing, fabrication, assembly and performance testing of an original team project. **Prerequisite(s):** MCT 330.

MCT 430 DESIGN OF FLUID POWER SYSTEMS
Energy efficiency; pressure drop determinations, variable volume pressure-compensated pumps, accumulators, proportional and electrohydraulic valves, cylinder design, hydraulic motor selection; circuit design, open and closed loop systems, power unit design; sizing of electric motors; use of industrial data and National Fluid Power Assn.-JIC design standards. Individual design project.
Prerequisite(s): MCT 336.

MCT 432 HEAT POWER
Applications of the principles of thermodynamic cycles. Analysis of energy transfer systems such as internal combustion and gas turbine engines. Power generation through steam cycles including reheat and regenerative cycles. Reversed heat engine cycles and vapor compression cycles used in heating and cooling.
Prerequisite(s): MCT 342; SET 153L.

MGT 432 HEAT POWER
Applications of the principles of thermodynamic cycles. Analysis of energy transfer systems such as internal combustion and gas turbine engines.
Prerequisite(s): MCT 336.

MGT 438 HEAT TRANSFER
The principles of conduction, convection, and thermal radiation energy transfer. Conduction through series and parallel walls, pipes, and containers. Forced and free convection through films, thermal radiation of energy between surfaces, and the overall transfer of heat.
Prerequisite(s): MCT 231; SET 153L.

MCT 440 APPLIED VIBRATIONS
Free and forced vibration of single degree of freedom systems with and without damping. Industrial applications including reciprocating and rotating machinery, balancing, isolation, and noise reduction. Demonstrations of vibration sensors and instrumentation.
Prerequisite(s): MCT 317; SET 153L.

MCT 445 EXPERIMENTAL MECHANICS
The selection, application, and use of strain gages and strain gage rosettes. Transformation of stress and strain. Advanced mechanics of materials topics with empirical verification of theoretical predictions.
Prerequisite(s): MCT 221.

MCT 445L EXPERIMENTAL MECHANICS LABORATORY
Installation of strain gauge rosettes. Experiments to determine the state of strain and stress in structures using strain gauges, photoelasticity, and brittle coatings. Vibration measurement using strain gauges, accelerometers, and motion transducers. Written and oral reports.

MCT 446 APPLIED FINITE ELEMENT MODELING
Introduction to the fundamentals of structural finite element modeling. Geometry creation, element types, material specification, problem solution and results postprocessing. A focus is placed on modeling techniques using commercially available software.
Prerequisite(s): MCT 221; SET 153L.

MCT 490 MECHANICAL ENGINEERING TECHNOLOGY SENIOR PROJECT
Bringing together analytical and graphical techniques from previous courses to accomplish the design of a complete mechanism, machine, or mechanical system. Conceptual, preliminary, and final design. Prototyping and evaluation of an original team project. Written and oral reports.
Prerequisite(s): CMM 110, (CMM 111 or 112); IET 323; MCT 317, 330; MTH 138; senior status.

MFG 108L MANUFACTURING PROCESSES LABORATORY
Application of metal-cutting theory using single- and multiple-point cutting tools, basic metal removal process of toolroom and production machines. Experience on conventional milling machines, shapers, lathes, surface grinders, and drill presses. Three hours of laboratory a week.

MFG 204 MATERIALS AND PROCESSES
Chemical and physical properties of metals, ceramics, and polymers; casting processes; powdered metallurgy; metal forming; plastics processes. Oral and written presentation of a team case study.
Prerequisite(s): SET 153L.
Corequisite(s): MFG 204L.

MFG 204L MATERIALS AND PROCESSES LABORATORY
Testing of materials for tensile strength, impact and hardness properties, cooling curves and equilibrium diagram development, heat treating and hardenability curve determination, cold forming, plastics materials processing, micro polishing and metallography; visits to local industries. Three hours of laboratory a week.

**Prerequisite(s):** SET 153L.

**Corequisite(s):** MFG 204L.

**MFG 206L DIMENSIONAL METROLOGY**

Theory and practice of precision measurement including the surface plate, angle and sine plates; surface texture and roundness; optical microscope and profile projector; mechanical and electronic gages; co-ordinate measuring machine; length standards and height gages; fixed and functional gages; sources of measurement error; introduction to Geometric Dimensioning and Tolerancing. Three hours of laboratory a week.

**Prerequisite(s):** MCT 110L; MTH 137.

**MFG 208L GEOMETRIC DIMENSIONING AND TOLERANCING**

Study of the use of ANSI Y14.5M-1994, the engineering standard for geometric dimensioning and tolerancing. Includes the proper use of GD&T symbols, reading and interpretation of engineering drawings, techniques for determining part adherence to design requirements and workmanship standards. Three hours of laboratory a week.

**Prerequisite(s):** MCT 110L.

**MFG 240 MANUFACTURING DESIGN**

Manufacturing planning; advanced Geometric Dimensioning and Tolerancing using ANSI 14.5m-1994; paper gaging; process planning; advanced cutting tools; workholders; power presses-blanking, forming, draw dies, fine blanking; group technology, gage, jig and fixture design.

**Prerequisite(s):** MCT 110L; MFG 108L, 204, 206L.

**MFG 400 SELECTED MANUFACTURING TOPICS**

Investigation and discussion of current topics in manufacturing engineering technology. May be taken more than once.

**Prerequisite(s):** Permission of department chairperson.

**MFG 424 ROBOTICS**

Study of robotics including history, robot geometry, cost justification, end-effector (types, use, and design), sensors, and programming. Application of robots in industries. Robot programming and operation projects and end-effector design projects.

**Prerequisite(s):** MCT 220, 313; SET 153L.

**MFG 426 AUTOMATED MANUFACTURING SYSTEMS AND CIM**

CIM systems and interrelationships; group technology, computer-aided process planning, expert systems, local area networks, automated flow lines, data collection, and material handling. Team project to plan, design, and make an oral presentation of a proposal for a complete manufacturing cell.

**Prerequisite(s):** ECT 110; SET 153L.

**MFG 431 CONTROLS FOR INDUSTRIAL AUTOMATION**

Topics include: fundamentals of digital logic, pneumatic power, electromechanical sensors and actuators, pneumatic and electrical control circuit analysis and design, industry safety and design standards, concepts of mechatronics, programmable logic controllers, and networking communications. Includes lab experiences.

**Prerequisite(s):** ECT 120; SET 153L.

**MFG 432 MATERIALS AND PROCESSES-PLASTICS AND COMPOSITES**

Introduction to the more common plastics and composite engineering materials and their properties. Study of processes including extrusion, injection molding, blow molding, compression and transfer molding, and forming. Topics on part and tooling design.

**Prerequisite(s):** CHM 123; MFG 204.

**MFG 434 COMPUTER NUMERICAL CONTROL**
CNC programming of turning center and machining center; application of CAM software to design CNC programs, edit programs, and display tool paths. Parametric part programming concepts to produce complex surfaces. Machine set-up and operation. Design, programming, and production of products in extensive CNC lab facility. **Prerequisite(s):** MCT 110L; MFG 108L; MTH 138; SET 153L.

**MFG 435 ADVANCED NUMERICAL CONTROL**
Instruction in the programming of complex, multi-axis CNC machines. Extended parametric programming. Programming language techniques. **Prerequisite(s):** MFG 434.

**MFG 490 SENIOR PROJECT**
Study and research in a specific area that integrates major elements from previous design and manufacturing process courses, culminating in individual and/or group projects, technical reports, and presentations. **Prerequisite(s):** MFG 434.

**SET 100 ENGINEERING TECHNOLOGY FIRST YEAR SEMINAR**
A seminar for all engineering technology majors. Introduction to the University of Dayton, the School of Engineering, the Department of Engineering Technology, engineering technology programs and careers. Emphasizes professional ethics, critical thinking and communications, and team dynamics. Academic policies, academic planning, registration procedures, counseling and career placement services.

**SET 101 ENRICHMENT WORKSHOP**
A workshop structured to provide collaborative learning for first-year Engineering Technology students. Work will focus on math, chemistry and other first year courses. Required of all first-year engineering technology students both semesters.

**SET 153L TECHNICAL COMPUTATION LABORATORY**
Introduction to applications and use of computers for engineers with concentration on spreadsheets, electronic communications, and object oriented programming using Visual Basic.

**SET 198 RESEARCH AND INNOVATION LABORATORY**
Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered. **Prerequisite(s):** Permission of department chairperson.

**SET 298 RESEARCH AND INNOVATION LABORATORY**
Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered. **Prerequisite(s):** Permission of department chairperson.

**SET 300 ENGINEERING TECHNOLOGY TRANSFER SEMINAR**
A seminar for full-time engineering technology majors who transferred from another academic institution. Introduction to the University of Dayton, the School of Engineering, the Department of Engineering Technology, engineering technology programs, and careers. Emphasizes professional ethics, critical thinking and communication, and team dynamics. Academic policies, academic planning, registration procedures, counseling, and career placement services.

**SET 398 RESEARCH AND INNOVATION LABORATORY**
1-6
Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

**Prerequisite(s):** Permission of department chairperson.

SET 400  SPECIAL TOPICS IN ENGINEERING TECHNOLOGY  1 - 4
Investigation and discussion of current topics in engineering technology. May be taken more than once.

**Prerequisite(s):** Permission of department chairperson.

SET 498  RESEARCH AND INNOVATION LABORATORY  1 - 6
Students participate in 1) selection and design, 2) investigation and data collection, 3) analysis and 4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

**Prerequisite(s):** Permission of department chairperson.

SET 499  SEMINAR  1
Career planning for engineering technology majors. The job search process, résumé preparation, the job interview, professional development. Required of all engineering technology majors in the junior or senior year.
College of Arts and Sciences

(ENG) English  (Collapse Description)

The University requirement in English composition is satisfied by the completion of ENG 101-102, ENG 114, or ENG 198. Completing this requirement is a prerequisite for 200- and 300-level English courses. For placement information, see Reading and Writing General Competencies requirements in Section V. For additional details, consult the department chairperson or the director of writing programs.

Students majoring in English must complete at least thirty-six semester hours of English courses, including first-year composition, and at least twenty-four semester hours at the 300-400 level.

A minor in English consists of twelve semester hours. Students in B.A. programs can acquire teacher licensure in Integrated Language Arts through the E11A program. For details, consult the department chairperson.

The English department awards a writing certificate to students who achieve a 3.0 grade-point average in eighteen semester hours of approved writing and writing-related courses, including at least twelve semester hours of upper-divisional (300-400) courses, and who pass a final examination including an impromptu essay. For details, consult the department chairperson.

Faculty

Brian P. Conniff, Chairperson
Margaret M. Strain, Director of Graduate Studies
Elizabeth A. Wardle, Director of Writing Programs
Anne S. Pici, Program Coordinator

Professors Emeriti: August, Cochran, Durham, Henninger, Labadie, H. Martin, Means, Murphy, Palumbo, Patrouch, Stockum

Professors: Conniff, J. Farrelly, Kimbrough, K. Marre, J. Pici, Wilhoit

Associate Professors: Boehnlein, Hughes, L. Marre, Strain, Wendorf, Youngkin

Assistant Professors: Bardine, Carrillo, Krummel, McCombe, Morgan, Potter, Ramnarayan, Wardle

Poet-in-Residence: H. Martin

Lecturers: DeAloia, Fulton, Krug, E. Martin, Sexton, Walker

Majors/Minors  (Collapse All)

Major/Minor Name

Bachelor of Arts with a major in English (ENG)

<table>
<thead>
<tr>
<th>English</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG (101-102 or 114 or 198), 300, 301, 302, 305, 362, (476 or 488), 490</td>
<td>24-27</td>
</tr>
<tr>
<td>Select one writing course (300- or 400-level)</td>
<td>3</td>
</tr>
<tr>
<td>ENG electives</td>
<td>6-12</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

Humanities and Fine Arts

| Philosophy and Religious Studies | 12 |
| History                          | 6  |
| Creative and Performing Arts     | 3  |
Foreign Language and/or Additional Arts and/or Humanities (excludes ENG courses) 3-9
Social Sciences 12
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies 3
Introduction to the University: ASI 150 0-1
General Education courses/academic electives to total at least 124

Minor in English (ENG)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>COLLEGE COMPOSITION I</td>
<td>3</td>
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<tr>
<td></td>
<td>Analysis of the processes of reading and</td>
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<td></td>
<td>writing aimed at the development and</td>
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<td></td>
<td>refinement of critical thinking skills,</td>
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<tr>
<td></td>
<td>critical reading skills, and critical</td>
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<tr>
<td></td>
<td>writing skills. Students must pass course</td>
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<td></td>
<td>with a grade of &quot;C-&quot; or higher to satisfy</td>
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<tr>
<td></td>
<td>the University requirement in general</td>
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<tr>
<td></td>
<td>reading and writing competencies.</td>
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<tr>
<td>ENG 102</td>
<td>COLLEGE COMPOSITION II</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of appropriate rhetorical structures</td>
<td></td>
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<td></td>
<td>and styles for analytic, synthetic, and</td>
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<tr>
<td></td>
<td>argumentative essays. Practice in</td>
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<tr>
<td></td>
<td>developing critical reading and writing</td>
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<td></td>
<td>skills with an emphasis on writing from</td>
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<td></td>
<td>sources. Students must pass the course</td>
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<td></td>
<td>with a grade of &quot;C-&quot; or higher to satisfy</td>
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<tr>
<td></td>
<td>the University requirement in general</td>
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<tr>
<td></td>
<td>reading and writing competencies.</td>
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<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> ENG 101.</td>
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<tr>
<td>ENG 114</td>
<td>FRESHMAN WRITING SEMINAR</td>
<td>3</td>
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<tr>
<td></td>
<td>A one-semester composition course for first-</td>
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<td></td>
<td>year students who show high proficiency.</td>
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<tr>
<td></td>
<td>First term only. Open by permission only.</td>
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<td></td>
<td>Students must pass the course with a grade</td>
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<td></td>
<td>of &quot;C-&quot; or higher to satisfy the University</td>
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<tr>
<td></td>
<td>requirement in general reading and writing</td>
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<tr>
<td></td>
<td>competencies.</td>
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</tr>
<tr>
<td>ENG 151</td>
<td>INTRODUCTION TO LITERATURE</td>
<td>3</td>
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<tr>
<td></td>
<td>A critical study of literary forms - fiction,</td>
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<td>drama, and poetry - representative of</td>
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<td>various eras and cultures. May be taken</td>
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<td>concurrently with ENG 102.</td>
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<td><strong>Prerequisite(s):</strong> ENG 101 or equivalent.</td>
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<tr>
<td>ENG 198</td>
<td>ENGLISH SCHOLARS' SEMINAR</td>
<td>3</td>
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<tr>
<td></td>
<td>Study and seminar discussion of selected</td>
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<td>literary masterworks and appropriate</td>
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<td>criticism thereof, with equal emphasis on</td>
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<tr>
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<td>composition. Open by permission only to</td>
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<td>first-year students in the Berry Scholars</td>
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<td>Program. Students must pass the course with</td>
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<td>a grade of &quot;C-&quot; or higher to satisfy the</td>
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<tr>
<td></td>
<td>University requirement in general reading</td>
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<td></td>
<td>and writing competencies.</td>
<td></td>
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<tr>
<td>ENG 203</td>
<td>MAJOR BRITISH WRITERS</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of four or five writers representative</td>
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<tr>
<td></td>
<td>of the principal periods in English</td>
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<tr>
<td></td>
<td>literature. <strong>Prerequisite(s):</strong> ENG 102</td>
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<tr>
<td></td>
<td>or equivalent.</td>
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<tr>
<td>ENG 204</td>
<td>MAJOR AMERICAN WRITERS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of four or five writers representative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of the principal periods in American</td>
<td></td>
</tr>
<tr>
<td></td>
<td>literature. <strong>Prerequisite(s):</strong> ENG 102</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)In addition to the composition requirement.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 205</td>
<td>MAJOR WORLD WRITERS</td>
<td>3</td>
<td>Study (in translation) of four or five writers representative of the principal periods in (chiefly Western world) literature, exclusive of English and American literature.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 210</td>
<td>POETRY</td>
<td>3</td>
<td>Study of representative examples of a major literary genre.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 230</td>
<td>TOPICS IN LITERATURE</td>
<td>1-6</td>
<td>Exploration of varying approaches to the study of literature. Can be repeated under special circumstances.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 242</td>
<td>SOPHOMORE HONORS</td>
<td>3-6</td>
<td>Seminar in which selected works from the literature of Western civilization are studied.</td>
<td></td>
</tr>
<tr>
<td>ENG 272</td>
<td>WRITING AND RESEARCH</td>
<td>3</td>
<td>Study and practice of research methods commonly required to complete writing assignments across the curriculum. Formulation of research questions, use of appropriate methods to gather data, analysis of information, and creation of effective written documents.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 282</td>
<td>INTRODUCTION TO WRITING POETRY</td>
<td>3</td>
<td>A beginning course in analyzing and writing poetry.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 284</td>
<td>INTRODUCTION TO WRITING FICTION</td>
<td>3</td>
<td>A beginning course in analyzing and writing short fiction.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 286</td>
<td>INTRODUCTION TO WRITING DRAMA</td>
<td>3</td>
<td>A beginning course in analyzing and writing short plays.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 300</td>
<td>LITERARY ANALYSIS AND RESEARCH - POETRY</td>
<td>3</td>
<td>Detailed analysis of selected poems, with attention to their use of traditional forms and conventions, combined with training in standard methods of interpretation and research.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 301</td>
<td>SURVEY OF EARLY ENGLISH LITERATURE</td>
<td>3</td>
<td>Survey of English literature from the Medieval period to the end of the eighteenth century.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 302</td>
<td>SURVEY OF LATER ENGLISH LITERATURE</td>
<td>3</td>
<td>Survey of English literature from the beginning of the Romantic period to the present.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 305</td>
<td>SURVEY OF AMERICAN LITERATURE</td>
<td>3</td>
<td>Survey of American literature from the Colonial period to the present.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 306</td>
<td>SURVEY OF CONTINENTAL LITERATURE</td>
<td>3</td>
<td>Survey of continental European literature from Homer to the present.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 308</td>
<td>ADVANCED WRITING OF POETRY</td>
<td>3</td>
<td>Intensive practice in the writing of poems.</td>
<td>ENG 282 or permission of department chairperson.</td>
</tr>
</tbody>
</table>
ENG 310 ADVANCED WRITING OF FICTION
Intensive practice in the writing of fiction.
Prerequisite(s): ENG 284 or permission of department chairperson.

ENG 312 ADVANCED WRITING OF DRAMA
Intensive practice in the writing of plays.
Prerequisite(s): ENG 286 or permission of department chairperson.

ENG 315 INTRODUCTION TO WRITING CREATIVE NONFICTION
Study, analysis, and writing of a number of creative nonfiction forms, including memoir, personal essay, biography, opinion essay, and weblogs. Focus on writing process, rhetorical awareness, style, and voice in expressive writing.
Prerequisite(s): ENG 102 or equivalent.

ENG 316 ELEMENTS OF STYLE
Study of stylistic options available to all writers. Examination of and practice in adapting writing style for various audiences and purposes, altering style to achieve desired effects, and developing a distinctive written voice.
Prerequisite(s): ENG 102 or equivalent.

ENG 317 CONTEMPORARY POETRY
Study of selected poems by recent writers.
Prerequisite(s): ENG 102 or equivalent.

ENG 319 CONTEMPORARY FICTION
Study of selected novels and short fiction by recent writers.
Prerequisite(s): ENG 102 or equivalent.

ENG 320 CONTEMPORARY DRAMA
Study of selected plays to illustrate major tendencies of modern drama.
Prerequisite(s): ENG 102 or equivalent.

ENG 322 MASTERPIECES OF WORLD LITERATURE
Intensive study of major literary works representative of various cultures. Works are studied in translation, although an English language work or two may be included for appropriate comparison.
Prerequisite(s): ENG 102 or equivalent.

ENG 323 LITERATURE OF THE CHRISTIAN TRADITION
A study of literary works that form part of the Christian religious tradition.
Prerequisite(s): ENG 102 or equivalent.

ENG 324 THE NOVEL
A consideration of selected novels to illustrate various fictional modes.
Prerequisite(s): ENG 102 or equivalent.

ENG 325 SCIENCE FICTION
Survey of science fiction with detailed analysis of selected novels and short fiction.
Prerequisite(s): ENG 102 or equivalent.

ENG 326 SPORT AND LITERATURE
An historical approach to analyzing the function of sport in society and literature, from Greek times to contemporary times.
Prerequisite(s): ENG 102 or equivalent.

ENG 327 STUDIES IN POPULAR FICTION
Analysis of selected artifacts of popular culture with reference to serious literature. May be repeated as topics change.
Prerequisite(s): ENG 102 or equivalent.

ENG 329 SHORT STORY
Study of the techniques employed in the writing of the short story. Analysis of various models of the short story.
Prerequisite(s): ENG 102 or equivalent.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 330</td>
<td>DEVELOPMENT OF DRAMA</td>
<td>Study of the historical development of the drama from its beginnings to the nineteenth century. Analysis of plays from each significant period.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 331</td>
<td>STUDIES IN FILM</td>
<td>Analysis of selected films to show developments in film technique or criticism.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 332</td>
<td>STUDIES IN LITERATURE AND FILM</td>
<td>Studies in literary texts and the film treatments of those texts. May be repeated as topics change.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 333</td>
<td>IMAGES OF WOMEN IN LITERATURE</td>
<td>Examination of significant literary works that portray traditional images of women.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 334</td>
<td>MODERN MEN--IMAGES</td>
<td>Critical examination of significant literary works that portray males in traditional and non-traditional roles.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 335</td>
<td>MODERN BLACK LITERATURE</td>
<td>Study of selected twentieth century black writers.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 336</td>
<td>GENDER IN FICTION</td>
<td>Study of major works of American and British male and female authors from different periods, analyzing the authors, their principal characters, themes, and narrative technique as they reflect different aspects of the issue of gender in literature.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 337</td>
<td>STUDIES IN FOLKLORE</td>
<td>Selected studies in American and/or world folklore. May be repeated as topics change.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 338</td>
<td>IMAGES OF BUSINESS</td>
<td>Examination of the modern world of work, the image of the business &quot;professional,&quot; and the influence of organization on global society and values as these themes are revealed primarily in modern literature.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 339</td>
<td>AMERICAN INDIAN LITERATURE</td>
<td>Survey of American Indian oral narrative and literature.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 340</td>
<td>THE PRISON IN LITERATURE</td>
<td>Survey of prison literature from the rise of the modern prison in the late eighteenth century through the contemporary period.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 342</td>
<td>LITERATURE AND THE ENVIRONMENT</td>
<td>Examination of nature and environment in literature, focusing on literary representations of nature; nature writing; fiction and ecocriticism; the environment and the literary imagination.</td>
<td>ENG 102 or equivalent.</td>
</tr>
<tr>
<td>ENG 345</td>
<td>COLONIAL AND POSTCOLONIAL LITERATURE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Examination of significant literary works that reveal the diversity of human cultures shaped by colonial and postcolonial contexts.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 348 MODERN IRISH LITERATURE**
A consideration principally of the Irish literary revival of the late nineteenth and early twentieth centuries with appropriate background material.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 350 EUROPEAN LITERATURE OF ANTIQUITY**
Study of significant works from the Old Testament and Greek, Roman, English, Irish, and/or Scandinavian writers.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 351 EUROPEAN LITERATURE OF THE MIDDLE AGES**
Study of selected literary masterpieces of western civilization in the Middle Ages.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 353 LITERATURE OF THE RENAISSANCE**
Study of selected literary masterpieces from England and the Continent that illustrate the culture and ideas of the Renaissance.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 354 LITERATURE OF THE ENLIGHTENMENT**
Study of selected English and European literature from the Age of Reason.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 355 LITERATURE OF THE ROMANTIC AGE**
Study of the Romantic Revolution as illustrated in representative writings of English and European authors.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 356 EUROPEAN LITERATURE OF THE NINETEENTH CENTURY**
Study of representative masterpieces from the literature of England and the Continent during the nineteenth century.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 357 EUROPEAN LITERATURE OF THE EARLY TWENTIETH CENTURY**
Study of significant English and European literature that illustrates the ideas and culture of the early modern period.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 358 CONTEMPORARY LITERATURE OF EUROPE**
Study of selected western European literature that illustrates the ideas and culture of the present age.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 362 SHAKESPEARE**
Study of selected plays and poems of Shakespeare.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 362L SHAKESPEARE PERFORMANCE LABORATORY**
Study of Shakespearian performances through films, video tapes, and recordings. Three hours a week. Students in 362L must have already taken or be registered for ENG 362 or an equivalent Shakespeare course.

**Corequisite(s):** ENG 362 or equivalent Shakespeare course.

**ENG 363 SHAKESPEARE’S WORLDS**
A concentrated analysis of the various worlds created in Shakespeare's plays and their interconnection with and depiction of the major elements of the historical world of early modern England. In the process of this integrated analysis, the Historical Study and Arts Study domains will be respected and taught as separate disciplines. This course is cross-listed with HST 308.

**ENG 370 REPORT AND PROPOSAL WRITING**
Analysis and practice in effective report and proposal writing. Emphasis on employing appropriate rhetorical and technological tools to analyze, produce, and edit proposals and reports for both business and non-profit audiences.

**Prerequisite(s):** ENG 102 or equivalent; junior or senior standing.

**ENG 371 TECHNICAL COMMUNICATION**

Study and practice of effective written communication in technical professions. Emphasis on rhetorical and technological tools and editing skills needed to analyze and create technical documents with written and visual elements.

**Prerequisite(s):** ENG 102 or equivalent; junior or senior standing.

**ENG 372 BUSINESS COMMUNICATION**

Study and practice in the principles and processes of effective written communication typically encountered in business and other professions. Focus on use of appropriate rhetorical and technological tools to analyze, write, and edit a range of texts including letters, memos, policies, procedures, job descriptions, resumes, performance reviews, reports, and proposals.

**Prerequisite(s):** ENG 102 or equivalent; junior or senior standing.

**ENG 373 MEDICAL WRITING**

Intensive practice in reading and writing for the healthcare professions. Designed for pre-medicine, pre-dentistry, pre-veterinary, and pre-physical therapy students. Practice in research and workplace writing, uses of narrative in medicine, the personal essay, and MCAT essay.

**Prerequisite(s):** ENG 102 or equivalent; junior or senior standing.

**ENG 375 RHETORIC OF THE WORLD WIDE WEB**

Analysis and production of textual and visual elements common to the World Wide Web. Emphasis on rhetoric of electronic communication, usability, audience analysis, and integrating text and graphics. Basic web development techniques will be covered, but previous experience is helpful. Knowledge of HTML, XML, and style sheets is helpful but not required.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 376 TOPICS IN WRITING**

Analysis of and practice in specific forms of writing. May be repeated as forms change.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 379 RHETORIC OF SCIENCE**

Introduction to the role rhetoric and language play in science writing. Focus on the rhetorical analysis of public policy controversies involving science and technology and the role rhetoric plays in the public's understanding of these issues.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 380 STUDIES IN LITERATURE**

Study of special topics or themes in literature. May be repeated as topics change.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 382 MOZART’S OPERAS**

An interdisciplinary survey of Mozart's operas - German and Italian, serious and comic. Class discussions will be supplemented by extensive listening and/or viewing of recorded performances and, when possible, attendance at live performances.

**ENG 383 THE TRAGIC DILEMMA**

Examination of tragedy from ancient times to modern times, with emphasis on both the form(s) of tragedy and the tragic vision of life.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 384 CHRISTIANITY AND MODERN POETRY**
A study of selected poets from the modern period whose work draws from the major literary, intellectual, cultural, and theological traditions of Christianity.

**Prerequisite(s):** ENG 102 or equivalent.

**ENG 395** JUNIOR HONORS TUTORIAL  
Independent directed study on special topics for selected students. May be repeated as topic or instructor changes.  
**Prerequisite(s):** Permission of department chairperson.

**ENG 405** CHAUCER  
Study of Chaucer's life, world, language, and literary achievement, concentrating on *The Canterbury Tales* (in Middle English).  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 407** MEDIEVAL ENGLISH LITERATURE  
Study of the dominant types in the literature of England from the beginning to 1500.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 410** EARLY RENAISSANCE LITERATURE  
Survey of the literature of the sixteenth century from Thomas More to Sidney and Spenser.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 414** LATER RENAISSANCE LITERATURE  
Survey of the literature of the early seventeenth century from Bacon, Jonson, and Donne to Marvell, exclusive of Milton.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 431** MILTON  
Study of the major and minor poems and selected prose of Milton.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 433** STUDIES IN NEO-CLASSICAL LITERATURE  
Study of English literature from Dryden to Johnson. May be repeated as topics change.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 438** ENGLISH ROMANTICISM  
Study of the major poets and critics of the Romantic Age.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 444** STUDIES IN NINETEENTH-CENTURY ENGLISH LITERATURE  
Study of English literature in the nineteenth century. May be repeated as topics change.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 448** TWENTIETH-CENTURY BRITISH LITERATURE  
Study of significant developments in modern British literature.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 451** AMERICAN ROMANTICISM  
Study of significant developments in American literature of the mid-19th century.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 453** AMERICAN REALISM AND NATURALISM  
Study of representative writers from the post-Civil War period in American literature.  
**Prerequisite(s):** A 200- or 300-level English course.

**ENG 455** TWENTIETH-CENTURY AMERICAN LITERATURE  
Study of significant developments in American literature of the twentieth century.  
**Prerequisite(s):** A 200- or 300-level English course.
ENG 468 INTRODUCTION TO LINGUISTICS
Introduction to the basic concepts and procedures of general linguistics, including language description, history, variation, theory, and acquisition.
Prerequisite(s): A 200- or 300-level English course.

ENG 470 HISTORY OF ENGLISH
Study of stages in the development of the English language and of influences shaping its development from the beginning to the present.
Prerequisite(s): A 200- or 300-level English course.

ENG 472 THE STRUCTURE OF ENGLISH
Study of the grammatical structure of modern English from traditional and modern linguistic points of view.
Prerequisite(s): A 200- or 300-level English course.

ENG 474 ARGUMENTATION
Intensive study of argumentative writing. Theories and principles of argument and persuasion. Emphasis on formal arguments.
Prerequisite(s): ENG 102 or equivalent; junior or senior standing or permission of department chairperson.

ENG 476 COMPOSITION THEORY
Study of the principal current theories of composition, with application to the teaching and evaluating of writing.
Prerequisite(s): ENG 316 or permission of instructor.

ENG 477 HONORS THESIS PROJECT
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approval of University Honors Program.

ENG 478 HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approved 477 and approval of University Honors Program.

ENG 480 INDEPENDENT STUDY
Individual investigations of special topics under faculty direction. May be repeated under special circumstances.
Prerequisite(s): At least fifteen semester hours of English; permission of department chairperson.

ENG 482 MODERN POETRY
Concentrated, advanced study in the development of modern poetry, both English and American.
Prerequisite(s): A 200-or 300-level English course.

ENG 485 INTERNSHIP IN WRITING
Application of writing skills to specific projects of an approved organization. Practical and professional experience offered to juniors and seniors (particularly English majors and minors) as a supplement to the writing curriculum. Option 2 grading only.
Prerequisite(s): ENG 370, 371, 372; junior or senior standing; 2.5 cumulative GPA and at least 3.0 GPA in English courses; permission of Internship Coordinator.

ENG 488 LITERARY THEORY
Comparative critical reading of classical and modern theoretical texts and 
analyis of critical methodology. 
**Prerequisite(s):** A 200- or 300- level English course.  

**ENG 489** RHETORICAL CRITICISM
Study and practice of classical and contemporary rhetorical theories and 
techniques. Focus on writing rhetorical analyses of non-literary texts, 
including political discourse, advertising, scholarly essays, and visual 
images. 
**Prerequisite(s):** (ENG 272 or 316) or permission of instructor; junior or 
senior standing.

**ENG 490** SEMINAR
Concentrated study of a topic designed to integrate selected aspects of 
literary history, critical approaches, and research skills developed by English 
majors in previous required courses. May be repeated as topics change. 
**Prerequisite(s):** ENG 300, 301, 302, 305; (ENG 476 or 488).

**ENG 495** SENIOR HONORS TUTORIAL
Independent directed study on special topics for selected students. May be 
repeated as topic or instructor changes. 
**Prerequisite(s):** Permission of department chairperson.
College of Arts and Sciences

General Studies (Collapse Description)

The Bachelor of General Studies program is designed for those students who desire to pursue a non-traditional degree program at the University outside of any departmental major. This degree program permits great latitude in utilizing the academic resources of the University for planning and acquiring an education to meet individual needs. Students may plan their programs to the best advantage of their particular educational objectives. Students build their programs on the foundation of University General Competencies and General Education requirements.

Majors/Minors

Bachelor of General Studies (GEN)

Admission requirements for the Bachelor of General Studies are the same as those for any other degree offered in the College of Arts and Sciences.

Candidacy for the Bachelor of General Studies may be declared in the first year but not later than the commencement of a student's last thirty semester hours of study. An application for acceptance into the degree program must be completed and approved by an Assistant Dean in the College of Arts and Sciences. Any students in good academic standing may request transfer into this program.

The General Studies student is required to plan an academic program to satisfy the requirements for graduation in consultation with an Assistant Dean. The General Studies student must complete a minimum of the last thirty semester hours of study under the supervision of an Assistant Dean who will serve as the student's advisor. The usual policy of prerequisites remains in effect in this program.

1. University General Competencies and the General Education requirements (see Chapter V),

2. Three semester hours of mathematics selected from courses offered by the Mathematics department (excluding MTH 102, 204, 205),

3. Study of the natural sciences by completing seven semester hours in approved natural science courses (biology, chemistry, geology, physics), including one course with accompanying laboratory,

4. A minimum of fifty-four semester hours of courses at the 300-400 level with a grade point average of 2.0 or better,

5. Not more than thirty semester hours of work from any one academic discipline.

6. Credits earned in completion of the Bachelor of General Studies may not be applied at a later time to the credits for a second degree from the College of Arts and Sciences.

Sem. Hrs. 120
College of Arts and Sciences
(GEO) Geology (Collapse Description)

Geology is the study of the earth. It incorporates many aspects of our complex planet including its composition, structure, environment, dynamic and hazardous processes, and the development of life, continents and oceans through time. Geology plays a critical role in interpreting the earth's long history of global change, and in predicting future environmental change.

The geology department offers two programs leading to a Bachelor of Science in geology and environmental geology. The geology (GEO) major provides basic courses in the geological sciences and a range of advanced level courses that allow students to develop courses of study that complement particular interests within the field. The environmental geology (EVG) program is broad in scope, providing a firm grounding in the fundamentals of earth science as well as an interdisciplinary curriculum including geology, biology, chemistry, and other allied science courses, reflecting the interdisciplinary nature of environmental concerns.

The geology department aims to prepare students for a career in the geological sciences. Graduates of the department are competitive for entry to graduate programs. Geology majors pursue careers in a wide range of settings including: state and federal geological agencies; geological consulting companies; natural resource exploration, development and management; museums; research laboratories; and education. Environmental geologists address critical needs of our society ranging from groundwater protection and water-supply development to the identification and assessment of natural hazards.

A minor in geology consists of twelve semester hours.

Faculty
Donald Pair, Chairperson
Professor Emeritus: Ritter
Professors: Pair, Sandy
Associate Professors: Kozioł, A. McGrew
Assistant Professor: Goldman
Visiting Assistant Professor: S. Wu
Instructor: Schoenenberger

Majors/Minors (Collapse All)

Major/Minor Name
Bachelor of Science with a major in Environmental Geology (EVG)

The following program, leading to the Bachelor of Science with a major in environmental geology, is designed to present students with the basic courses in the geological sciences as well as provide specific environmental geology courses. The program also requires additional related science courses.

<table>
<thead>
<tr>
<th>Sem. Hrs.</th>
<th>Geology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
</tr>
<tr>
<td></td>
<td>GEO 115-115L, 116-116L</td>
</tr>
<tr>
<td></td>
<td>8</td>
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<tr>
<td></td>
<td>Year 2</td>
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<tr>
<td></td>
<td>GEO 201-201L, 208</td>
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<td>7</td>
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<tr>
<td></td>
<td>Year 3</td>
</tr>
<tr>
<td></td>
<td>GEO 301-301L, 307-307L, 310-310L</td>
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<td>12</td>
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<tr>
<td></td>
<td>Year 4</td>
</tr>
<tr>
<td></td>
<td>GEO 308-308L, 309-309L, 479L</td>
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<td>10</td>
</tr>
<tr>
<td></td>
<td>GEO electives (select courses from)</td>
</tr>
<tr>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

Science electives (select courses from:)
BIO 310-310L, 350-350L, 452-452L, 459-459L, 480-480L
CEE 312-312L, 390, 434-434L
CHM 201-201L, 302, 313-313L, 341-341L
CPS 132, 144
MTH 218, 219, 367, 368

Bachelor of Science with a major in Geology (GEO)

Sem. Hrs.

Geology 46

Year 1 8
GEO 115-115L, 116-116L

Year 2 4
GEO 201-201L

Year 3 8
GEO 301-301L, 307-307L

Year 4 18
GEO 303, 310-310L, 401-401L, 403-403L

GEO electives (select courses from:)

Science electives, with accompanying laboratories where applicable (select courses from:)
BIO, CHM, CPS, GEO, MTH, PHY, Engineering

Bachelor of Science with a major in Geology (GEO)

Sem. Hrs.

Geology 46

Year 1 8
GEO 115-115L, 116-116L

Year 2 4
GEO 201-201L

Year 3 8
GEO 301-301L, 307-307L

Year 4 18
GEO 303, 310-310L, 401-401L, 403-403L

GEO electives (select courses from:)

Science electives, with accompanying laboratories where applicable (select courses from:)
BIO, CHM, CPS, GEO, MTH, PHY, Engineering

Bachelor of Science with a major in Geology (GEO)

Sem. Hrs.

Geology 46

Year 1 8
GEO 115-115L, 116-116L

Year 2 4
GEO 201-201L

Year 3 8
GEO 301-301L, 307-307L

Year 4 18
GEO 303, 310-310L, 401-401L, 403-403L

GEO electives (select courses from:)

Science electives, with accompanying laboratories where applicable (select courses from:)
BIO, CHM, CPS, GEO, MTH, PHY, Engineering
### Communication Competencies
- Introduction to the University: ASI 150: 0-1
- General Education courses/academic electives to total at least: 120

1. With permission.
2. May substitute PHY 201-202 with permission.
3. May substitute MTH 148-149, or MTH 137, 138 & 149 with permission.

### Minor in Geology (GEO)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 103</td>
<td>PRINCIPLES OF PHYSICAL GEOGRAPHY</td>
<td>3</td>
</tr>
<tr>
<td>GEO 104</td>
<td>INTRODUCTORY GEOLOGY FIELD COURSE</td>
<td>3</td>
</tr>
<tr>
<td>GEO 109</td>
<td>GENERAL GEOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>GEO 109L</td>
<td>GENERAL GEOLOGY LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td>GEO 115</td>
<td>PHYSICAL GEOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>GEO 115L</td>
<td>PHYSICAL GEOLOGY LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td>GEO 116</td>
<td>GEOLOGICAL HISTORY OF THE EARTH</td>
<td>3</td>
</tr>
<tr>
<td>GEO 116L</td>
<td>GEOLOGICAL HISTORY OF THE EARTH LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td>GEO 198</td>
<td>GEO, LANDSCAPE, AND ENVIRONMENT OF THE MIAMI VALLEY</td>
<td>3</td>
</tr>
<tr>
<td>GEO 201</td>
<td>MINERALOGY</td>
<td>3</td>
</tr>
</tbody>
</table>

Courses (Collapse All Courses)

- **GEO 103** PRINCIPLES OF PHYSICAL GEOGRAPHY
  - Analysis of the physical factors of the earth’s environment: weather, climate, land forms, oceans.
  - Sem. Hrs.: 3

- **GEO 104** INTRODUCTORY GEOLOGY FIELD COURSE
  - Fundamental earth science topics with emphasis on direct field experience. One week on campus, three weeks in the Rocky Mountains near Denver, Colorado, and one week of travel. For all non-geology and non-biology majors.
  - Corequisite(s): BIO 104; (BIO 104L or GEO 104L).
  - Sem. Hrs.: 3

- **GEO 109** GENERAL GEOLOGY
  - Introduction to the earth as a planet, its composition, structure, and evolutionary development; a brief consideration of the life of the past. For the nonscience major. May be taken without laboratory.
  - Sem. Hrs.: 3

- **GEO 109L** GENERAL GEOLOGY LABORATORY
  - Course to accompany GEO 109. Two hours each week.
  - Sem. Hrs.: 1

- **GEO 115** PHYSICAL GEOLOGY
  - Introductory course in geologic principles; the composition and structure of the earth, its land forms, and the agencies active in their production. Laboratory optional for nonmajors.
  - Sem. Hrs.: 3

- **GEO 115L** PHYSICAL GEOLOGY LABORATORY
  - Course to accompany GEO 115. Two hours each week.
  - Prerequisite(s): (GEO 109 or 115); permission of instructor.
  - Sem. Hrs.: 1

- **GEO 116** GEOLOGICAL HISTORY OF THE EARTH
  - A comprehensive study of earth history from its origins to the present.
  - Prerequisite(s): (GEO 109 or 115); permission of instructor.
  - Sem. Hrs.: 3

- **GEO 116L** GEOLOGICAL HISTORY OF THE EARTH LABORATORY
  - Course to accompany GEO 116. Two hours each week.
  - Sem. Hrs.: 1

- **GEO 198** GEO, LANDSCAPE, AND ENVIRONMENT OF THE MIAMI VALLEY
  - Field-based course examining the geologic history of the Miami Valley and Dayton area; processes leading to the modern landscape; the impact of human activity will be assessed.
  - Prerequisite(s): (GEO 109 or 115) or permission of instructor.
  - Sem. Hrs.: 3

- **GEO 201** MINERALOGY
  - Sem. Hrs.: 3
### GEO 201 MINERALOGY LABORATORY
Course to accompany GEO 201. Three hours per week.

### GEO 204 GEOLOGY FOR TEACHERS
Introduction for preservice teachers to the Earth system and the processes that operate in the atmosphere, hydrosphere, biosphere, and solid Earth. Emphasis is on understanding how interactions among these fundamental Earth systems maintain our livable planet. Students will explore the Earth system through best practices in teaching and inquiry, and through field trips. For ECE, EMS, and EMM majors. Students completing this course may not take SCI 210.

**Prerequisite(s):** EDT 110; SCI 190.

### GEO 208 ENVIRONMENTAL GEOLOGY
Study of the relationship of geologic factors to the problems of water supply, pollution, erosion, land use, and earth resources. Laboratory optional.

**Prerequisite(s):** (GEO 109 or 115) or permission of instructor.

### GEO 208L ENVIRONMENTAL GEOLOGY LABORATORY
Course to accompany GEO 208. Two hours each week.

### GEO 218 ENGINEERING GEOLOGY
A comprehensive study of geologic principles applicable to civil engineering practices.

### GEO 301 STRUCTURAL GEOLOGY
The origin and development of structural features of the earth's crust; folding, faulting, volcanism, mountain building, and metamorphism.

**Prerequisite(s):** GEO 115, 116, 201.

### GEO 301L STRUCTURAL GEOLOGY LABORATORY
Course to accompany GEO 301. Two hours each week.

### GEO 302 GLACIAL GEOLOGY
The origin of mountain and continental glaciers; their depositional features and erosive activity; history of glaciation in geologic past with special emphasis on North American Quaternary ice advances.

**Prerequisite(s):** GEO 115, 116.

### GEO 302L GLACIAL GEOLOGY LABORATORY
Course to accompany GEO 302. Two hours each week.

### GEO 303 FIELD GEOLOGY
Study of field relationships in an area containing abundant igneous, metamorphic, and sedimentary rocks.

**Prerequisite(s):** GEO 115, 116.

### GEO 307 GEOMORPHOLOGY
Detailed study of landforms and the erosional processes that develop them.

**Prerequisite(s):** GEO 115, 116.

### GEO 307L GEOMORPHOLOGY LABORATORY
Course to accompany GEO 307. Two hours each week.

### GEO 308 PROBLEMS AND DECISIONS IN ENVIRONMENTAL GEOLOGY
An in-depth examination of selected environmental problems and the way in which scientific information guides practice and policy. Topics will range from investigations of natural hazards to considerations of land use and water resources.

**Prerequisite(s):** (GEO 109 or 115) or permission of instructor.
GEO 308L PROBLEMS AND DECISIONS IN ENVIRONMENTAL GEO LAB
Course to accompany GEO 308. Two hours each week and periodic field work.

GEO 309 SURFACE AND GROUNDWATER HYDROLOGY
This course is designed to provide a science or engineering student with the fundamental concepts and principles central to the study of water as a resource. This will include an examination of all components of the hydrologic cycle including surface-water hydrology and management, groundwater hydrogeology, and water resource management. Prerequisite(s): (GEO 109 or 218) or permission of instructor.

GEO 309L SURFACE AND GROUNDWATER HYDROLOGY LABORATORY
Laboratory exercises to accompany GEO 309. Three hours per week.

GEO 310 STRATIGRAPHY
The interpretation of specific lithotypes and the synthesis of the stratigraphic record. Prerequisite(s): GEO 116.

GEO 310L STRATIGRAPHY LABORATORY
Course to accompany GEO 310. Two hours each week.

GEO 401 PALEONTOLOGY
The study of ancient life. The morphology, ecology, evolution, and stratigraphic distributions of selected invertebrates, vertebrates, and plants.

GEO 401L PALEONTOLOGY LABORATORY
Course to accompany GEO 401. Two hours each week.

GEO 403 SEDIMENTOLOGY
Detailed study of sediments: their sources, environments of deposition, and methods of consolidation. Emphasis on the interpretation of ancient sediments. Prerequisite(s): GEO 201.

GEO 403L SEDIMENTOLOGY LABORATORY
Course to accompany GEO 403. Two hours each week.

GEO 404 PROBLEMS IN GEOLOGY
A consideration of special problems involving advanced work in the laboratory and library; arranged to meet the needs of individual students.

GEO 411 PETROLOGY
Study of the formation of sedimentary, igneous, and metamorphic rocks. Prerequisite(s): GEO 201.

GEO 411L PETROLOGY LABORATORY
Course to accompany GEO 411. Two hours each week. Prerequisite(s): GEO 201.

GEO 412 INTRODUCTORY GEOCHEMISTRY
Study of elementary thermodynamics, aqueous geochemistry, and principles governing the distribution of trace elements, radioisotopes and stable isotopes in igneous, metamorphic and sedimentary rocks. Emphasis on applications and solution of geological problems. Prerequisite(s): GEO 201 or permission of instructor.

GEO 412L INTRODUCTORY GEOCHEMISTRY LABORATORY
Course to accompany GEO 412. Three hours each week.

GEO 450 APPLIED GIS
Concepts and implementation of project design and analysis in geographic information systems (GIS). Students will learn the practice of GIS as a tool for spatial analysis, and as it applies in professional disciplines. The course will stress database design and present skills for data input, query analysis, and data output using GIS.

GEO 477 HONORS THESIS PROJECT
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approval of University Honors Program.

GEO 478 HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approved 477 and approval of University Honors Program.

GEO 479L ENVIRONMENTAL INSTRUMENTATION LABORATORY
The understanding and use of field and laboratory based equipment to study current environmental issues. Emphasis on team-centered approaches to investigating environmental problems.
Prerequisite(s): (BIO 151, 152) or (GEO 115, 116) or permission of instructor.

GEO 495 GEOLOGY SEMINAR
Introduction to professional practices in the geosciences. Students will attend seminar talks by guest speakers, research career options and graduate programs in the earth sciences, develop a professional resume, and participate in other profession-building activities. May be repeated.
Prerequisite(s): Permission of instructor.

GEO 498 GEOLOGICAL RESEARCH AND THESIS
Research project within an area of the geological sciences, including, but not limited to, environmental geology, geochemistry, geomorphology, or paleontology. The results are to be presented in a written thesis.
Prerequisite(s): Permission of instructor.
School of Education and Allied Professions (HSS) Health and Sport Science

The mission of the Department of Health and Sport Science is to prepare students to be proficient and professional in the disciplines of dietetics/nutrition, exercise science, physical education, pre-physical therapy, and sport management.

The department also believes its mission is to provide educational programs and instruction for the health fitness needs of all members of the University community.

The department prepares physical educators to meet the needs of public and private schools. The Exercise Science and Fitness Management Program is designed to prepare students for professional opportunities in areas of corporate health, "wellness" programs and health maintenance in a variety of settings. The Sport Management Program is designed to prepare students for professional opportunities in private sports clubs, health clubs, sports organizations/federations, newspapers, television, sporting goods, and the multitudinous areas of recreation. The Pre-Physical Therapy Program will prepare students for graduate school in physical therapy. The Nutrition and Dietetics Programs prepare students for post-baccalaureate dietetic internships or preprofessional practice programs. Along with minimum ACT/SAT scores, a 2.7 GPA is required for transfer into the Sport Management major and a 2.5 GPA is required to enter any other program within the department.

In all the department's activities there is a constant search for excellence. The long-range goals and strategies relate to this search in teaching, research, inquiry, programs, recruitment of quality students, and service. Commitment to the use of technology in teaching and research is highly valued in the Department of Health and Sport Science.

Faculty

Paul M. Vanderburgh, Chairperson
Professors Emeriti: Drees, LaVanche, Leonard, Morefield, Roberts, Schleppi, Siciliano
Associate Professors: Baer, Brahler, Demarco, Laubach, Linderman, Tittebaum
Assistant Professors: Daprano, Dolan
Lecturer: Gallo

Majors/Minors

Bachelor of Science with a major in Exercise Science and Fitness Management Option I (EES)

Wellness is no longer a health trend or fad, it has become a lifestyle. Career opportunities available to graduates include exercise program directors in business, industry, hospitals, and communities; cardiac rehabilitators; and health and fitness club managers. Specific functions include testing, research, evaluating, and prescribing exercise-related activities, and promoting wellness programs.

First-Year

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**Sophomore-Year**

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**Junior-Year**

**First-Term**

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**Senior-Year**

**First-Term**

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</table>
Bachelor of Science with a major in Exercise Science and Fitness Management Option II (EES)

Wellness is no longer a health trend or fad, it has become a lifestyle. Career opportunities available to graduates include exercise program directors in business, industry, hospitals, and communities; cardiac rehabilitors; and health and fitness club managers. Specific functions include testing, research, evaluating, and prescribing exercise-related activities, and promoting wellness programs.

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Junior-Year

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Senior-Year

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Bachelor of Science with a major in Exercise Science and Pre-Physical Therapy (EPT)

The Exercise Science and Pre-Physical Therapy program is focused on preparing students for entrance to graduate programs in physical therapy. It is designed to optimize graduates' chances of being accepted into some of the top physical therapy schools in the country. These graduate programs are highly selective, and both the undergraduate curriculum and the student's performance are considered in this competitive screening. Employment opportunities for physical therapists are growing faster than any other segment of the healthcare industry. Because of the depth and breadth of the curriculum, a graduate will also have preparation for careers in fitness management and sports rehabilitation.
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PERSUASIVE PUBLIC SPEAKING (CMM 112) | 1            |
| HSS 320     | ESSENTIALS OF STRENGTH CONDITIONING              | 3            |
| HSS 409-409L | KINESIOLOGY (HSS 409)  
KINESIOLOGY LABORATORY (HSS 409L)                 | 4            |
| HSS 428     | HEALTH RESEARCH AND EVALUATION                   | 3            |
| HSS 435     | EXERCISE ECG                                     | 3            |
| PSY 363     | ABNORMAL PSYCHOLOGY                              | 3            |

Senior-Year

First-Term

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| BIO 411-411L | GENERAL MICROBIOLOGY (BIO 411)  
GENERAL MICROBIOLOGY LABORATORY (BIO 411L) | 4            |
| CMM 113     | INTERVIEWING                                     | 1            |
| HSS 220     | ADAPTED PHYSICAL EDUCATION                       | 3            |
| HSS 405     | TESTS AND MEASUREMENTS IN SPORT SCIENCE          | 3            |
| HSS 422     | EXERCISE FOR SPECIAL POPULATIONS                 | 3            |
| HSS 455     | PHYSICAL THERAPY SEMINAR                         | 3            |

Second-Term

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| BIO 403-403L | PHYSIOLOGY I (BIO 403)  
PHYSIOLOGY LABORATORY I (BIO 403L) | 4            |
| HSS 295     | NUTRITION AND HEALTH                             | 3            |
| Art Studies elective |                                        | 3            |
| PHL/REL elective |                                           | 3            |

Bachelor of Science with a major in Food and Nutrition - Didactic Program in Dietetics (EHA)

This program, which leads to a Bachelor of Science degree, prepares students who wish to become registered dietitians. It has a strong science component.

During the last semester of their senior year students make application to a dietetic internship program. These post-baccalaureate programs are usually eight to eleven months in length and will qualify the student to sit for examination to become registered dieticians. Acceptance into the internship program is highly competitive and is based on the student's grades, work experience, recommendation letters, and extra curricular activities. Selection is made through computer matching.

Costs of the didactic program in dietetics may also include laboratory fees, the purchase of a lab coat, and membership fees for the Student Dietetic Association and the American Dietetic Association. No liability insurance is needed since the students in this program do not participate in a practice setting.

The didactic program in dietetics is currently granted developments accreditation by the Commission on Accreditation for Dietetics Education (CADE), Suite 2000, 120 South Riverside Plaza, Chicago, Illinois 60606, Phone: (312) 877-1600.
<table>
<thead>
<tr>
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<td>ECO 203</td>
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<td>HST 103</td>
<td>The West and The World</td>
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<td>Introduction to Statistics</td>
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</table>
Bachelor of Science with a major in Nutrition and Fitness - Nutrition (EHN)

This program offers classes from both the nutrition and exercise curriculum. Those who select the EHN major may take additional classes to qualify them to apply for a dietetic internship following graduation. Students may also fulfill medical or dental schools’ requirements with this program.

**First-Year**

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**Sophomore-Year**

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<td>HSS 109</td>
<td>PERSONAL AND PROFESSIONAL DEVELOPMENT OF THE TEACHER</td>
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Bachelor of Science with a major in Physical Education Pre K-12 (EDP)

The teacher preparation program in Physical Education prepares students to teach children and youth to become physically active for a lifetime. Graduates are licensed to teach Physical Education (Pre-K through 12) in public and parochial schools.
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<td>HSS 185</td>
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<td>COMPUTER APPLICATIONS IN SPORT SCIENCE</td>
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**Sophomore-Year**

**First-Term**

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<td>MOTOR LEARNING DEVELOPMENT</td>
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<td>HSS 295</td>
<td>NUTRITION AND HEALTH</td>
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<tr>
<td>HSS 275</td>
<td>HISTORY OF PHYSICAL EDUCATION AND SPORT</td>
<td>3</td>
</tr>
<tr>
<td>HSS 306</td>
<td>HUMAN PHYSIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>MTH 207</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>MUS 306</td>
<td>HISTORY OF AMERICAN JAZZ</td>
<td>3</td>
</tr>
</tbody>
</table>

**Junior-Year**

**First-Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSS 130</td>
<td>PHYSICAL EDUCATION ACTIVITIES</td>
<td>1</td>
</tr>
<tr>
<td>HSS 187</td>
<td>TEAM SPORTS</td>
<td>2</td>
</tr>
<tr>
<td>HSS 230</td>
<td>BASIC ATHLETIC TRAINING</td>
<td>3</td>
</tr>
<tr>
<td>HSS 320</td>
<td>ESSENTIALS OF STRENGTH CONDITIONING</td>
<td>3</td>
</tr>
<tr>
<td>HSS 324</td>
<td>METHODS OF TEACHING ELEMENTARY PHYSICAL EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td>HSS 448</td>
<td>SAFETY AND THE LAW IN PHYSICAL EDUCATION AND SPORT</td>
<td>3</td>
</tr>
<tr>
<td>PHL/REL elective</td>
<td></td>
<td>3</td>
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</tbody>
</table>

**Second-Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMM 113</td>
<td>INTERVIEWING</td>
<td>1</td>
</tr>
<tr>
<td>EDT 452</td>
<td>CRITICAL READING IN THE CONTENT AREAS</td>
<td>3</td>
</tr>
<tr>
<td>HSS 130</td>
<td>PHYSICAL EDUCATION ACTIVITIES</td>
<td>1</td>
</tr>
<tr>
<td>HSS 220</td>
<td>ADAPTED PHYSICAL EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td>HSS 408-408L</td>
<td>PHYSIOLOGY OF EXERCISE (HSS 408)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PHYSIOLOGY OF EXERCISE LABORATORY (HSS 408L)</td>
<td></td>
</tr>
<tr>
<td>HSS 431</td>
<td>NUTRITION FOR EXERCISE AND SPORT</td>
<td>3</td>
</tr>
<tr>
<td>SOC 328</td>
<td>RACIAL AND ETHNIC MINORITIES</td>
<td>3</td>
</tr>
</tbody>
</table>

**Senior-Year**

**First-Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 305</td>
<td>PHILOSOPHY AND HISTORY OF AMERICAN EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td>HSS 300</td>
<td>METHODS OF TEACHING SECONDARY PHYSICAL EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td>HSS 344</td>
<td>OUTDOOR EDUCATION</td>
<td>2</td>
</tr>
<tr>
<td>HSS 405</td>
<td>TESTS AND MEASUREMENTS IN SPORT SCIENCE</td>
<td>3</td>
</tr>
</tbody>
</table>
Bachelor of Science with a major in Sport Management (ESM)

The Sport Management program prepares students for opportunities in sport, event, and facility management. In particular, Sport Management professionals gain positions in collegiate and professional organizations, sport clubs, and athletic federations, as well as public and private recreation. Opportunities are also available in arenas and convention centers, event management, and all forms of media.

<table>
<thead>
<tr>
<th>First-Year</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Term</td>
<td>15</td>
</tr>
<tr>
<td>ENG 101 COLLEGE COMPOSITION I</td>
<td>3</td>
</tr>
<tr>
<td>HSS 101 INTRODUCTION TO THE UNIVERSITY</td>
<td>1</td>
</tr>
<tr>
<td>HSS 111 INTRODUCTION TO SPORT MANAGEMENT</td>
<td>2</td>
</tr>
<tr>
<td>HSS 226 COMPUTER APPLICATIONS IN SPORT SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td>HST 103 THE WEST AND THE WORLD</td>
<td>3</td>
</tr>
<tr>
<td>--- PHIL 103 INTRODUCTION TO PHILOSOPHY (PHIL 103) or REL (REL 103)</td>
<td>3</td>
</tr>
<tr>
<td>Second-Term</td>
<td>17</td>
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<tr>
<td>CMM 110 GROUP DECISION MAKING</td>
<td>1</td>
</tr>
<tr>
<td>ENG 102 COLLEGE COMPOSITION II</td>
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<tr>
<td>HSS 130 PHYSICAL EDUCATION ACTIVITIES</td>
<td>1</td>
</tr>
<tr>
<td>HSS 226 COMPUTER APPLICATIONS IN SPORT SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td>HSS 275 HISTORY OF PHYSICAL EDUCATION AND SPORT</td>
<td>3</td>
</tr>
<tr>
<td>MTH 207 INTRODUCTION TO STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>--- PHIL 103 INTRODUCTION TO PHILOSOPHY (PHIL 103) or REL (REL 103)</td>
<td>3</td>
</tr>
</tbody>
</table>

| Sophomore-Year                                 | 16        |
| First-Term                                     |           |
| CMM 111 or 112 INFORMATIVE PUBLIC SPEAKING     | 1         |
| (CMM 111) PERSUASIVE PUBLIC SPEAKING (CMM 112)|           |
| HSS 255 SPORT MANAGEMENT PRACTICUM             | 3         |
| --- ANT 150 CULTURAL ANTHROPOLOGY (ANT 150)    | 3         |
| or ECO PRINCIPLES OF MICROECONOMICS (ECO 203)  |           |
| or POL 101 GLOBAL POLITICS (POL 101)           |           |
| or PSY INTRODUCTORY PSYCHOLOGY (PSY 101)       |           |
| 101 or MODERN SOCIAL PROBLEMS (SOC 204)        |           |
| Course in Minor                                | 3         |
| Art Studies elective                           | 3         |
| English writing elective                       | 3         |
| Second-Term                                    | 16        |
| HSS 130 PHYSICAL EDUCATION ACTIVITIES          | 1         |
| HSS 250 PRINCIPLES OF SPORT MANAGEMENT         | 3         |
| HSS 253 SPORT FACILITY OPERATIONS              | 3         |
| Course in Minor                                | 3         |
| Course in Professional Competency              | 3         |
| Physical & Life Science elective               | 3         |
Junior-Year

First-Term
- CMM 113 INTERVIEWING
- HSS 285 SPORT MANAGEMENT FIELD EXPERIENCE
- HSS 349 FINANCING SPORT OPERATIONS
- Course in Minor
- Course in Professional Competency
- English writing elective

Second-Term
- HSS 353 SPORTS MEDIA
- HSS 354 SPORT IN THE GLOBAL COMMUNITY
- HSS 357 SPORTS MARKETING
- Course in Minor
- Course in Professional Competency

Senior-Year

First-Term
- HSS 130 PHYSICAL EDUCATION ACTIVITIES
- HSS 356 HR MANAGEMENT IN HEALTH AND SPORT
- Course in Minor
- Course in Professional Competency
- PHL/REL elective
- Physical & Life Science elective

Second-Term
- HSS 130 PHYSICAL EDUCATION ACTIVITIES
- HSS 448 SAFETY AND THE LAW IN PHYSICAL EDUCATION AND SPORTS
- HSS 485 SPORT MANAGEMENT INTERNSHIP
- Course in Minor
- Course in Professional Competency
- PHL/REL elective

Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDI 468</td>
<td>HONORS THESIS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Selection, design, investigation, and completion of an independent, original research thesis under the guidance of a faculty research director. Restricted to students in the Berry Scholars Program with permission of the program director.</td>
<td></td>
</tr>
<tr>
<td>EDI 499</td>
<td>HONORS THESIS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Selection, design, investigation, and completion of an independent, original research thesis under the guidance of a faculty research director. Restricted to students in the Berry Scholars Program with permission of the program director.</td>
<td></td>
</tr>
<tr>
<td>HSS 101</td>
<td>INTRODUCTION TO THE UNIVERSITY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Examination of the values that foster academic progress in the College, discussion of strategies for taking full advantage of academic opportunities, and integrating formal and experiential learning.</td>
<td></td>
</tr>
<tr>
<td>HSS 109</td>
<td>PERSONAL AND PROFESSIONAL DEVELOPMENT OF THE TEACHER</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A course to help the student define professional goals and assess personal strengths and weaknesses in the light of competencies deemed essential for a physical education teacher.</td>
<td></td>
</tr>
<tr>
<td>HSS 111</td>
<td>INTRODUCTION TO SPORT MANAGEMENT</td>
<td>2</td>
</tr>
</tbody>
</table>
A course to help the student define professional goals and assess personal strengths and weaknesses in the light of competencies deemed essential for a sport management career.

HSS 112   INTRODUCTION TO EXERCISE SCIENCE AND FITNESS MANAGEMENT

A course to help the student define professional goals and assess personal strengths and weaknesses in the light of competencies deemed essential for an exercise science and fitness management career.

HSS 113   INTRO TO DIETETICS AND NUTRITION

To acquaint the students interested in a career in dietetics or nutrition with the professions, roles, responsibilities, and opportunities afforded them. Examples of practice for each area will be explored. Required by all entering first-year students and open to students interested in food and nutrition careers.

HSS 114   INTRODUCTION TO PHYSICAL THERAPY

An introductory seminar discussing the history, present and future, of physical therapy. A successful undergraduate preparation for entrance into this highly selective graduate program will be this field's secondary focus.

HSS 117   PERSONAL AND COMMUNITY HEALTH

Survey of health science and principles of preventive medicine as introduction to other courses in health and sport science.

HSS 130   PHYSICAL EDUCATION ACTIVITIES

Selected courses offered to all University students.

HSS 182   AEROBIC CONDITIONING

Aerobic conditioning techniques developed primarily through running programs. Required for EES and EDP majors.

HSS 184   CONDITIONING

A course designed for Exercise Science and Pre-Physical Therapy majors to introduce them to concepts and techniques of aerobic conditioning using exercise devices such as treadmills, bicycle ergometers, stairmasters, rowing machines, etc.

HSS 185   RHYTHM, DANCE, GAMES & GYMNASTICS

Theory and practice of Educational Games, Educational Dance, and Educational Gymnastics.

HSS 187   TEAM SPORTS

Content and pedagogical content knowledge of selected team sports will be presented. Overview of history, rules, officiating, strategy, and skill practice shall be provided. Students will also gain competence in the instruction, adaptation, modification, and administration of the selected team sports.

HSS 200   MOTOR LEARNING DEVELOPMENT

Investigation of fundamental principles of human movement. Physical and psychological variables essential to motor learning are considered.

HSS 210   INTRODUCTORY FOODS

Study of scientific principles applied to the processing and preparation of food to maintain nutritional quality and aesthetic value. Corequisite(s): HSS 210L.

HSS 210L   INTRODUCTORY FOODS LABORATORY

Course to accompany HSS 210 lecture. Corequisite(s): HSS 210.

HSS 220   ADAPTED PHYSICAL EDUCATION

A course to prepare prospective teachers to adapt a physical education program so all children and youth can successfully participate in activity programs. Study of the atypical child in order to organize and administer a program which will meet individual needs.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSS 223</td>
<td>BASIC MOVEMENT EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The child-centered approach to learning in physical education designed to help children develop greater understanding of themselves as movers, the space in which to move and the factors affecting efficient movement. Developmentally appropriate motor skills, movement concepts and activities (games, dance and gymnastics) are presented as the curriculum model K-12.</td>
<td></td>
</tr>
<tr>
<td>HSS 226</td>
<td>COMPUTER APPLICATIONS IN SPORT SCIENCE</td>
<td>3</td>
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<tr>
<td></td>
<td>The course focuses on understanding the practical uses of computers as a tool in exercise science and sport management activities. Emphasis is placed on demonstrated proficiency in word processing, spreadsheets, graphics, Power Point, and databases and the evaluation and use of specific exercise science and sport management packages. Emphasis will be on use of IBM compatible computers.</td>
<td></td>
</tr>
<tr>
<td>HSS 230</td>
<td>BASIC ATHLETIC TRAINING</td>
<td>3</td>
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<tr>
<td></td>
<td>Application of principles and methods involved in prevention, care, and treatment of athletic injuries. <strong>Prerequisite(s):</strong> HSS 305.</td>
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<tr>
<td>HSS 250</td>
<td>PRINCIPLES OF SPORT MANAGEMENT</td>
<td>3</td>
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<tr>
<td></td>
<td>Examination of the nature of management from theoretical and practical perspectives in a variety of sport settings. Focus on managerial functions and skills. <strong>Prerequisite(s):</strong> HSS 111.</td>
<td></td>
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<tr>
<td>HSS 253</td>
<td>SPORT FACILITY OPERATIONS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The processes of planning, constructing, equipping, maintaining, and operating sport facilities are investigated in this course.</td>
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<tr>
<td>HSS 255</td>
<td>SPORT MANAGEMENT PRACTICUM</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The sport management practicum and seminar is designed for students to gain insight into a wide array of field experiences within this discipline. Students are given choices of field work within a variety of sport and recreation settings. In addition, a weekly seminar is required as part of the practicum experience.</td>
<td></td>
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<tr>
<td>HSS 275</td>
<td>HISTORY OF PHYSICAL EDUCATION AND SPORT</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of the historical development of physical education and sport as it relates to significant events in the history of Western civilization.</td>
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<tr>
<td>HSS 285</td>
<td>SPORT MANAGEMENT FIELD EXPERIENCE</td>
<td>3</td>
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<tr>
<td></td>
<td>This experience is done after completion of HSS 255. 150 clock hours need to be completed for the 3 semester hour experience.</td>
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<tr>
<td>HSS 295</td>
<td>NUTRITION AND HEALTH</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the nutrient needs of humans and of their choices as modified by socioeconomic, cultural, and life cycle factors.</td>
<td></td>
</tr>
<tr>
<td>HSS 300</td>
<td>METHODS OF TEACHING SECONDARY PHYSICAL EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the methods and skills essential for effective teaching in physical education. <strong>Prerequisite(s):</strong> HSS 200.</td>
<td></td>
</tr>
<tr>
<td>HSS 302</td>
<td>GLOBAL AND CULTURAL NUTRITION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the relationship among consumers, the food; the historical evolution of food; socioeconomic influences on food.</td>
<td></td>
</tr>
<tr>
<td>HSS 303</td>
<td>FOOD SERVICE SYSTEMS MANAGEMENT</td>
<td>2</td>
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<tr>
<td></td>
<td>Study of food service organizations and management. Demonstrate the importance of menu as the primary control of the food service system - factors affecting menu planning, customer satisfaction, and management decisions.</td>
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</tr>
<tr>
<td>HSS 304</td>
<td>INSTITUTIONAL QUANTITY FOOD BUYING</td>
<td>2</td>
</tr>
</tbody>
</table>
To study quantity food production in foodservice system through application of principles for determining needs and procuring, producing and storing foods in quantity, along with institutional equipment selection, maintenance, and layout.

**Prerequisite(s):** HSS 210, 210L; a Multipurpose Computer Account (AKA Dial-in/PPP/Flyernet account); basic IBM compatible computer skills.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>HSS 305</td>
<td>HUMAN ANATOMY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the human body with emphasis on the interdependent relationships of structure and function.</td>
<td></td>
</tr>
<tr>
<td>HSS 305L</td>
<td>HUMAN ANATOMY LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Hands-on study of the human body with emphasis on the interdependent relationships of structure and function through the use of interactive anatomy.</td>
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</tr>
<tr>
<td>HSS 306</td>
<td>HUMAN PHYSIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the functions of body systems. Cell physiology, structural contributions or limitations, concepts of biochemistry, control of functions, physiological limits of function, and examples of pathologic developments.</td>
<td></td>
</tr>
<tr>
<td>HSS 307</td>
<td>HUMAN PHYSIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A survey of the functions of body systems with respect to general cell physiology and specialization into tissues, structural contributions to tissue/organ physiology, pertinent concepts of biochemical physiology, tissue metabolism and energy/food requirements during stress and exercise, recent research into control and regulation of functions of major systems, physiologic limitations outside environmental ranges, and selected examples of pathophysiology. Prerequisite(s): CHM 123, 124; HSS 305.</td>
<td></td>
</tr>
<tr>
<td>HSS 308</td>
<td>SCIENCE OF HUMAN MOVEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Provides students with information and skills that will enhance their understanding of the scientific principles of human movement. Topics surveyed include: anatomy, physiology, mechanics, physics, nutrition, and biochemistry, as well as their relationship to health, fitness, and athletic performance.</td>
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</tr>
<tr>
<td>HSS 310</td>
<td>COACHING BASKETBALL</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>The theory, skills, strategies, and methods of coaching basketball. First term, each year. Elective.</td>
<td></td>
</tr>
<tr>
<td>HSS 312</td>
<td>COACHING FOOTBALL</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>The theory, skills, strategies, and methods of coaching football. Second term, each year. Elective.</td>
<td></td>
</tr>
<tr>
<td>HSS 314</td>
<td>COACHING BASEBALL</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>The theory, skills, strategies, and methods of coaching baseball. Elective.</td>
<td></td>
</tr>
<tr>
<td>HSS 316</td>
<td>COACHING SOCCER</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>The theory, skills, strategies, and methods of coaching soccer. Elective.</td>
<td></td>
</tr>
<tr>
<td>HSS 317</td>
<td>COACHING TRACK AND FIELD</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>The theory, skills, strategies, and methods of coaching track and field. Elective.</td>
<td></td>
</tr>
<tr>
<td>HSS 318</td>
<td>TEACHING AND COACHING GOLF</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>The theory, skills, strategies, and methods of teaching and/or coaching golf.</td>
<td></td>
</tr>
<tr>
<td>HSS 320</td>
<td>ESSENTIALS OF STRENGTH CONDITIONING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A course designed to prepare students for the certified strength and conditioning specialist (NSCA) exam. Topics included will pertain to muscular strength and endurance conditioning, physiology of strength conditioning, muscular strength testing and evaluation, and organization/administration of strength training programs.</td>
<td></td>
</tr>
</tbody>
</table>
HSS 324 METHODS OF TEACHING ELEMENTARY PHYSICAL EDUCATION
Basic theory, techniques, and methods for conducting a program for elementary students.
Prerequisite(s): HSS 223; junior standing.

HSS 333 HEALTH, NUTRITION, AND SAFETY FOR THE YOUNG CHILD
This class is designed to emphasize the physical, nutritional, emotional, social, environmental health, and safety of the young child. The class emphasizes the teacher's role in the health/nutritional maintenance of young children. Class will focus on nutrition, safety, and wellness of the young child by creating a healthful school environment.

HSS 334 CPR FOR CHILDREN
Students register for this course in conjunction with HSS 333

HSS 335 MASSAGE THERAPY
Introduction to bodywork and issues of health and wellness. Laboratory sessions will provide an opportunity to integrate and apply massage knowledge and skill drawn from a variety of healing systems; Swedish Massage, Acupressure, Reflexology and Hydrotherapy. Designed for students in Exercise Science, and Pre-Physical Therapy. Required that students have had Human Anatomy, Human Physiology.

HSS 344 OUTDOOR EDUCATION
Action seminar to familiarize teachers and recreation leaders with the curricula, teaching techniques, and skills for good outdoor education programs.

HSS 349 FINANCING SPORT OPERATIONS
The financial concepts and theories and their application in the professional intercollegiate, recreational and commercial sport industries. Topics include revenues and expenses of professional, intercollegiate, and private sport industries; issues affecting these revenues and expenses; fundraising at the intercollegiate level; ownership in sport; and public and private funding for non-profit sports programs.

HSS 353 SPORTS MEDIA
This is the study and the appraisal of the media and the role that it plays in contemporary sports. Attention is also given to preparation and evaluation of media sports presentations.

HSS 354 SPORT IN THE GLOBAL COMMUNITY
Analyze the growth and development of sport throughout the global community with an emphasis on the structure and organization of sport. Additionally, the production of major sport events, such as the Olympics and World Cup Soccer Tournament, will be examined.
Prerequisite(s): HSS 250.

HSS 356 HR MANAGEMENT IN HEALTH AND SPORT
This course is an overview of leadership and human resource management. The course examines the techniques, policies, processes, strategies, and practices used by health-related and sport companies and managers to effectively and efficiently utilize human resources.

HSS 357 SPORTS MARKETING
Course content is designed to give students an understanding of marketing principles applied to sport, sport events, and sport products. Marketing strategies including the sales, promotions, and advertising of sport will be emphasized.

HSS 361 HEALTH CONSUMERISM
Sorting fad from fact in using health products and services from the present market-includes fad diets, nutrition nonsense, survey of medical hoaxes, misleading advertising and protection that is available to all health consumers. Research into current fads and frauds and exposure of health myths and misconceptions is included.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSS 401</td>
<td>ADVANCED NUTRITION</td>
<td>3</td>
<td>(BIO 403 or HSS 307); CHM 314; HSS 295.</td>
</tr>
<tr>
<td>HSS 402</td>
<td>NUTRITION FOR THE AGING ADULT</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>HSS 404</td>
<td>COACHING INTERNSHIP</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>HSS 405</td>
<td>TESTS AND MEASUREMENTS IN SPORT SCIENCE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HSS 406</td>
<td>NUTRITION FOR MOTHER AND CHILD</td>
<td>2</td>
<td>HSS 295, 307.</td>
</tr>
<tr>
<td>HSS 408</td>
<td>PHYSIOLOGY OF EXERCISE</td>
<td>3</td>
<td>HSS 305; (HSS 306 or 307).</td>
</tr>
<tr>
<td>HSS 408L</td>
<td>PHYSIOLOGY OF EXERCISE LABORATORY</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>HSS 409</td>
<td>KINESIOLOGY</td>
<td>3</td>
<td>HSS 305; (HSS 306 or 307).</td>
</tr>
<tr>
<td>HSS 409L</td>
<td>KINESIOLOGY LABORATORY</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>HSS 417</td>
<td>STUDENT TEACHING</td>
<td>12</td>
<td>Formal admission a full semester in advance.</td>
</tr>
<tr>
<td>HSS 422</td>
<td>EXERCISE FOR SPECIAL POPULATIONS</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HSS 428</td>
<td>HEALTH RESEARCH AND EVALUATION</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
HSS 431  NUTRITION FOR EXERCISE AND SPORT
Investigation of current research in the nutritional assessment of the athlete. Topics include dietary needs, fluid replenishment, pre-game meals, and "fad" diets for the athlete.  
**Prerequisite(s):** HSS 295.

HSS 435  EXERCISE ECG
Evaluation of exercise electrocardiograms from healthy persons.  
**Prerequisite(s):** HSS 307, 408, 408L.

HSS 448  SAFETY AND THE LAW IN PHYSICAL EDUCATION AND SPORTS
Study of the legal aspects of physical education and athletics. Analysis of specific court cases. Formulation of safety policies.

HSS 455  SELECTED STUDIES IN PHYSICAL EDUCATION
Investigating, analyzing, and reporting on a problem in physical education.  
**Prerequisite(s):** Permission of department chairperson.

HSS 456  ADVANCED NUTRITIONAL BIOCHEMISTRY
Integration and application of principles of physiology, nutrition and biochemistry to the processes of metabolic function.

HSS 465  PHYSICAL THERAPY SEMINAR
Addresses current issues facing prospective and present physical therapists in a reforming healthcare industry.

HSS 470  CURRICULUM DEVELOPMENT IN PHYSICAL EDUCATION
Principles and procedures for curriculum construction and revision. Study of philosophies (institutional, professional, and personal) and their relationship to curriculum development.

HSS 485  SPORT MANAGEMENT INTERNSHIP
Work experience carried out under the auspices and supervision of the sports management staff. Application and permission of director of Sports Management program required.

HSS 490  EXERCISE SCIENCE INTERNSHIP-ON-CAMPUS
Work experience carried out under the auspices and supervision of the University of Dayton Wellness Program staff. Application and permission of director of Exercise Science and Fitness Management program required.

HSS 491  EXERCISE SCIENCE INTERNSHIP-OFF-CAMPUS
Work experience carried out under the auspices of an industrial, commercial, educational, government or health agency-related wellness program. Application and permission of director of Exercise Science and Fitness Management program required.

HSS 495  MEDICAL NUTRITION THERAPY
Includes the study of professional development assessment, nutrition care planning and the appropriate medical nutrition physiology in humans. Designed for those planning to become a registered dietitian.  
**Prerequisite(s):** (BIO 403 or HSS 307); CHM 314; HSS 401.
College of Arts and Sciences
(HST) History (Collapse Description)

History critically studies the past and those key values which have shaped society. History also provides students with a sense of perspective and with the ability to make critical judgments. Those with a sharply honed historical consciousness know that often what appears to be a simple solution to a simple problem will not work because unexpressed historical forces and traditions lie just beneath the surface. Therefore, historical consciousness helps to make the world comprehensible. To be ignorant of history is to be, in a very fundamental way, intellectually defenseless, unable to understand the workings of this or other societies. Thus all totalitarian societies have stringently controlled the study and writing of history. They recognize that a free mind needs to know its past, to debate and discuss how the world came to be as it is, in order to know what to defend and what to change and how to resist imposed ideologies.

Students majoring in history are offered a flexible curriculum that allows them to have a double major or one or more minors. Students are also strongly encouraged to develop interdisciplinary areas of concentration to meet their interests and vocational goals. Examples of areas of concentration are pre-law, business, international affairs, and historical administration, preservation, and archival management. History majors should consult the department chairperson for a departmental advising brochure and further details. History majors pursue professions in numerous fields including education, law and government, international affairs, archives and museums, communications, and business.

Students in B.A. programs can acquire teacher licensure through the ED11A program (See EDT). For details, consult the department chairperson.

A history minor consists of eighteen semester hours.

Faculty
Julius A. Amin, Chairperson
Professors Emeriti: Alexander, Eid, Maras, Mathias, Steiner, Taylor, Vines
Professors: Amin, Bednarek, Hetlmann, Morrow, Palermo, Schweikart
Associate Professors: Cadegan, Carlson, Darrow, Fleischmann, Flockerzie, Santamarina, Yungblut
Assistant Professors: Agnew, Carter, Hume, Merithew, Santamarina
Adjunct Professor: Gannon
Lecturer: Bartley

Majors/Minors (Collapse All)
Major/Minor Name
Bachelor of Arts with a major in History (HST)

<table>
<thead>
<tr>
<th>History</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST (103 or 198), 251, 252, 301</td>
<td>12</td>
</tr>
<tr>
<td>HST electives (300-level)1</td>
<td>18</td>
</tr>
<tr>
<td>Select two HST seminars (400-level)2</td>
<td>6</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

Humanities and Fine Arts

| Philosophy and Religious Studies | 12        |
| Literature: English or Foreign Language | 3        |
| Creative and Performing Arts     | 3        |
| Foreign Language and/or Additional Arts and/or Humanities | 3-9      |
Social Sciences 12
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies 0-9
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

1 These electives should be distributed so that the student will have taken history (HST) electives in three geographical areas: United States, Europe, and at least one of the following: Africa, Asia, Latin America, Middle East.
2 Three semester hours of the seminar requirement may be achieved through the fulfillment of an experiential component earned through completion of three semester hours of HST 495 Internship.
3 For History majors, this total should include either six to eight semester hours in a foreign language or six semester hours in quantitative skills courses (e.g., computer science, statistics, or mathematics) beyond the Basic Skills mathematics requirement. Where appropriate, this credit may apply to other requirements as well.

Minor in History (HST)

Course Sem. Hrs.
Hist 103, (251 or 252) 6
Select two courses in American history (300- or 400-level) 6
Select two courses in non-American history (300- or 400-level) 6

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 103</td>
<td>THE WEST AND THE WORLD</td>
<td>3</td>
</tr>
<tr>
<td>HST 198</td>
<td>HISTORY SCHOLARS' SEMINAR</td>
<td>3</td>
</tr>
<tr>
<td>HST 251</td>
<td>AMERICAN HISTORY TO 1865</td>
<td>3</td>
</tr>
<tr>
<td>HST 252</td>
<td>AMERICAN HISTORY SINCE 1865</td>
<td>3</td>
</tr>
<tr>
<td>HST 300</td>
<td>CAREER DEVELOPMENT IN HISTORY</td>
<td>1</td>
</tr>
<tr>
<td>HST 301</td>
<td>RESEARCH METHODS SEMINAR</td>
<td>3</td>
</tr>
</tbody>
</table>

Survey of key themes in world history including the social, economic, cultural, political, and environmental forces that shaped the human past throughout the globe.

Study and seminar discussion of selected historical documents dealing with major events and trends in Western civilization since 1715. Open by permission only to first-year students in the Berry Scholars Program.

Survey of the development of the American nation from colonial times to 1865; political trends, economic and social foundations of American institutions. Prerequisite(s): HST 103 or equivalent.

Survey of the development of the nation after the Civil War, stressing social, economic, and political problems. Prerequisite(s): HST 103 or equivalent.

Exploration of career opportunities open to History majors, with special emphasis on strategic planning for a career, creating a job portfolio, and mastering the practical mechanics of job searching. Prerequisite(s): (HST 103 or equivalent); HST 301 (may be taken as a corequisite).

Historical methods, philosophy, and introductory historiography, the last based on the professor's field of specialization. Required for all history majors.
Prerequisite(s): HST 103 or equivalent.

HST 302 HISTORY OF ANCIENT GREECE
Survey of Greek history and culture from the Bronze Age to Alexander the Great.
Prerequisite(s): HST 103 or equivalent.

HST 303 HISTORY OF THE ROMAN REPUBLIC AND EMPIRE
Survey of Roman history with emphasis on the political, social, and institutional evolution of the Roman state and the organization and structure of the Roman Empire.
Prerequisite(s): HST 103 or equivalent.

HST 305 MEDIEVAL EUROPE
European history from the fourth to the fifteenth century, including birth of Middle Ages; development of Christianity; Byzantine, Islamic, and Carolingian Empires; feudalism; Crusades; rise of universities; birth of national cultures.
Prerequisite(s): HST 103 or equivalent.

HST 307 RENAISSANCE AND REFORMATION
The development of European history from the fourteenth to the middle of the seventeenth century. Emphasis on the economic, political, social, and religious aspects of the Renaissance, Protestant Revolution, and Catholic Reformation.
Prerequisite(s): HST 103 or equivalent.

HST 308 SHAKESPEARE'S WORLDS
A concentrated analysis of the various worlds created in Shakespeare's plays and their interconnection with and depiction of the major elements of the historical world of early modern England. In the process of this integrated analysis, the Historical Study and Arts Study domains will be respected and taught as separate disciplines. This course is cross-listed with ENG 363.
Prerequisite(s): HST 103 or equivalent.

HST 311 OLD REGIME EUROPE
From the later Reformation to the era of the French Revolution: intellectual and cultural development; political, economic, and social trends of the Old Regime.
Prerequisite(s): HST 103 or equivalent.

HST 312 AGE OF DEMOCRATIC REVOLUTIONS
Historical analysis of the ideological, political, social and economic changes of the late eighteenth and early nineteenth centuries, emphasizing developments in France and Europe.
Prerequisite(s): HST 103 or equivalent.

HST 313 THE DUAL REVOLUTION AND ITS CONSEQUENCES - EUROPE 1815-1914
Historical analysis of nineteenth century Europe emphasizing the ideological, political, economic and social consequences of the Industrial and French revolutions, commonly known as the Dual Revolution.
Prerequisite(s): HST 103 or equivalent.

HST 314 MODERN EUROPE IN DECLINE - 1890-1945
Historical study of the decline and fall of European civilization from the eve of World War I to the end of World War II, including an examination of political, economic, social, and cultural conditions.
Prerequisite(s): HST 103 or equivalent.

HST 315 EUROPE IN THE POSTWAR ERA - 1945 TO THE PRESENT
Historical survey of domestic and foreign politics, economics, society, and culture in postwar Europe (East and West) from 1945 to the present.
Prerequisite(s): HST 103 or equivalent.

HST 316 BEETHOVEN AND HIS ERA
Survey of the music of Ludwig van Beethoven, including orchestral works and chamber music, opera, keyboard and sacred music; and a survey of the historical context in which Beethoven lived and worked - Europe and the Habsburg Empire of the late eighteenth and early nineteenth centuries, and especially Vienna, the Habsburg capital. Beethoven is the culmination of the High Classic style and also the first of a new generation of Romantic composers.

**Prerequisite(s):** HST 103 or equivalent.

HST 319  HISTORY OF LONDON
Study of the evolution of London from a small Roman town to the world's first industrial metropolis. Particular attention to social and environmental conditions and the life of the people.

**Prerequisite(s):** HST 103 or equivalent.

HST 320  EUROPEAN MILITARY HISTORY
Survey of warfare on the European continent from classical Greece through World War II emphasizing military institutions, organization, weapons, and campaigns and the role of the military in society.

**Prerequisite(s):** HST 103 or equivalent.

HST 321  MODERN FRANCE
French history from the Bourbon Restoration to the present. Emphasis on political, socio-economic, and cultural factors.

**Prerequisite(s):** HST 103 or equivalent.

HST 322  HISTORY OF ENGLAND
Major forces and trends in the history of England from the early medieval period to the present, including their influence on social history and literature.

**Prerequisite(s):** HST 103 or equivalent.

HST 323  MODERN GERMANY
Analysis of the development of the German state from 1848 through the period of unification, Second Empire, Weimar Republic, Third Reich, the post-World War II Germanies, to the present.

**Prerequisite(s):** HST 103 or equivalent.

HST 324  COMPARATIVE NATIONALISM
Comparative study of the origins and consequences of national movements throughout the world. Attention given to the historiography of nationalism and the fate of the nation-state idea in a number of temporal, geographic, political and cultural settings.

**Prerequisite(s):** HST 103 or equivalent.

HST 325  HISTORY OF RUSSIA TO 1860
History of Kievan Russia and Orthodox Christianity, the Mongol Conquest, the rise of autocracy, reforms and rebellions, revolutionary movements, and the rise of the Empire to the Crimean War.

**Prerequisite(s):** HST 103 or equivalent.

HST 326  RUSSIA, THE SOVIET UNION AND BEYOND, 1860-PRESENT
Social, political, and cultural history of Russia from the great reforms of the late empire, through the wars, revolutions, and reconstructions of the Soviet Period, to the present.

**Prerequisite(s):** HST 103 or equivalent.

HST 327  NATIONAL CULTURES OF THE SOVIET UNION AND ITS SUCCESOR STATES
The history of the formation of the Soviet Union and of national and cultural relations between the Russians and their Slavic, Baltic, Caucasus, Central Asian, and Siberian neighbors.

**Prerequisite(s):** HST 103 or equivalent.

HST 328  HISTORY OF EASTERN EUROPE
Survey of the history of the nations lying between Germany and the Soviet Union, the Baltic and Aegean Seas, stressing medieval and early modern background as a foundation of contemporary history.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 330  HISTORY OF SOUTHEAST ASIA**  
Brief review of the early historical development of East Asia; study of China and Japan in the nineteenth and twentieth centuries, emphasizing political, religious, cultural, and economic development.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 331  HISTORY OF INDIA**  
Survey of the development of civilization on the Indian subcontinent from the first extant records (c. 2500 BCE) to post-Independence modern India in connection with the B.A. Program in Philosophy.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 332  MODERN CHINA AND JAPAN**  
Study of the economic, political, social, and cultural developments of modern China and Japan from the eighteenth century to the present.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 333  THE MIDDLE EAST, NINETEENTH AND TWENTIETH CENTURIES**  
Survey of the Ottoman Empire, Iran, Egypt, and the modern states of the Middle East, emphasizing the development of nationalism and the area's role in international politics.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 334  HISTORY OF THE PALESTINIAN-ISRAEL CONFLICT**  
Study of the history of the Palestinian-Israeli conflict from its beginnings in the late nineteenth century up to the present, with emphasis on a variety of historical interpretations of the actions and perspectives of the different parties involved.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 335  HISTORY OF SOUTH ASIA**  
Survey of the major political, religious, cultural and economic developments on the Indian subcontinent over the past 500 years.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 336  HISTORY OF AFRICA TO NINETEENTH CENTURY**  
Study of African history from the emergence of Africa's ancient kingdoms to the end of the trans-Atlantic slave trade in the nineteenth century.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 337  HISTORY OF AFRICA - 19TH CENTURY TO THE PRESENT**  
Emphasis: colonialism and its impact, the growth of nationalism and the problems of contemporary Africa.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 338  STATE AND SECESSION IN SOUTH ASIA**  
Survey of the failure of the nation-state and the rise of secessionist movements in South Asia since 1947.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 339  HISTORY OF SOUTH AFRICA**  
Study of South African society with emphasis on historical interpretations of the origins of segregation, economic growth, nationalism, Apartheid, Bantusans, and other issues of contemporary significance.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 340  HISTORY OF SCIENCE**  
Survey of the development of science from its origins in the ancient world to the present.  
**Prerequisite(s):** HST 103 or equivalent.
HST 341 HISTORICAL PERSPECTIVES ON SCIENCE, TECHNOLOGY, AND SOCIETY

Historical study with an institutional focus of how science and science-based technology have interacted with American society from the Colonial era to the present. Central to this course is the genesis of mass production, its coupling with mass distribution, and the rise of the industrial research laboratory. Primary topics include the Industrial Revolution, the revolution in transport, the introduction of new technologies in the electrical, aviation, automotive, nuclear, petrochemical, and pharmaceutical industries, and the relationship between these science-based technologies and society.

Prerequisite(s): HST 103 or equivalent.

HST 342 ENVIRONMENTAL HISTORY OF THE AMERICAS

A comparison and contrast of the histories of conservationism and environmentalism in the United States, Canada and Latin America.

Prerequisite(s): HST 103 or equivalent.

HST 343 HISTORY OF CIVIL ENGINEERING

Historical study of the development of civil engineering from the origins in the ancient world to the present.

Prerequisite(s): HST 103 or equivalent.

HST 344 HISTORY OF SCIENCE, TECHNOLOGY, AND THE MODERN CORPORATION

Historical study of the emergence of twentieth-century science-based industry.

Prerequisite(s): HST 103 or equivalent.

HST 346 HISTORY OF AMERICAN AVIATION

This course will examine the influence of aviation on the American culture, economy, and military. It will also highlight the development of aviation/aerospace technology.

Prerequisite(s): HST 103 or equivalent.

HST 347 SEX, RACE, AND SCIENCE

Examines the development of scientific research on sex, race, and human nature focusing especially on the biological and the human sciences. Topics will include race science, the study of sex and sexuality, evolutionary accounts of human development, and relations between science and society from 1700.

Prerequisite(s): HST 103 or equivalent.

HST 348 LIFE AND TECHNOLOGY

Study of how conceptions of life and technology have been tied together in key historical periods: from the early modern era, the industrial age, and the information age. Topics include life and mechanical philosophy; energy, work and life; cybernetics; reproductive technologies and genetic engineering; bioinformatics; and automata and robots.

Prerequisite(s): HST 103 or equivalent.

HST 349 TECHNOLOGY AND THE CULTURE OF WAR

Investigation of the role of invention and engineering as it has been related to defense and war throughout the ages, focusing on the interrelationship of policy, strategy, organization, and technology from a global perspective.

Prerequisite(s): HST 103 or equivalent.

HST 351 AMERICAN WOMEN'S AND GENDER HISTORY

Historical study of the changing roles of women in American society, including examination of men's and women's gender roles and the ways in which social, cultural, political, economic, legal, and political factors shape and change gender roles.

Prerequisite(s): HST 103 or equivalent.

HST 352 HISTORY OF THE AMERICAN FAMILY

Survey of the historical development of American family life from the colonial period to the present.

Prerequisite(s): HST 103 or equivalent.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 353</td>
<td>HISTORY OF WOMEN IN EUROPEAN SOCIETIES</td>
<td>Study of the changing roles of women in European societies from the roots of industrialization to the present.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 354</td>
<td>HISTORY OF WOMEN AND GENDER IN THE MIDDLE EAST</td>
<td>Study of the changing roles and status of women in Middle Eastern societies, from the early modern period to present.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 355</td>
<td>AMERICAN URBAN HISTORY</td>
<td>Historical analysis of community life in American society: the nature and development of small towns, cities, and suburbs; communal experience, social organizations, and political culture.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 356</td>
<td>COMPARATIVE HISTORY OF WOMEN IN THE THIRD WORLD</td>
<td>Study of the comparative histories of women in Third World societies from a global perspective, using specific case studies of women in different societies around the world.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 357</td>
<td>LATIN AMERICA IN THE TWENTIETH CENTURY</td>
<td>Intensive examination of revolution and reaction in today's Latin America and the implications for those who formulate U.S. foreign policy.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 358</td>
<td>SOCIAL AND CULTURAL HISTORY OF LATIN AMERICA</td>
<td>Survey of social and cultural history of Latin America and the Caribbean from pre-Columbian times to the present. Emphasis on the interaction between the European colonizer and the Amerindian and African peoples of the hemisphere.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 359</td>
<td>HISTORY OF AMERICAN CITY PLANNING</td>
<td>Historical analysis of efforts by Americans to shape the urban environment, focusing on the emergence of the discipline and profession of city planning. Includes examination of U.S. planning theories developed within a larger Atlantic community.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 360</td>
<td>U.S. LEGAL AND CONSTITUTIONAL HISTORY I</td>
<td>An analysis of the major developments in American legal and constitutional history from colonial beginnings through the Civil War. Emphasis on the relationship between the Constitution, the law, and lawyers, on the one hand, and America's economic, social and political developments, on the other.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 361</td>
<td>U.S. LEGAL AND CONSTITUTIONAL HISTORY II</td>
<td>An analysis of the major developments in American legal and constitutional history from the Reconstruction era to the present. Emphasis on the relationship between the Constitution, the law, and lawyers, on the one hand, and America's economic, social, and political developments, on the other.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 365</td>
<td>AMERICAN FILMS AS HISTORY</td>
<td>Study of the development of American values, myths, institutions, and perspectives through the use of films as a primary source.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
<tr>
<td>HST 369</td>
<td>CIVIL WAR AND RECONSTRUCTION</td>
<td>Remote and immediate causes of the Civil War; problems of North and South during the war; consequences of the war; efforts to create a new Union, 1865 to 1877; problems caused by those efforts.</td>
<td>Prerequisite(s): HST 103 or equivalent.</td>
</tr>
</tbody>
</table>
HST 370 ECONOMIC AND BUSINESS HISTORY OF THE UNITED STATES
Survey and analysis of American economic history, 1600 to present, primarily through a study of American business institutions and leaders. Includes analysis of major economic theories of history as well as case studies of entrepreneurs.
Prerequisite(s): HST 103 or equivalent.

HST 371 UNITED STATES WORKING CLASS
History of American workers - male and female, paid and unpaid, and free and slave - from the beginning of industrialization through the twentieth century.
Prerequisite(s): HST 103 or equivalent.

HST 372 HISTORY OF RELIGION IN THE UNITED STATES
Survey of religion in the United States from the colonial era to the present. Particular attention to the interaction of religion with other aspects of American society and culture.
Prerequisite(s): HST 103 or equivalent.

HST 373 AMERICAN MILITARY HISTORY
Survey of American military affairs, including military, naval, and air campaigns, from early settlement to the present.
Prerequisite(s): HST 103 or equivalent.

HST 374 IRELAND AND AMERICA
Study of the cultural-historical background of both Scotch-Irish and Celtic Irish immigrants to America and how they influenced the varying reactions of the dominant Anglo-Saxon Protestantism of America.
Prerequisite(s): HST 103 or equivalent.

HST 375 HISTORY OF U.S. FOREIGN RELATIONS
Foundations of foreign relations since 1750; the expansion of foreign relations during the continental expansion of the nineteenth century and the beginning of the extra-continental empire in 1898; special emphasis on the emergence of multifaceted and interconnected global foreign relations after 1898.
Prerequisite(s): HST 103 or equivalent.

HST 376 SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES
Social and cultural development of the American people: growth of national spirit, impact of expansion, conflict over slavery, and problems of industrialization and urbanization.
Prerequisite(s): HST 103 or equivalent.

HST 377 CONTEMPORARY AMERICAN HISTORY
The immediate background of contemporary political, social, and economic problems, beginning with the impact of World War II on the United States.
Prerequisite(s): HST 103 or equivalent.

HST 378 HISTORY OF GLOBAL IMMIGRANTS TO THE UNITED STATES
Survey of the impact immigrants have had on the social, political, cultural, and economic life in the United States from the colonial period to the present.
Prerequisite(s): HST 103 or equivalent.

HST 380 NATIVE AMERICAN HISTORY
Historical and descriptive survey of the native peoples of North America.
Prerequisite(s): HST 103 or equivalent.

HST 382 HISTORY OF MEXICO
A survey of Mexican history from pre-Columbian civilization to the present.
Prerequisite(s): HST 103 or equivalent.

HST 383 HISTORY OF THE CARIBBEAN
Study of the cultural, social, economic, and political history of the islands and the northern shore of South America in modern times, stressing areas that have gained independence or autonomy.

**Prerequisite(s):** HST 103 or equivalent.

HST 384 **ECONOMIC HISTORY OF LATIN AMERICA**

Examination of the integration of Latin America into the world trading system and analysis of the twentieth century's successes and failures of export-led growth and industrialization.

**Prerequisite(s):** HST 103 or equivalent.

HST 385 **THE ATLANTIC WORLD, 1492-1800**

A comparative look at the people and cultures of Europe, Africa and the Americas who collaborated in the colonization of the Americas. Topics to be covered will include: slavery, missionary work, virgin soil epidemics, frontier wars, gender and the invention of racial categories.

**Prerequisite(s):** HST 103 or equivalent.

HST 391 **AMERICAN ARCHITECTURAL HISTORY AND PRESERVATION**

A career-oriented course offering a theoretical background in historical preservation and techniques used in identification, research, and recording of historic landmarks worthy of preservation as part of the community heritage.

**Prerequisite(s):** HST 103 or equivalent.

HST 398 **HISTORY OF BLACKS IN THE UNITED STATES, 1526-1900**

Study of the saga of black people in the U.S. from 1526 until 1900.

**Prerequisite(s):** HST 103 or equivalent.

HST 399 **HISTORY OF BLACKS IN THE UNITED STATES SINCE 1900**

Study of the saga of black people in the U.S. from 1900 to the present.

**Prerequisite(s):** HST 103 or equivalent.

HST 477 **HONORS THESIS PROJECT**

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

HST 478 **HONORS THESIS PROJECT**

Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

HST 485 **SEMINAR IN AMERICAN HISTORY**

A reading seminar concentrating on one historical topic in American history for detailed analysis. May be repeated as topics change.

**Prerequisite(s):** (HST 103 or equivalent); (HST 301 or permission of department chairperson).

HST 486 **SEMINAR IN EUROPEAN HISTORY**

A reading seminar concentrating on one historical topic in European history for detailed analysis. May be repeated as topics change.

**Prerequisite(s):** (HST 103 or equivalent); (HST 301 or permission of department chairperson).

HST 487 **SEMINAR IN LATIN AMERICAN HISTORY**
A reading seminar concentrating on one historical topic in Latin American history for detailed analysis. May be repeated as topics change.

**Prerequisite(s):** (HST 103 or equivalent); (HST 301 or permission of department chairperson).

**HST 488 SEMINAR IN AFRICAN HISTORY**  
A reading seminar concentrating on one historical topic in African history for detailed analysis. May be repeated as topics change.  
**Prerequisite(s):** (HST 103 or equivalent); (HST 301 or permission of department chairperson).

**HST 490 SEMINAR IN HISTORIOGRAPHY**  
A reading seminar concentrating on the various techniques and philosophies of history by which historians have done historical research. May be repeated as topics change.  
**Prerequisite(s):** (HST 103 or equivalent); (HST 301 or permission of department chairperson).

**HST 493 SEMINAR IN MIDDLE EASTERN HISTORY**  
A reading seminar concentrating on one historical topic in Middle Eastern history for detailed analysis. May be repeated as topics change.  
**Prerequisite(s):** (HST 103 or equivalent); (HST 301 or permission of department chairperson).

**HST 495 INTERNSHIP**  
Practical and professional experience through work with approved organizations such as historical societies, architectural preservation boards, and business firms.  
**Prerequisite(s):** (HST 103 or equivalent); permission of supervising instructor.

**HST 496 INDEPENDENT STUDY**  
The study of a special topic to be mutually selected by the student and a history professor.  
**Prerequisite(s):** (HST 103 or equivalent); permission of department chairperson.

**HST 497 HONORS TUTORIAL**  
The study of a special topic to be selected by the instructor. Applicants will be admitted on the basis of academic record. May be repeated once.  
**Prerequisite(s):** HST 103 or equivalent.

**HST 499 TOPICS IN HISTORY**  
Specific subtitles and descriptions to be announced in the composite and posted in the History department office.  
**Prerequisite(s):** HST 103 or equivalent.
School of Business Administration

(INB) International Business  (Collapse Description)

The international business major is an interdisciplinary major designed to meet the needs of students interested in different facets of the international area. It may be taken as a stand-alone major, in conjunction with a major or minor in a functional business discipline, or with a major or minor in a language. The business curriculum for the major consists of all core business courses (FIN 301, an upper level ECO, MGT 301, MKT 301, OPS 301, MIS 301 & MGT 490) and their prerequisites, five required international business courses: ECO 461 or ECO 450 or ECO 460, FIN 450, MGT 403 or MGT 414, MKT 340 or MKT 440, and INB 450, plus two international electives. The business electives may come from the courses listed above, which are not selected as a required course, or from courses listed below which are required in the international electives. These electives may be completed as part of a college language major or minor, or from an international course outside the School of Business Administration that is approved by the Director of International Business Programs. One of the two electives is waived if the student has a minor. Both electives are waived if the student has a second major. In addition, competency in a foreign language, which may be demonstrated by successful completion of two semesters of 200 level study or passing of the competency test given by the language department, and an international experience are required. (This may include: participation in a study abroad program; attendance at an educational institution outside the United States; or an international business internship or co-op.)

A minor in international business consists of twenty-four semester hours.

Two certificates in international business are also available for non-business students wishing to demonstrate an interest in international business. One has a marketing or human resource emphasis. The requirements for this are: four core business courses: ACC 207 or 301, ECO 203, MGT 301, and MKT 301, three International Business courses, including two from ECO 460, MGT 403, MGT 414, MKT 340, and MKT 440; plus INB 450. The second certificate has an economics or finance emphasis. The requirements for this are: four or five core business courses: ACC 207 and 208 or ACC 301, ECO 203, 204, and FIN 301, three International Business courses, including two from ECO 461, ECO 450, ECO 460, ACC 412, and FIN 450; plus INB 450.

Other requirements for both certificates include: competency in a foreign language which may be demonstrated by successful completion of two years of college language study or passing of the competency test given by the language department, and an international experience. This may include: participation in a study abroad program; attendance at an educational institution outside the United States; or an international business internship or co-op.

International Business Committee

William Sekely, Director
Burrows (Accounting), Frasca (Economics and Finance), Kanet (MIS and Decision Sciences), McFarlin (Management and Marketing)

Majors/Minors  (Collapse All)

Major/Minor Name
Bachelor of Science with a major in International Business (INB)

<table>
<thead>
<tr>
<th>First-Year</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>BAI 103L₁</td>
<td>BUSINESS COMPUTING LABORATORY</td>
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<tr>
<td>BAI 150</td>
<td>BUSINESS EDUCATIONAL PLANNING</td>
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<td>BAI 151</td>
<td>BUSINESS INTEGRATION EXPERIENCE</td>
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<td>CMM 110²</td>
<td>GROUP DECISION MAKING</td>
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<td>Course</td>
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</tr>
<tr>
<td>ENG 101</td>
<td>COLLEGE COMPOSITION I</td>
</tr>
<tr>
<td>ENG 102</td>
<td>COLLEGE COMPOSITION II</td>
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<tr>
<td>HST 103</td>
<td>THE WEST AND THE WORLD</td>
</tr>
<tr>
<td>MTH 128</td>
<td>FINITE MATHEMATICS</td>
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<td>MTH 129</td>
<td>CALCULUS FOR BUSINESS</td>
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<tr>
<td>PHL 103</td>
<td>INTRODUCTION TO PHILOSOPHY</td>
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<tr>
<td>REL 103</td>
<td>INTRODUCTION TO RELIGION</td>
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Physical and Life Science elective\(^5\)
Social Science elective\(^6\)

**Sophomore-Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ACC 207</td>
<td>INTRODUCTION TO FINANCIAL ACCOUNTING</td>
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<tr>
<td>ACC 208</td>
<td>INTRODUCTION TO MANAGERIAL ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td>CMM 111</td>
<td>INFORMATIVE PUBLIC SPEAKING</td>
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<td>CMM 113</td>
<td>INTERVIEWING</td>
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<tr>
<td>DSC 210</td>
<td>STATISTICS FOR BUSINESS I</td>
<td>3</td>
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<tr>
<td>DSC 211</td>
<td>STATISTICS FOR BUSINESS II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 203</td>
<td>PRINCIPLES OF MICROECONOMICS</td>
<td>3</td>
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<tr>
<td>ECO 204</td>
<td>PRINCIPLES OF MACROECONOMICS</td>
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<tr>
<td>MGT 201</td>
<td>LEGAL ENVIRONMENT OF BUSINESS</td>
<td>3</td>
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<tr>
<td></td>
<td>Business Communication Requirement(^7)</td>
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<tr>
<td></td>
<td>Physical and Life Science elective(^5)</td>
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<tr>
<td></td>
<td>HST elective(^8)</td>
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**Junior-Year**

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<thead>
<tr>
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<td>ECO 460</td>
<td>ECONOMIC DEVELOPMENT AND GROWTH (ECO 460)</td>
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<td>INTERNATIONAL ECONOMICS (ECO 461)</td>
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<tr>
<td>FIN 301</td>
<td>BUSINESS FINANCE</td>
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<td>MGT 301</td>
<td>ORGANIZATIONAL BEHAVIOR</td>
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<td>MGT 403</td>
<td>CROSS-CULTURAL MANAGEMENT (MGT 403)</td>
<td>3</td>
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<td>MULTINATIONAL CORPORATE MANAGEMENT (MGT 414)</td>
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<tr>
<td>MIS 301</td>
<td>INFORMATION SYSTEMS IN ORGANIZATIONS</td>
<td>3</td>
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<tr>
<td>MKT 301</td>
<td>PRINCIPLES OF MARKETING</td>
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</tr>
<tr>
<td>MKT 340</td>
<td>MULTICULTURAL MARKETING ANALYSIS (MKT 340)</td>
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<td></td>
<td>GLOBAL MARKETING (MKT 440)</td>
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<tr>
<td>OPS 301</td>
<td>SURVEY OF OPERATIONS MANAGEMENT</td>
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<tr>
<td>PHIL 313</td>
<td>BUSINESS ETHICS (PHIL 313)</td>
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<tr>
<td>or REL</td>
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<tr>
<td>368</td>
<td>CHRISTIAN ETHICS AND THE BUSINESS WORLD</td>
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<td></td>
<td>REL 368</td>
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<td>General elective(^8)</td>
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**Senior-Year**

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<tr>
<th>Course</th>
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<tr>
<td>FIN 450</td>
<td>INTERNATIONAL BUSINESS FINANCE</td>
<td>3</td>
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<tr>
<td>INB 450</td>
<td>SEMINAR IN CURRENT GLOBAL ISSUES</td>
<td>3</td>
</tr>
<tr>
<td>MGT 490</td>
<td>MANAGING THE ENTERPRISE</td>
<td>3</td>
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<td></td>
<td>General electives(^8)</td>
<td>9</td>
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<tr>
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<td>Arts Study elective(^8)</td>
<td>3</td>
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<tr>
<td></td>
<td>PHL/REL elective(^8)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>INB elective</td>
<td>6</td>
</tr>
</tbody>
</table>

\(^1\) A proficiency test for BAI 103L is available for those with adequate background.
\(^2\) CMM 110, 111 and 113 may be taken during different years than indicated here. Some academic majors recommend taking some of these courses during the junior year. See faculty advisor for other sequencing possibilities.
\(^3\) Students placed in ENG 114 or 198 must take a three semester hour nonbusiness elective.
MTH 102 is recommended to be taken before MATH 128 for students with insufficient knowledge of secondary mathematics. MTH 102 does not count toward minimum graduation requirement.

SBA majors must complete six hours of physical and life sciences. Select from biology, chemistry, physics, or geology. Majors may complete two introductory courses from different disciplines. No lab is required.

SBA majors must complete an additional social science course in ANT, CJS, POL, PSY, SOC, or SWK; in addition to completing ECO 203 and 204, and an economics elective.

Students starting Fall 2005: Select from ENG 370, ENG 372, or ENG 378.

Student enrolled before Fall 2005: Select from ENG 370, ENG 372, ENG 378, CMM 321, CMM 322, CMM 344, CMM 351, or CMM 420.

A minimum of 54 semester hours of all academic work must be at the 300-400 level.

Minor in International Business (INB)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INB 450</td>
<td>SEMINAR IN CURRENT GLOBAL ISSUES</td>
<td>3</td>
</tr>
</tbody>
</table>

Seminar focusing on various contemporary international issues and regions; topics vary. Required of International Business majors and minors and students completing a Certificate in International Business

INB 491 HONORS THESIS

Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the Honors Program and the International Business program director

INB 492 HONORS THESIS

Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the Honors Program and the International Business program director
INB 497 INTERNATIONAL INTERNSHIP
1 - 3
Practical international work experience closely associated with student's major, minor, certificate program. Permission of program director required. See internship coordinator for details.
College of Arts and Sciences

(INS) International Studies  (Collapse Description)

International studies is a multidisciplinary major designed to meet the needs of students interested in acquiring a broadly based international perspective for eventual careers in fields such as government service, international law, teaching, and social service. The curriculum includes a core of required courses, a concentration (Europe, Latin America, global development, human rights, and peace and global security), a foreign language requirement, and additional hours of course work drawn from the multidisciplinary elective pool.

Majors are also required to include an international and/or cross-cultural experiential component in their program. This may be satisfied through study abroad, internship, immersion, service, or work experience. The Center for International Programs can assist students in identifying opportunities.

A minor in international studies consists of twenty-one semester hours.

International Studies Committee

David Darrow, Director
Aaron (International Studies), Bilocerkowycz (Political Science), Carlson (History), Huff (Arts & Sciences), Karns (Political Science), Krugh (Languages), O'Meara (Languages)

Majors/Minors  (Collapse All)

Major/Minor Name

Bachelor of Arts with a major in International Studies (Europe Concentration) (INS)

International Studies  

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 150</td>
<td>3</td>
</tr>
<tr>
<td>ECO 203, 204</td>
<td>6</td>
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<tr>
<td>POL 202, 214</td>
<td>6</td>
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<td>Select one course from:</td>
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<tr>
<td>ASI 112</td>
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<tr>
<td>HST 103, 198</td>
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<td>Select two courses from:</td>
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<tr>
<td>CMS 316, 414</td>
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</tr>
<tr>
<td>ECO 460, 461</td>
<td></td>
</tr>
<tr>
<td>HST 324, 375</td>
<td></td>
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<tr>
<td>POL 331, 335, 406, 408</td>
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<tr>
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<tr>
<td>ENG 322, 345</td>
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<tr>
<td>FRN 352</td>
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<tr>
<td>MUS 303</td>
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</tr>
<tr>
<td>VAH 490</td>
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<tr>
<td>Concentration (Europe)</td>
<td>18</td>
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<tr>
<td>HST 315</td>
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<tr>
<td>POL 320, 321</td>
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<td>Select two courses from:</td>
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<tr>
<td>HST 313, 314, 321, 322, 323, 326, 327, 353</td>
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<td>Select one course from:</td>
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<tr>
<td>ENG 357, 358</td>
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</table>
FRN 362
GER 362
ITA 362
PHL 353, 354, 358, 360
REL 366
SPN 362
VAH 203

Language^2 6
Experiential Requirement^3 1-6
Electives (select from the following)^4 9
ANT 315
CJS 336
CMM 314
ENG 205, 306, 356
FIN 450
HST 311, 319
INS 390, 399
PHL 307, 320, 321, 323, 325, 332, 350, 351, 352
PSY 445
REL 374, 474
SOC 332
VAH 201, 202, 350, 382, 450, 460, 470, 471, 480

Liberal Studies Curriculum

Humanities and Fine Arts

Philosophy and Religious Studies 12
History 6
Literature: English or Foreign Language 3
Creative and Performing Arts 3
Foreign Language and/or Additional Arts and/or Humanities 3
Social Sciences 12
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies 0-9
Introduction to the University: ASI 150 0-1
General Education courses/academic electives to total at least 124

1When offered as Art and Social Activism.
2A student majoring in INS must complete at least six semester hours of upper-level foreign language instruction in one of the following languages: French, German, Italian, Spanish. Foreign language literature in translation courses do not fulfill this requirement. Also, these six semester hours may not duplicate upper-level foreign language courses taken to fulfill the requirement of nine semester hours drawn from the elective pool.
3A student majoring in INS must include an international and/or cross-cultural experiential component in their program prior to graduation. This requirement can be satisfied through participation in a study abroad program, an internship, immersion, service, or work experience. The experience must be for a minimum of four weeks. This experiential component also requires taking either INS 395 or INS 495.
4The remaining nine semester hours are to be chosen from the courses listed under the concentrations or from those listed under electives.

Bachelor of Arts with a major in International Studies (Global Development Concentration) (INS)

Sem. Hrs.

International Studies 61-66
ANT 150 3
ECO 203, 204 6
POL 202, 214  
Select one course from:  
ASI 112  
HST 103, 198  
Select two courses from:  
CMS 316, 414  
ECO 460, 461  
HST 324, 375  
POL 331, 335, 406, 408  
Select one course from:  
ENG 322, 345  
FRN 352  
MUS 303  
VAH 490  

Concentration (Global Development)  
Select three courses from:  
ASI 398  
BIO 395  
ECO 460  
POL 371  
Select one course from:  
HST 324, 330, 331, 333, 334, 337, 339, 342, 354, 356, 357, 358, 383  
Select one course from:  
ANT 306, 360  
CMS 316, 414  
ECO 461  
POL 331  
SOC 328, 339  
Select one course from:  
ENG 345  
PHL 355, 363, 372  

Language  
Select one course from:  

Experiential Requirement  
Select one course from:  

Electives (select from the following)  
ANT 315  
CJS 336  
CMM 314  
ENG 205, 306, 356  
FIN 450  
HST 311, 319  
INS 380, 399  
PHL 307, 320, 321, 323, 324, 325, 332, 350, 351, 352  
PSY 445  
REL 374, 474  
SOC 332  
VAH 201, 202, 350, 360, 382, 450, 460, 470, 471, 480  

Liberal Studies Curriculum  
Humanities and Fine Arts  
Philosophy and Religious Studies  
History  
Literature: English or Foreign Language  
Creative and Performing Arts  
Foreign Language and/or Additional Arts and/or Humanities  
Social Sciences  
Mathematics (excludes MTH 102, 204, 205)  
Natural Sciences  

18
Communication Competencies 0-9
Introduction to the University: ASI 150 0-1
General Education courses/academic electives to total at least 124

1. When offered as Art and Social Activism.
2. A student majoring in INS must complete at least six semester hours of upper-level foreign language instruction in one of the following languages: French, German, Italian, Spanish. Foreign language literature in translation courses do not fulfill this requirement. Also, these six semester hours may not duplicate upper-level foreign language courses taken to fulfill the requirement of nine semester hours drawn from the elective pool.
3. A student majoring in INS must include an international and/or cross-cultural experiential component in their program prior to graduation. This requirement can be satisfied through participation in a study abroad program, an internship, immersion, service, or work experience. The experience must be for a minimum of four weeks. This experiential component also requires taking either INS 395 or INS 495.
4. The remaining nine semester hours are to be chosen from the courses listed under the concentrations or from those listed under electives.

Bachelor of Arts with a major in International Studies (Human Rights Concentration) (INS)

<table>
<thead>
<tr>
<th>International Studies</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 150</td>
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<tr>
<td>ECO 203, 204</td>
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<td>POL 202, 214</td>
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<td>ASI 112</td>
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<td>HST 103, 198</td>
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<td>CMS 316, 414</td>
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<td>ECO 460, 461</td>
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<td>HST 324, 375</td>
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<td>POL 331, 335, 406, 408</td>
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<td>MUS 303</td>
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<td>VAH 490¹</td>
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<td>Concentration (Human Rights)</td>
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<td>PHL 371</td>
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<td>POL 333</td>
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<td>POL 406, 411, 450, 452</td>
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<td>REL 363</td>
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<td>SOC 339, 388</td>
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<td>Select one course from:</td>
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<td>ENG 340</td>
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<td>HST 312, 330, 331, 333, 337, 339, 354, 356, 358, 398, 399</td>
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<td>SPN 342, 380, 480</td>
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<td>VAH 490¹</td>
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<tr>
<td>ASI 398</td>
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<td>CMM 322</td>
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<td>SOC 326, 328, 342</td>
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<td>PHL 310, 314, 317, 364, 370</td>
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¹ When offered as Art and Social Activism.
REL 366, 367, 471

Language\(^2\) 6

Experiential Requirement\(^3\) 1-6

Electives (select from the following)\(^4\) 9
ANT 315
CJS 336
CMM 314
ENG 205, 306, 356
FIN 450
HST 311, 319
INS 390, 399
PHL 307, 320, 321, 323, 324, 325, 332, 350, 351, 352
PSY 445
REL 374, 474
SOC 332
VAH 201, 202, 350, 360, 382, 450, 460, 470, 471, 480

Liberal Studies Curriculum

Humanities and Fine Arts

Philosophy and Religious Studies 12
History 6
Literature: English or Foreign Language 3
Creative and Performing Arts 3
Foreign Language and/or Additional Arts and/or Humanities 3-9

Social Sciences 12
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies 0-12
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

---

1 When offered as Art and Social Activism.

2 A student majoring in INS must complete at least six semester hours of upper-level foreign language instruction in one of the following languages: French, German, Italian, Spanish. Foreign language literature in translation courses do not fulfill this requirement. Also, these six semester hours may not duplicate upper-level foreign language courses taken to fulfill the requirement of nine semester hours drawn from the elective pool.

3 A student majoring in INS must include an international and/or cross-cultural experiential component in their program prior to graduation. This requirement can be satisfied through participation in a study abroad program, an internship, immersion, service, or work experience. The experience must be for a minimum of four weeks. This experiential component also requires taking either INS 395 or INS 495.

4 The remaining nine semester hours are to be chosen from the courses listed under the concentrations or from those listed under electives.

Bachelor of Arts with a major in International Studies (Latin America Concentration) (INS)

Sem. Hrs.

International Studies 61-66

ANT 150 3
ECO 203, 204 6
POL 202, 214 6

Select one course from:
ASI 112
HST 103, 198

Select two courses from:
CMS 316, 414
ECO 460, 461
HST 324, 375
POL 331, 335, 406, 408

Select one course from:

ENG 322, 345
FRN 352
MUS 303
VAH 490

Concentration (Latin America)
HST 357
POL 323, 404
SPN 342

Select two courses from:

ASI 398
ECO 460
HST 358, 382, 383
REL 358

Language

6

Experiential Requirement

1-6

Electives (select from the following)

9

ANT 315
CJS 336
CMM 314
ENG 205, 306, 356
FIN 450
HST 311, 319
INS 390, 399
PHL 307, 320, 321, 323, 324, 325, 332, 350, 351, 352
PSY 445
REL 374, 474
SOC 332
VAH 201, 202, 350, 360, 382, 450, 460, 470, 471, 480

Liberal Studies Curriculum

Humanities and Fine Arts

Philosophy and Religious Studies 12
History 6
Literature: English or Foreign Language 3
Creative and Performing Arts 3
Foreign Language and/or Additional Arts and/or Humanities 3-9

Social Sciences 12
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies 0-12
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

1When offered as Art and Social Activism.

2A student majoring in INS must complete at least six semester hours of upper-level foreign language instruction in one of the following languages: French, German, Italian, Spanish. Foreign language literature in translation courses do not fulfill this requirement. Also, these six semester hours may not duplicate upper-level foreign language courses taken to fulfill the requirement of nine semester hours drawn from the elective pool.

3A student majoring in INS must include an international and/or cross-cultural experiential component in their program prior to graduation. This requirement can be satisfied through participation in a study abroad program, an internship, immersion, service, or work experience. The experience must be for a minimum of four weeks. This experiential component also requires taking either INS 395 or
INS 495.

4 The remaining nine semester hours are to be chosen from the courses listed under the concentrations or from those listed under electives.

Bachelor of Arts with a major in International Studies (Peace and Global Security Concentration) (INS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International Studies</strong></td>
<td>61-66</td>
</tr>
<tr>
<td>ANT 150</td>
<td>3</td>
</tr>
<tr>
<td>ECO 203, 204</td>
<td>6</td>
</tr>
<tr>
<td>POL 202, 214</td>
<td>6</td>
</tr>
<tr>
<td>Select one course from:</td>
<td>3</td>
</tr>
<tr>
<td>ASI 112</td>
<td></td>
</tr>
<tr>
<td>HST 103, 198</td>
<td></td>
</tr>
<tr>
<td>Select one course from:</td>
<td>3</td>
</tr>
<tr>
<td>ENG 322, 345</td>
<td></td>
</tr>
<tr>
<td>FRN 352</td>
<td></td>
</tr>
<tr>
<td>MUS 303</td>
<td></td>
</tr>
<tr>
<td>VAH 490¹</td>
<td></td>
</tr>
<tr>
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<tr>
<td>CMS 316, 414</td>
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<tr>
<td>ECO 460, 461</td>
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<tr>
<td>HST 324, 375</td>
<td></td>
</tr>
<tr>
<td>POL 331, 335, 406, 408</td>
<td></td>
</tr>
<tr>
<td><strong>Concentration (Peace and Global Security)</strong></td>
<td>18</td>
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<tr>
<td>Select two courses from:</td>
<td></td>
</tr>
<tr>
<td>HST 375</td>
<td></td>
</tr>
<tr>
<td>POL 335, 408</td>
<td></td>
</tr>
<tr>
<td>Select one course from:</td>
<td></td>
</tr>
<tr>
<td>PHL 317, 327</td>
<td></td>
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<tr>
<td>Select three courses from:</td>
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<tr>
<td>ANT 360</td>
<td></td>
</tr>
<tr>
<td>CMM 420</td>
<td></td>
</tr>
<tr>
<td>HST 312, 313, 314, 315, 320, 324, 333, 334, 349, 357, 373</td>
<td></td>
</tr>
<tr>
<td>PHL 358</td>
<td></td>
</tr>
<tr>
<td>POL 331, 404, 406, 452</td>
<td></td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Experiential Requirement</strong></td>
<td>1-6</td>
</tr>
<tr>
<td><strong>Electives (select from the following)</strong></td>
<td>9</td>
</tr>
<tr>
<td>ANT 315</td>
<td></td>
</tr>
<tr>
<td>CJS 336</td>
<td></td>
</tr>
<tr>
<td>CMM 314</td>
<td></td>
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<tr>
<td>ENG 205, 306, 356</td>
<td></td>
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<tr>
<td>FIN 450</td>
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</tr>
<tr>
<td>HST 311, 319</td>
<td></td>
</tr>
<tr>
<td>INS 390, 399</td>
<td></td>
</tr>
<tr>
<td>PHL 307, 320, 321, 323, 324, 325, 332, 350, 351, 352</td>
<td></td>
</tr>
<tr>
<td>PSY 445</td>
<td></td>
</tr>
<tr>
<td>REL 374, 474</td>
<td></td>
</tr>
<tr>
<td>SOC 332</td>
<td></td>
</tr>
<tr>
<td>VAH 201, 202, 350, 380, 382, 450, 460, 470, 471, 480</td>
<td></td>
</tr>
</tbody>
</table>

**Liberal Studies Curriculum**

**Humanities and Fine Arts**

<table>
<thead>
<tr>
<th>Component</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Literature: English or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities</td>
<td>3-9</td>
</tr>
</tbody>
</table>
Social Sciences  
Mathematics (excludes MTH 102, 204, 205)  
Natural Sciences

Communication Competencies
Introduction to the University: ASI 150
General Education courses/academic electives to total at least

1. When offered as Art and Social Activism.
2. A student majoring in INS must complete at least six semester hours of upper-level foreign language instruction in one of the following languages: French, German, Italian, Spanish. Foreign language literature in translation courses do not fulfill this requirement. Also, these six semester hours may not duplicate upper-level foreign language courses taken to fulfill the requirement of nine semester hours drawn from the elective pool.
3. A student majoring in INS must include an international and/or cross-cultural experiential component in their program prior to graduation. This requirement can be satisfied through participation in a study abroad program, an internship, immersion, service, or work experience. The experience must be for a minimum of four weeks. This experiential component also requires taking either INS 395 or INS 495.
4. The remaining nine semester hours are to be chosen from the courses listed under the concentrations or from those listed under electives.

Minor in International Studies (INS)

International Studies

Sem. Hrs.

ECO 204  
POL 214  
LNG elective (202-level or higher)  
Select twelve additional semester hours (300- or 400-level)1

1. Must be from at least three different disciplines, taken from International Studies concentrations or electives.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS 390</td>
<td>MODEL UNITED NATIONS</td>
<td>1</td>
</tr>
<tr>
<td>INS 395</td>
<td>INTERNATIONAL EXPERIENCE</td>
<td>1</td>
</tr>
<tr>
<td>INS 399</td>
<td>INDEPENDENT STUDY</td>
<td>3</td>
</tr>
<tr>
<td>INS 433</td>
<td>SEMINAR ON HUMAN RIGHTS SERVICE</td>
<td>1</td>
</tr>
</tbody>
</table>

Examination of the work and procedures of the United Nations and its constituent bodies, study of various international issues and policies of member states, as well as of parliamentary diplomatic practices such as caucusing, resolution writing, and speech making in preparation for participation in Model United Nations simulations.

Prerequisite(s): Permission of instructor.

Orientation for and evaluation of study abroad, internship, immersion, work, or service experience in a foreign country, organization involved in international activities, or a cross-cultural setting in the United States. Grading Option Two only.

Independent reading and research on an interdisciplinary topic in international studies chosen by the student in consultation with one or more faculty members. May be repeated.

Prerequisite(s): Permission of program director.


Prerequisite(s): (PHL 371 or POL 333); junior standing.
INS 477  HONORS THESIS PROJECT  
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons. 
Prerequisite(s): Approval of University Honors Program.

INS 478  HONORS THESIS PROJECT  
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons. 
Prerequisite(s): Approved 477 and approval of University Honors Program.

INS 495  INTERNATIONAL STUDIES INTERNSHIP  
Practical, supervised experience with an approved organization dealing with international affairs. Repeatable up to six hours. 
Prerequisite(s): Permission of program director.
College of Arts and Sciences

(LNG) Languages (Collapse Description)

The Department of Languages offers instruction in Arabic, French, German, Italian, Latin, Russian, and Spanish and thus brings a distinctly international perspective to the university community. The language programs focus on the development of proficiency in speaking, writing, reading, and listening, and integrate the study of literature, linguistics, business and culture. The department also offers a few literature and culture courses taught in English (see CLA, HMS, FRN 350, 352, GER 350, 351, and SPN 350, 360).

Each summer, the Department of Languages conducts one-month language-immersion study programs in Canada, Germany, and Latin America or Spain (alternate years). Participants in these programs can earn up to seven semester hours of language credit at the advanced level.

Students in B.A. programs can acquire teacher licensure in French, German, or Spanish through the E6 or E11A programs (see EDT). For details consult the department chairperson.

All new students who have previously studied their language of choice continue their study in courses in which all enrolled students are at approximately the same level of proficiency. Students' proficiency levels for the first enrollment in a language class are determined by the results of the department's two-phase placement examination. Credit, but not placement, is awarded for scores of three or higher on the Advanced Placement language examinations.

Students may choose a major (twenty-four semester hours at the 300-level or higher) in a single language (French, German, or Spanish) or a composite major in two languages (one of which may be Italian). Many students combine a major in the department with a major in another discipline.

A minor in French, German, Italian, or Spanish consists of twelve semester hours at the 300-level or higher.

Courses beyond the 100-level in Latin and Russian are not offered on a regular basis. Please consult the department chairperson for details.

Faculty

Francisco Peñas-Bermejo, Chairperson
Professors Emeriti: Conard, Romaguera
Professors: Castro, Peñas-Bermejo
Associate Professors: Cavour, Krugh, Mosher, O'Meara
Assistant Professors: Chiodo, Costales
Lecturers: E. Hatch, E. L. Hatch, Tanova

Majors/Minors (Collapse All)

Major/Minor Name

Bachelor of Arts with a major in French (FRN)

<table>
<thead>
<tr>
<th>French</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRN (311 or 312), (321 or 322)</td>
<td>6</td>
</tr>
<tr>
<td>Select two courses, including at least one in literature, from:</td>
<td>6</td>
</tr>
<tr>
<td>FRN 341, 360, 361, 362, 381, 450, 452</td>
<td></td>
</tr>
<tr>
<td>FRN electives (300- or 400-level)</td>
<td>12</td>
</tr>
<tr>
<td>LNG 495</td>
<td>1</td>
</tr>
</tbody>
</table>
Liberal Studies Curriculum

Humanities and Fine Arts
- Philosophy and Religious Studies: 12
- History: 6
- Creative and Performing Arts: 3
- Foreign Language and/or Additional Arts and/or Humanities: 3
- Social Sciences: 12
- Literature: English or Foreign Language: 3
- Natural Sciences: 11
- Foreign Language and/or Additional Arts and/or Humanities: 3

Communication Competencies: 0-9
Introduction to the University: ASI 150: 0-1

General Education courses/academic electives to total at least 124

1 Only one literature in translation course may count toward the major. Students in the E11A program should note that courses in translation do not count toward the forty-five semester hours of a foreign language required for teacher certification.

Bachelor of Arts with a major in German (GER)

German

GER (311 or 312), (321 or 322): 6
Select two courses, including at least one in literature, from:
- GER 341, 361, 362, 450: 6
- GER electives (300- or 400-level): 12
- LNG 495: 1

Liberal Studies Curriculum
- Philosophy and Religious Studies: 12
- History: 6
- Creative and Performing Arts: 3
- Natural Sciences: 11

Communication Competencies: 0-9
Introduction to the University: ASI 150: 0-1

General Education courses/academic electives to total at least 124

1 Only one literature in translation course may count toward the major. Students in the E11A program should note that courses in translation do not count toward the forty-five semester hours of a foreign language required for teacher certification.

Bachelor of Arts with a major in Languages (LNG)

Languages

Composite major in Languages: 24
LNG 495: 1

Liberal Studies Curriculum
- Philosophy and Religious Studies: 12
- Social Sciences: 12
- Creative and Performing Arts: 3
- Natural Sciences: 11
Communication Competencies

Introduction to the University: ASI 150

General Education courses/academic electives to total at least 124

1 Students in the E11A program should note that courses in translation do not count toward the forty-five semester hours of a foreign language required for teacher certification.

2 Upper-level courses to total twenty-four semester hours distributed between two languages. Courses must include at least one three-semester-hour literature course, not including literature in translation. (Only one literature in translation may count toward the major.)

Bachelor of Arts with a major in Spanish (SPN)

Spanish

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPN (311 or 312), (321 or 322)</td>
<td>6</td>
</tr>
<tr>
<td>Select two courses, at least one in literature, from:</td>
<td>6</td>
</tr>
<tr>
<td>SPN 341, 342, 361, 362, 363, 364, 450, 451, 471, 472</td>
<td></td>
</tr>
<tr>
<td>SPN electives 1</td>
<td>12</td>
</tr>
<tr>
<td>LNG 495</td>
<td>1</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

Humanities and Fine Arts

<table>
<thead>
<tr>
<th>Field</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

Communication Competencies

Introduction to the University: ASI 150

General Education courses/academic electives to total at least 124

1 Only one literature in translation course may count toward the major. Students in the E11A program should note that courses in translation do not count toward the forty-five semester hours of a foreign language required for teacher certification.

Minor in French (FRN)

French

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select twelve semester hours (300- or 400-level)</td>
<td>12</td>
</tr>
</tbody>
</table>

Minor in German (GER)

German

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select twelve semester hours (300- or 400-level)</td>
<td>12</td>
</tr>
</tbody>
</table>

Minor in Italian (ITA)

Italian

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select twelve semester hours (300- or 400-level)</td>
<td>12</td>
</tr>
</tbody>
</table>
Minor in Spanish (SPN)

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select twelve semester hours (300- or 400-level)</td>
<td>12</td>
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</tbody>
</table>

### Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRN 101</td>
<td>BEGINNING FRENCH I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 101 restricted to those who have not studied French or have placed into that course by examination. Credit is for only one of the following: 101-102 or 111 or 121.</td>
<td></td>
</tr>
<tr>
<td>FRN 101C</td>
<td>BEGINNING CONVERSATION PRACTICE IN FRENCH I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Practice in speaking French on the most basic level. Corequisite(s): FRN 101 or permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>FRN 102</td>
<td>BEGINNING FRENCH II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 102 is open only to those who have successfully completed 101 at the University of Dayton. Credit is for only one of the following: 101-102 or 111 or 121. Prerequisite(s): FRN 101.</td>
<td></td>
</tr>
<tr>
<td>FRN 102C</td>
<td>BEGINNING CONVERSATION PRACTICE IN FRENCH II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Practice in speaking French in everyday situations. Corequisite(s): FRN 102 or permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>FRN 111</td>
<td>INTENSIVE BEGINNING FRENCH</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Intensive development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission restricted to those who have not studied French. Recommended for those who have had successful experience learning another language. Credit granted for only one of the following: 101-102 or 111 or 121.</td>
<td></td>
</tr>
<tr>
<td>FRN 121</td>
<td>ELEMENTARY FRENCH</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Review and further development of fundamental communication skills in reading, listening, writing, and speaking. Admission restricted to those who have studied the language for at least two years in high school or the equivalent and place into the course by examination. Credit granted for only one of the following: 101-102 OR 111 OR 121.</td>
<td></td>
</tr>
<tr>
<td>FRN 141</td>
<td>BASIC PROFICIENCY IN FRENCH</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Further development of communication skills in reading, listening, writing, and speaking. Admission by examination or successful completion of 102 or 111 or 121. Successful completion of this course includes the demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum.</td>
<td></td>
</tr>
<tr>
<td>FRN 141C</td>
<td>BASIC SPEAKING PROFICIENCY IN FRENCH</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Further development of speaking skills. Corequisite(s): FRN 141 or permission of department chairperson.</td>
<td></td>
</tr>
<tr>
<td>FRN 201</td>
<td>INTERMEDIATE FRENCH I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Development of listening, speaking, reading, and writing skills. Language laboratory required. Prerequisite(s): FRN 141.</td>
<td></td>
</tr>
<tr>
<td>FRN 202</td>
<td>INTERMEDIATE FRENCH II</td>
<td>3</td>
</tr>
</tbody>
</table>
Development of listening, speaking, reading, and writing skills. Language laboratory required.

**Prerequisite(s):** FRN 201.

FRN 226  BASICS OF COMPUTER FRENCH
Introduction to French computer vocabulary and expressions and to the literature and status of the information sciences in France. Translation of articles and advertisements in the field from French to English.

**Prerequisite(s):** FRN 202.

FRN 270  INTERMEDIATE STUDY ABROAD
Intermediate intensive study in a foreign country/region whose everyday language is French. Instruction in language, culture and civilization. Conducted in French. Available only during the summer session. Repeatable when subtitle and content change.

**Prerequisite(s):** FRN 141 or equivalent.

FRN 229  FRENCH GRAMMAR AND SYNTAX
Systematic review of basic grammatical concepts necessary for communicating effectively in French. Extensive practice in analyzing, producing, and explaining correct grammatical structures. Strongly recommended for prospective teachers.

**Prerequisite(s):** FRN 202.

FRN 311  FRENCH CONVERSATION I
Intensive practice in speaking French to develop oral communication skills. Emphasis on vocabulary development, listening comprehension, simulation of life-like situations, and discussions on French life and culture.

**Prerequisite(s):** FRN 202.

FRN 312  FRENCH CONVERSATION II
Intensive practice in speaking French to develop oral communication skills. Emphasis on vocabulary development, listening comprehension, simulation of life-like situations, and discussions on French life and culture.

**Prerequisite(s):** FRN 202.

FRN 321  FRENCH COMPOSITION I
Practice in composition on topics dealing with French life and culture. Systematic vocabulary enrichment, refinement of grammar, and assimilation of stylistic patterns. Emphasis on correct writing and creativity. Initiation into the concept of style in French prose.

**Prerequisite(s):** FRN 311 or 312.

FRN 322  FRENCH COMPOSITION II
Practice in composition on topics dealing with French life and culture. Systematic vocabulary enrichment, refinement of grammar, and assimilation of stylistic patterns. Emphasis on correct writing and creativity. Initiation into the concept of style in French prose.

**Prerequisite(s):** FRN 311 or 312.

FRN 325  INTRODUCTION TO COMMERCIAL FRENCH
Introduction to French business and the French position in international trade. Basic vocabulary of the office and the world of trade, introduction to formal correspondence and transactions.

**Prerequisite(s):** FRN 311 or 312.

FRN 326  ADVANCED COMPUTER FRENCH
Intensive practice of translation from English to French and French to English of professional and technical computer-related literature from such fields as business, computer science, and education.

**Prerequisite(s):** FRN 226; (FRN 311 or 312).

FRN 331  FRENCH PHONETICS AND DICTION
Formation of the sounds of French, rules of pronunciation, use of phonetic transcription, practical exercises in interpretive reading. Recommended for French majors and required for prospective teachers.

**Prerequisite(s):** FRN 311 or 312.
FRN 341  FRENCH CULTURE AND CIVILIZATION
Introduction to the history of French civilization with emphasis on the arts and life in each major cultural period. Recommended for all French majors and minors.
Prerequisite(s): FRN 311 or 312.

FRN 350  FRENCH LITERATURE IN TRANSLATION
Course to acquaint nonmajors and nonminors with major French writers and literary movements. Conducted in English. Repeatable when subtitle and content change.

FRN 352  OLD WORLD MEETS NEW (ENG)
Readings of (1) non-fictional narratives regarding French encounters with American Indians in the sixteenth and seventeenth centuries and (2) literary and philosophical works on this topic. Conducted in English.

FRN 360  EXPLICATION DE TEXTES
Introduction to method of analyzing literary texts, both prose and poetry. Elements of French versification. Recommended for all French majors and prospective teachers.
Prerequisite(s): FRN 311 or 312.

FRN 361  SURVEY OF FRENCH LITERATURE I
Major texts, trends, authors from the Middle Ages to the present, showing influences and continuity. Lectures, discussions, oral and written reports. Recommended for all French majors and prospective teachers.
Prerequisite(s): FRN 311 or 312.

FRN 362  SURVEY OF FRENCH LITERATURE II
Major texts, trends, authors from the Middle Ages to the present, showing influences and continuity. Lectures, discussions, oral and written reports. Recommended for all French majors and prospective teachers.
Prerequisite(s): FRN 311 or 312.

FRN 370  ADVANCED STUDY ABROAD
Advanced intensive study in a foreign country/region whose everyday language is French, treating its language, culture, and civilization. Conducted in French. Available only during the summer session. Repeatable when subtitle and content change.
Prerequisite(s): FRN 202 or equivalent.

FRN 381  HISTORY OF FRENCH CINEMA
A survey of the trends, styles, and principal directors in the history of French cinema. Discussion of personal, social, and cultural values portrayed in films.
Prerequisite(s): FRN 311 or 312.

FRN 425  ADVANCED COMMERCIAL FRENCH
Intensive study of business in France. Emphasis on specialized vocabulary, style, and syntax in commercial correspondence and accurate translation of current documents related to business and publicity.
Prerequisite(s): (FRN 321 or 322); FRN 325.

FRN 450  FRENCH LITERATURE
Lectures and discussion concentrating on specialized genres, periods, or authors. Repeatable when subtitle and content change.
Prerequisite(s): FRN 311 or 312.

FRN 452  OLD WORLD MEETS NEW (FRN)
Readings of (1) non-fictional narratives regarding French encounters with American Indians in the sixteenth and seventeenth centuries and (2) literary and philosophical works on this topic. Conducted in French.
Prerequisite(s): FRN 311 or 312.

FRN 469  FRENCH LINGUISTICS
A synchronic analysis of modern French language, including a contrast of the French sound system, morphology, and syntax with English structures; the historical derivation of French, creolization, and approaches to teaching French to English-speaking persons. Conducted in French.  
**Prerequisite(s):** (FRN 311 or 312); LNG 468.

**FRN 491 INDEPENDENT STUDY**  
1 - 3  
Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of the chairperson.  
**Prerequisite(s):** FRN 202; permission of department chairperson.

**GER 101 BEGINNING GERMAN I**  
3  
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 101 restricted to those who have not studied German or have placed into that course by examination. Credit is for only one of the following: 101-102 or 111 or 121.

**GER 101C BEGINNING CONVERSATION PRACTICE IN GERMAN I**  
1  
Practice in speaking German on the most basic level.  
**Corequisite(s):** GER 101 or permission of department chairperson.

**GER 102 BEGINNING GERMAN II**  
3  
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 102 is open only to those who have successfully completed 101 at the University of Dayton. Credit for only one of the following: 101-102 or 111 or 121.  
**Prerequisite(s):** GER 101.

**GER 102C BEGINNING CONVERSATION PRACTICE IN GERMAN II**  
1  
Practice in speaking German in everyday situations.  
**Corequisite(s):** GER 102 or permission of department chairperson.

**GER 111 INTENSIVE BEGINNING GERMAN**  
6  
Intensive development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission restricted to those who have not studied German. Recommended for those who have had successful experience learning another language. Credit granted for only one of the following: 101-102 OR 111 OR 121.

**GER 111C INTENSIVE BEGINNING GERMAN I**  
1  
Practice in speaking German on the most basic level.  
**Corequisite(s):** GER 111 or permission of department chairperson.

**GER 121 ELEMENTARY GERMAN**  
4  
Review and further development of fundamental communication skills in reading, listening, writing, and speaking. Admission restricted to those who have studied the language for at least two years in high school or the equivalent and place into the course by examination. Credit granted for only one of the following: 101-102 or 111 or 121.

**GER 141 BASIC PROFICIENCY IN GERMAN**  
3  
Further development of communication skills in reading, listening, writing, and speaking. Admission by examination or successful completion of 102 or 111 or 121. Successful completion of this course includes the demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum.

**GER 141C BASIC SPEAKING PROFICIENCY IN GERMAN**  
1  
Further development of speaking skills.  
**Corequisite(s):** GER 141 or permission of department chairperson.

**GER 201 INTERMEDIATE GERMAN I**  
3  
Systematic grammar review. Increased use of the language in written exercises and classroom discussions based on readings. Exposure to the development of German civilization and culture.  
**Prerequisite(s):** GER 141.

**GER 202 INTERMEDIATE GERMAN II**  
3
Systematic grammar review. Increased use of the language in written exercises and classroom discussions based on readings. Exposure to the development of German civilization and culture.

**Prerequisite(s):** GER 201.

**GER 311** GERMAN CONVERSATION I

Practice to increase listening comprehension and fluency in speaking about topics from the personal and everyday to issues of current interest with focus on describing and narrating in paragraph-length structures. In-depth exploration of cultural commonalities and differences between the German-speaking countries and the United States. Focus on development of vocabulary and practice of expressions essential for oral communication. May be taken in either sequence.

**Prerequisite(s):** GER 202.

**GER 312** GERMAN CONVERSATION II

Practice to increase listening comprehension and fluency in speaking about topics from the personal and everyday to issues of current interest with focus on describing and narrating in paragraph-length structures. In-depth exploration of cultural commonalities and differences between the German-speaking countries and the United States. Focus on development of vocabulary and practice of expressions essential for oral communication. May be taken in either sequence.

**Prerequisite(s):** GER 202.

**GER 321** GERMAN COMPOSITION I

Practice in personal and topical writing in German that seeks to develop the ability to write well-structured paragraphs. Systematic vocabulary building and grammatical refinement and review. Readings on key issues of the day and/or topics providing crucial insight into German and European thinking and concerns. May be taken in either sequence.

**Prerequisite(s):** GER 311 or 312.

**GER 322** GERMAN COMPOSITION II

Practice in personal and topical writing in German that seeks to develop the ability to write well-structured paragraphs. Systematic vocabulary building and grammatical refinement and review. Readings on key issues of the day and/or topics providing crucial insight into German and European thinking and concerns. May be taken in either sequence.

**Prerequisite(s):** GER 311 or 312.

**GER 325** COMMERCIAL GERMAN

Introduction to the business language, customs, and economic profile of the German-speaking countries. Vocabulary of the office and world of trade. Business correspondence. Germany's economic and cultural position and goals within the context of the European Union and the world. Course provides an introduction to working in an international business setting.

**Prerequisite(s):** (GER 311 or 312) or equivalent.

**GER 341** GERMAN CULTURE AND CIVILIZATION

Introduction to German culture and civilization with emphasis on the arts, intellectual developments, and life in various periods of German history. Conducted in German.

**Prerequisite(s):** GER 311 or 312.

**GER 342** GERMANY AND THE NEW EUROPE

Examination of developments in the life and culture, and the political, economic, and social realities in Germany from the end of WWI to the reunited country of today which is the largest member of EU. Course also explores the ideas and ideals on which the EU is founded, its present influence in the world, and how this new Europe differs from the United States of America. Conducted in German.

**Prerequisite(s):** (GER 311 or 312) or equivalent.

**GER 350** GERMAN LITERATURE IN TRANSLATION

Course to acquaint nonmajors and nonminors with major German writers and literary movements. Conducted in English. Repeatable when subtitle and content change.
GER 351 GERMAN FILM
Introduction to the aesthetic and thematic richness of German film. Students will study the cinema of the Weimar Republic within its historical context and its appropriation by Hollywood. This course will also introduce cross-cultural films having to do with identity, women, immigrant workers, asylum seekers, postcolonialization, nationalism, social theory, ideology, and political activism.
Prerequisite(s): GER 311 or 312.

GER 361 SURVEY OF GERMAN LITERATURE I
German literary works from 1750 to the present reflecting the philosophy, aesthetics, and concerns of the time. Skills development for reading literary and cultural texts and writing on analytic and interpretative topics. May be taken in either sequence.
Prerequisite(s): ((GER 311 or 312); (GER 321 or 322)) or equivalent.

GER 362 SURVEY OF GERMAN LITERATURE II
German literary works from 1750 to the present reflecting the philosophy, aesthetics, and concerns of the time. Skills development for reading literary and cultural texts and writing on analytic and interpretative topics. May be taken in either sequence.
Prerequisite(s): ((GER 311 or 312); (GER 321 or 322)) or equivalent.

GER 370 STUDY ABROAD
Intensive study in a foreign country whose everyday language is German, treating the culture and civilization of the country. Conducted in German. Available only during the summer session. Repeatable when subtitle and content change.
Prerequisite(s): GER 202.

GER 450 GERMAN LITERATURE
Lectures and discussions in German in such specialized areas as Medieval lyric, Romanticism, twentieth-century novel, modern drama, and individual authors. Repeatable when subtitle and content change.
Prerequisite(s): GER 311 or 312.

GER 469 GERMAN LINGUISTICS
A synchronic analysis of modern German language, including a contrast of the German sound system, morphology, and syntax with English structures; the historical derivation of German, the modern German dialects, and approaches to teaching German to English-speakers. Conducted in German.
Prerequisite(s): (GER 311 or 312); LNG 468.

GER 491 INDEPENDENT STUDY
Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairperson.
Prerequisite(s): GER 202; permission of instructor.

HND 101 BEGINNING HINDI I
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 101 restricted to those who have not studied Hindi or have placed into that course by examination. Offered only in India in connection with the B.A. Program in Philosophy. Credit is granted for only one of the following: HND 101-102 or HND 121.

HND 102 BEGINNING HINDI II
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 102 is open only to those who have successfully completed 101. Offered only in India in connection with the B.A. Program in Philosophy. Credit is granted for only one of the following: HND 101-102 or HND 121.

HND 121 ELEMENTARY HINDI
Review and further development of fundamental communication skills in reading, listening, writing, and speaking. Admission restricted to those who have studied the language for at least two years and place into the course.
by examination. Offered only in India in connection with the B.A. Program in Philosophy. Credit granted for only one of the following: HND 101-102 or HND 121.

HND 141 BASIC PROFICIENCY IN HINDI
Further development of communication skills in reading, listening, writing, and speaking. Admission by examination or successful completion of HND 102 or HND 121. Successful completion of this course includes the demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum. Offered only in India in connection with the B.A. Program in Philosophy.

HND 201 INTERMEDIATE HINDI I
Review of the essentials of grammar, intensive conversation and comprehension exercises, reading of graded modern prose and poetry; brief essays in Hindi. Offered only in India in connection with the B.A. Program in Philosophy.

HND 202 INTERMEDIATE HINDI II
Review of the essentials of grammar, intensive conversation and comprehension exercises, reading of graded modern prose and poetry; brief essays in Hindi. Offered only in India in connection with the B.A. Program in Philosophy.

Prerequisite(s): HND 141; previous study of elementary Hindi in school or elsewhere; ability to speak, read, understand, and write simple Hindi.

ITA 101 BEGINNING ITALIAN
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. No previous study of Italian is presupposed.

ITA 101A BEGINNING ITALIAN I
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use.

ITA 101B BEGINNING ITALIAN II
Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use.

Prerequisite(s): ITA 101A.

ITA 141 BASIC PROFICIENCY IN ITALIAN
Further development of communication skills in reading, listening, writing, and speaking. Admission by the successful completion of 101 or permission. Successful completion of this course includes demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum.

Prerequisite(s): ITA 101 or permission of instructor.

ITA 201 INTERMEDIATE ITALIAN I
Development of listening, speaking, reading, and writing skills. Conversation practice, oral reports, reading assignments, composition assignments, and grammar exercises. The course is conducted in Italian.

Prerequisite(s): ITA 141.

ITA 202 INTERMEDIATE ITALIAN II
Development of listening, speaking, reading, and writing skills. Conversation practice, oral reports, reading assignments, composition assignments, and grammar exercises. The course is conducted in Italian.

Prerequisite(s): ITA 201.

ITA 313 COMMUNICATING IN ITALIAN I
Intensive practice in speaking and writing Italian at an advanced level. Emphasis on building vocabulary, learning correct idiomatic usage, increasing fluency, and improving syntax and style. The course is conducted in Italian. ITA 313 and 314 may be taken in either sequence.

Prerequisite(s): ITA 202.
ITA 314 COMMUNICATING IN ITALIAN II
Intensive practice in speaking and writing Italian at an advanced level. Emphasis on building vocabulary, learning correct idiomatic usage, increasing fluency, and improving syntax and style. The course is conducted in Italian. ITA 313 and 314 may be taken in either sequence. 
Prerequisite(s): ITA 202.

ITA 341 ITALIAN CULTURE AND CIVILIZATION I
Survey of the major historical and cultural events in Italy from the Middle Ages to the present. All readings, lectures, discussions, reports, and tests are in Italian. ITA 341 and 342 may be taken in either sequence. 
Prerequisite(s): ITA 202.

ITA 342 ITALIAN CULTURE AND CIVILIZATION II
Survey of the major historical and cultural events in Italy from the Middle Ages to the present. All readings, lectures, discussion, reports, and tests are in Italian. ITA 341 and 342 may be taken in either sequence. 
Prerequisite(s): ITA 202.

ITA 361 SURVEY OF ITALIAN LITERATURE I
Italian literature from its beginnings in the thirteenth century to the present. Principal writers and literary trends; the techniques of literary analysis. Lectures, discussions, readings, and papers are in Italian. ITA 361 and 362 may be taken in either sequence. 
Prerequisite(s): ITA 202.

ITA 362 SURVEY OF ITALIAN LITERATURE II
Italian literature from its beginnings in the thirteenth century to the present. Principal writers and literary trends; the techniques of literary analysis. Lectures, discussions, readings, and papers are in Italian. ITA 361 and 362 may be taken in either sequence. 
Prerequisite(s): ITA 202.

ITA 491 INDEPENDENT STUDY
Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairperson. 
Prerequisite(s): ITA 202 or permission of instructor.

LAT 101 BEGINNING LATIN I
Development of fundamental reading skills through extensive practice in language use. Admission to 101 restricted to those who have not studied Latin or have placed into that course by examination. Credit is granted for only one of the following: 101-102 or 121.

LAT 102 BEGINNING LATIN II
Development of fundamental reading skills through extensive practice in language use. Admission to 102 is open only to those who have successfully completed 101 at the University of Dayton. Credit is granted for only one of the following: 101-102 or 121. 
Prerequisite(s): LAT 101.

LAT 121 ELEMENTARY LATIN
Review and further development of the fundamental reading skills. Admission restricted to those who have studied the language for at least two years in high school or the equivalent and place into the course by examination. Credit granted for only one of the following: 101-102 or 121. 
Prerequisite(s): Minimum of two years high school study of specific language; placement by examination.

LAT 141 BASIC PROFICIENCY IN LATIN
Further development of reading skills. Admission by examination or successful completion of 102 or 121. Successful completion of this course includes the demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum. 
Prerequisite(s): (LAT 102 or 121) or placement by examination.
LAT 201 INTERMEDIATE LATIN I
Systematic review of grammar, exercises in vocabulary development, readings from Caesar, Cicero, Virgil, or Ovid.
Prerequisite(s): LAT 141.

LAT 202 INTERMEDIATE LATIN I, II
Systematic review of grammar, exercises in vocabulary development, readings from Caesar, Cicero, Virgil, or Ovid.
Prerequisite(s): LAT 201.

LAT 321 LATIN COMPOSITION AND SYNTAX
Practice in writing Latin, for enrichment of vocabulary, refinement of grammar, and control of major Latin prose styles.
Prerequisite(s): LAT 202.

LAT 350 LATIN LITERATURE
Advanced readings in a particular author or genre (epic, drama, history, philosophy). Repeatable when subtitle and content change.
Prerequisite(s): LAT 202.

LAT 491 INDEPENDENT STUDY
1-3
Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairperson.
Prerequisite(s): LAT 202 or permission of department chairperson.

LNG 101 BEGINNING LANGUAGE STUDY
Development of fundamental communication skills in reading, listening, writing, and speaking with a focus on basic proficiency in survival communication, and familiarization with culture in languages other than those regularly taught in the Department of Languages. May be offered through distance learning or study abroad with the support of the Department of Languages. No previous study of the language is presupposed (for 101 only). Offered with different suffixes according to the language studied.

LNG 141 BASIC PROFICIENCY IN LANGUAGE
Further development of communication skills in reading, listening, writing, and speaking with a focus on basic proficiency in survival communication, and familiarization with culture in languages other than those regularly taught in the Department of Languages. Offered with different suffixes according to the language studied.
Prerequisite(s): LNG 101 in the same language or equivalent.

LNG 201 INTERMEDIATE LANGUAGE I
Expansion and extension of listening, speaking, reading, and writing skills through conversation practice, reading assignments, composition assignments, and grammar exercises. Offered with different suffixes according to the language studied.
Prerequisite(s): LNG 141 in the same language or equivalent.

LNG 202 INTERMEDIATE LANGUAGE II
Continued development of proficiency in listening, speaking, reading and writing through conversation practice, reading assignments, composition assignments, and grammar exercises. Offered with different suffixes according to the language studied.
Prerequisite(s): LNG 201 in the same language or equivalent.

LNG 330 PRE-SECONDARY FOREIGN LANGUAGE EDUCATION
An introduction to the pedagogical, philosophical, and psychological aspects of teaching foreign languages, with emphasis on pre-secondary students. Topics: technology, national and state standards, learners with special needs, reading in the foreign language, and professional associations. Fee.
Prerequisite(s): EDT 110, 110L; at least one 300-level course in the language to be taught.

LNG 468 INTRODUCTION TO LINGUISTICS
Survey of the various aspects of a scientific description of human language: phonetics, phonology, morphology, syntax, semantics, and pragmatics. Interdisciplinary exploration of the reciprocal impact of linguistics on psychology, sociology, and language acquisition theory.

**Prerequisite(s):** (CMM 101 or CMM modules) or equivalent; ENG 102.

**LNG 477**  HONORS THESIS PROJECT

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**LNG 478**  HONORS THESIS PROJECT

Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**LNG 495**  THE LANGUAGE MAJOR IN PROFESSIONAL CAREERS

Exploration of life-long learning opportunities to maintain and increase functional proficiency in the language studied; the relationship between language proficiency and cross-cultural studies and the application of language proficiency in the work place; determination of the student's proficiency-level at the conclusion of the undergraduate experience. Required of declared majors in languages (FRN, GER, LNG, and SPN). Taught in English.

**Prerequisite(s):** Completion of 18 credit hours of upper-division courses in language major.

**RUS 101**  BEGINNING RUSSIAN

Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. No previous study of Russian presupposed.

**RUS 141**  BASIC PROFICIENCY IN RUSSIAN

Further development of communication skills in reading, listening, writing, and speaking. Successful completion of this course includes demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum.

**Prerequisite(s):** RUS 101 or permission of instructor.

**RUS 201**  INTERMEDIATE RUSSIAN I

Review of the essentials of grammar, intensive conversation and comprehension exercises, reading of graded modern and contemporary prose and poetry.

**Prerequisite(s):** RUS 141.

**RUS 202**  INTERMEDIATE RUSSIAN II

Review of the essentials of grammar, intensive conversation and comprehension exercises, reading of graded modern and contemporary prose and poetry.

**Prerequisite(s):** RUS 201.

**RUS 311**  RUSSIAN CONVERSATION I

Vocabulary development, pattern drills, and the use of idioms in discussion and oral reports centered on Russian life and culture. RUS 311 and 312 may be taken in either sequence.

**Prerequisite(s):** RUS 202.

**RUS 312**  RUSSIAN CONVERSATION II
Vocabulary development, pattern drills, and the use of idioms in discussion and oral reports centered on Russian life and culture. RUS 311 and 312 may be taken in either sequence.

**Prerequisite(s):** RUS 202.

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<th>Course Code</th>
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<tbody>
<tr>
<td>RUS 321</td>
<td>RUSSIAN COMPOSITION</td>
<td>3</td>
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<td>Practice in composition on topics dealing with Russian life and culture; personal and business letters. Short weekly assignments to build vocabulary and control of idioms. <strong>Prerequisite(s):</strong> RUS 202.</td>
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<tr>
<td>RUS 361</td>
<td>SURVEY OF RUSSIAN LITERATURE</td>
<td>3</td>
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<td>Russian literature and its development during the nineteenth and twentieth centuries. Study of exemplary works and literary movements. <strong>Prerequisite(s):</strong> RUS 202.</td>
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<tr>
<td>RUS 491</td>
<td>INDEPENDENT STUDY</td>
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<td>Independent study under the guidance of an instructor. Admission to course and number of semester hours require approval of chairperson. Repeatable when content changes.</td>
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<tr>
<td>SPN 101</td>
<td>BEGINNING SPANISH I</td>
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<td>Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 101 restricted to those who have not studied Spanish or have placed into that course by examination. Credit is for only one of the following: 101-102 or 111 or 121. <strong>Corequisite(s):</strong> SPN 101 or permission of department chairperson.</td>
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<tr>
<td>SPN 102</td>
<td>BEGINNING SPANISH II</td>
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<td>Development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission to 102 is open only to those who have successfully completed 101 at the University of Dayton. Credit is for only one of the following: 101-102 or 111 or 121. <strong>Prerequisite(s):</strong> SPN 101.</td>
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<td>SPN 102C</td>
<td>BEGINNING CONVERSATION PRACTICE IN SPANISH I</td>
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<td>Practice in speaking Spanish on the most basic level. <strong>Corequisite(s):</strong> SPN 101 or permission of department chairperson.</td>
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<td>SPN 111</td>
<td>INTENSIVE BEGINNING SPANISH</td>
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<td>Intensive development of fundamental communication skills in reading, listening, writing, and speaking through extensive practice in language use. Admission restricted to those who have had successful experience learning another language. Credit granted for only one of the following: 101-102 or 111 or 121. <strong>Corequisite(s):</strong> SPN 102 or permission of department chairperson.</td>
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<td>SPN 121</td>
<td>ELEMENTARY SPANISH</td>
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<td>Review and further development of fundamental communication skills in reading, listening, writing, and speaking. Admission restricted to those who have studied the language for at least two years in high school or the equivalent and place into the course by examination. Credit granted for only one of the following: 101-102 or 111 or 121.</td>
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<tr>
<td>SPN 141</td>
<td>BASIC PROFICIENCY IN SPANISH</td>
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<td>Further development of communication skills in reading, listening, writing, and speaking. Admission by examination or successful completion of 102 or 111 or 121. Successful completion of this course includes the demonstration of the minimal level of proficiency required for the College of Arts and Sciences' Liberal Studies Curriculum.</td>
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<td>SPN 141C</td>
<td>BASIC SPEAKING PROFICIENCY IN SPANISH</td>
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<td><strong>Corequisite(s):</strong> SPN 101 or permission of department chairperson.</td>
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</tr>
</tbody>
</table>
Further development of speaking skills.

Corequisite(s): SPN 141.

SPN 201 INTERMEDIATE SPANISH I
Intensive development of the basic principles of Spanish through writing and conversation, stressing fluency. Language laboratory required.
Prerequisite(s): SPN 141.

SPN 202 INTERMEDIATE SPANISH II
Intensive development of the basic principles of Spanish through writing and conversation, stressing fluency. Language laboratory required.
Prerequisite(s): SPN 201.

SPN 270 STUDY ABROAD
Intensive study in a foreign country whose everyday language is Spanish, treating the culture and civilization of the country. Conducted in Spanish. Available only during the summer session. Repeatable when subtitle and content change.
Prerequisite(s): SPN 141 or equivalent.

SPN 290 SPANISH GRAMMAR & SYNTAX
Systematic review of basic grammatical concepts necessary for communicating effectively in Spanish. Extensive practice in analyzing, generating, and explaining correct grammatical structures. Recommended for prospective teachers.
Prerequisite(s): SPN 202 or equivalent.

SPN 311 SPANISH CONVERSATION I
Development of fluency in the vocabulary and idioms of the spoken language through discussion of topics related to contemporary life in the Hispanic world.
Prerequisite(s): SPN 202.

SPN 312 SPANISH CONVERSATION II
Development of fluency in the vocabulary and idioms of the spoken language through discussion of topics related to contemporary life in the Hispanic world.
Prerequisite(s): SPN 311.

SPN 321 SPANISH COMPOSITION I
Practice in composition on a variety of topics. Systematic refinement and mastery of grammar and assimilation of stylistic patterns. Emphasis on developing facility in writing clearly and correctly in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 322 SPANISH COMPOSITION II
Practice in composition on a variety of topics. Systematic refinement and mastery of grammar and assimilation of stylistic patterns. Emphasis on developing facility in writing clearly and correctly in Spanish.
Prerequisite(s): SPN 321.

SPN 325 COMMERCIAL SPANISH
Introduction to commercial correspondence as a basis for developing skills in writing Spanish business letters and other correspondence.
Prerequisite(s): SPN 311 or 312.

SPN 341 SPANISH CULTURE AND CIVILIZATION
Readings and discussions on the historical, social, political, and cultural phenomena of Spain. Conducted in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 342 IBERO-AMERICAN CULTURE AND CIVILIZATION
Readings and discussions on the historical, social, political, and cultural phenomena of Ibero-America. Conducted in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 350 HISPANIC LITERATURE IN TRANSLATION
Course to acquaint nonmajors and nonminors with major Spanish and Spanish-American writers and literary movements. Conducted in English. Repeatable when subtitle and content change.

SPN 361 SURVEY OF SPANISH LITERATURE I
3
Readings and analysis of the works of major Spanish authors and discussion of the principal literary trends in Spain from the Middle Ages to the twentieth century. Lectures, discussions, and assignments in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 362 SURVEY OF SPANISH LITERATURE II
3
Readings and analysis of the works of major Spanish authors and discussion of the principal literary trends in Spain from the Middle Ages to the twentieth century. Lectures, discussions, and assignments in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 363 SURVEY OF SPANISH-AMERICAN LITERATURE I
3
Readings and analysis of the works of major Spanish-American authors and discussion of the principal literary trends in Spanish America from Discovery and Conquest through Realism and Naturalism. Conducted in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 364 SURVEY OF SPANISH-AMERICAN LITERATURE II
3
Readings and analysis of the works of major Spanish-American authors and discussion of the principal literary trends in Spanish America from Modernism through the present day. Conducted in Spanish.
Prerequisite(s): SPN 311 or 312.

SPN 370 STUDY ABROAD
1 - 6
Intensive study in a foreign country whose everyday language is Spanish, treating the culture and civilization of the country. Conducted in Spanish. Available only during the summer session. Repeatable when subtitle and content change.
Prerequisite(s): SPN 202.

SPN 390 SPANISH AND IBERO-AMERICAN CINEMA
3
Introduction to cinematography and culture of Spanish and Ibero-American countries, emphasizing themes related to human rights (Socioeconomic, class, sexuality, gender, ethnicity), as well as critical and theoretical perspectives on films from these regions. Conducted in English.
Prerequisite(s): ENG 102 or equivalent.

SPN 450 TOPICS IN SPANISH LITERATURE
3
Lectures and discussions concentrating on specialized genres, periods, or authors of Peninsular literature prior to the twentieth century. Conducted in Spanish. Repeatable when subtitle and content change.
Prerequisite(s): SPN 311 or 312.

SPN 451 TOPICS IN SPANISH-AMERICAN LITERATURE
3
Lectures and discussions concentrating on specialized genres, periods, or authors of Spanish-American literature prior to the twentieth century. Conducted in Spanish. Repeatable when subtitle and content change.
Prerequisite(s): SPN 311 or 312.

SPN 469 SPANISH LINGUISTICS
3
A synchronic analysis of modern Spanish language, including a contrast of the Spanish sound system, morphology, and syntax with English structures; the historical derivation of Spanish, the modern Spanish dialects (Spain and Latin America), and approaches to teaching Spanish to English speakers. Conducted in Spanish.
Prerequisite(s): LNG 468; (SPN 311 or 312).

SPN 471 TOPICS IN SPANISH LITERATURE OF THE TWENTIETH CENTURY
3
Lectures and discussions concentrating on specialized periods, genres, or authors of twentieth-century Peninsular literature. Conducted in Spanish. Repeatable when subtitle and content change.
Prerequisite(s): SPN 311 or 312.
SPN 472  TOPICS IN SPANISH-AMERICAN LITERATURE OF THE TWENTIETH CENTURY  
Lectures and discussions concentrating on specialized periods, genres or authors of twentieth-century Spanish-American literature. Conducted in Spanish. Repeatable when subtitle and content change. 
Prerequisite(s): SPN 311 or 312.

SPN 480  SPANISH AND IBERO-AMERICAN CINEMA  
Introduction to cinematography and culture of Spanish and Ibero-American countries, emphasizing themes related to human rights (socioeconomic, class, sexuality, gender, ethnicity), as well as critical and theoretical perspectives on films from these regions. Conducted in Spanish. 
Prerequisite(s): SPN 312 or equivalent; SPN 342 recommended.

SPN 491  INDEPENDENT STUDY  
Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairperson. 
Prerequisite(s): SPN 202; permission of department chairperson.

SPN 497  SERVICE LEARNING EXPERIENCE  
Supervised service experience or project which requires the use of Spanish. Repeatable up to a total of three semester hours. 
Prerequisite(s): SPN 311 or equivalent.
School of Business Administration

(MGT) Management and Marketing

The management program offered by the management/marketing department includes a major or minor in two distinct areas: leadership and entrepreneurship. The department also offers a major or a minor in marketing.

Faculty

Dean B. McFarlin, Chairperson
NCR Professor of Global Leadership Development: Dean B. McFarlin
Professors: Bickford, King, McFarlin, Sweeney
Associate Professors: Schenk
Assistant Professors: Gove, Janney, Kiewitz, Lau, Sullivan
Lecturers: Chele, Forlani, Gentner, Miller
Adjunct Faculty: Gokasy, Denko, Destro, Dinsmore, Evans, Franks, Kairis, Kirsch, Mack, Pippenger, Wood

Sub-Categories / Concentrations / Focus Areas

Entrepreneurship
Leadership
Marketing

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 201</td>
<td>LEGAL ENVIRONMENT OF BUSINESS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survey of the legal environment in which businesses operates. Includes an overview of legal system and judicial processes and coverage of constitutional principles for U.S. legal system, ways to resolve legal disputes, forms of business organization, legal issues relevant to employment, legal responsibility of businesses to clients and customers, and liability issues. Prerequisite(s): Sophomore standing.</td>
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<tr>
<td>MGT 220</td>
<td>ENTREPRENEURSHIP SOPHOMORE EXPERIENCE I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>First of two-course sequence. Designed to immerse Entrepreneurship major into the dynamics of starting and running a micro-business. Focuses on identifying market need, researching financial viability of business venture to meet that need, and marshalling the resources (among them, financial, human, technical, and motivational) to launch the business. Course is coordinated through the Crotty Center for Entrepreneurial Leadership. Prerequisite(s): Entrepreneurship major; sophomore standing; overall 2.7 GPA. Corequisite(s): ACC 207; ECO 203; MGT 201.</td>
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</tr>
<tr>
<td>MGT 221</td>
<td>ENTREPRENEURSHIP SOPHOMORE EXPERIENCE II</td>
<td>1</td>
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<tr>
<td></td>
<td>Continuation of MGT 220. Focuses on growing and running the micro-business throughout the academic year with planned liquidation or shutdown by the end of the academic year. Course is coordinated through the Crotty Center for Entrepreneurial Leadership. Prerequisite(s): ACC 207; ECO 203; MGT 201, 220; Entrepreneurship major; overall 2.7 GPA. Corequisite(s): ACC 208; ECO 204.</td>
<td></td>
</tr>
<tr>
<td>MGT 301</td>
<td>ORGANIZATIONAL BEHAVIOR</td>
<td>3</td>
</tr>
</tbody>
</table>
Study of individual, group, and team behavior in organizations as they interact to achieve both personal and organizational goals. Topics include individual differences, interpersonal communication, leadership, decision-making, reward systems, conflict management, and work groups and teams.

**Prerequisite(s):** Junior standing.

**MGT 302** MANGRICAL SKILLS

Course focuses on knowledge, skills and abilities in oral and written communication, decision-making, and facilitation of conflict management and group/team management. Demonstrated working competencies are required to complete the course.

**Prerequisite(s):** Junior standing.

**MGT 313** NEGOTIATION

Course integrates conceptual understanding with practical application of negotiation and examines cultural and gender differences in negotiation, influence of personality traits, the negotiation process, and different ways in which to negotiate. Demonstrated knowledge, skills and abilities are part of course requirements.

**Prerequisite(s):** MGT 301; junior standing.

**MGT 314** SURVEY OF HUMAN RESOURCES

Course integrates conceptual understanding with practical application of negotiation and examines cultural and gender differences in negotiation, influence of personality traits, the negotiation process, and different ways in which to negotiate. Demonstrated knowledge, skills and abilities are part of course requirements.

**Prerequisite(s):** MGT 301; junior standing.

**MGT 318** MANAGEMENT AND SOCIETY

Study of business firms' relationship with society through examination of influence of the competitive environment, government, interest groups, and lobbyists in the public policy process. Subjects include technological changes, racism, poverty, diversity, urban issues, and environmental concerns.

**Prerequisite(s):** Junior standing.

**MGT 320** NEW VENTURE CREATION

Overview of the concepts and aspects involving creation of new business ventures, new product development, and innovation within existing companies now popularly called corporate venturing. Topics include entry strategies, creating high potential opportunities, entrepreneurial finance, business plan development, entrepreneurial marketing, the legal structures of new businesses, and government programs for assisting entrepreneurial firms. Fall sections open to Entrepreneurship majors only with overall 2.7 GPA.

**Prerequisite(s):** (ACC 200 or 208); MGT 201; junior standing.

**MGT 321** FINANCING ENTREPRENEURIAL VENTURES

Focuses on financial aspects of starting, growing, and harvesting entrepreneurial ventures. Includes assessments of various sources of capital for small and growth businesses with emphasis placed on how common financing deals are structured, common financing pitfalls, and various legal documentation used to consummate financial transactions. Same as FIN 321. Fall sections open to Entrepreneurship majors only with overall 2.7 GPA.

**Prerequisite(s):** ACC 200 or (ACC 207, 208); junior standing.

**Corequisite(s):** FIN 301 or MGT 320.

**MGT 401** ORGANIZATIONAL DESIGN, CULTURE, AND CHANGE

A course focused at the organizational level of analysis that includes design of organizations, development of organizational culture, and other issues of organizational change. Topics include processes for organizational design and change, power, and information processing.

**Prerequisite(s):** MGT 301; junior standing.

**MGT 402** LEADERSHIP AND MOTIVATION
An in-depth study of individual and group/team motivation in an organizational setting through examination of individual, organizational, and societal influences on motivation. Focus is on how leaders can understand, and then affect, motivation through a variety of mechanisms.  
**Prerequisite(s):** MGT 301; junior standing.

**MGT 403 CROSS-CULTURAL MANAGEMENT**
Study of general cross-cultural differences and development of cross-cultural frameworks in decision-making, negotiation, conflict management, communication, and general business relations. Primary emphasis is on understanding how and why cultures differ and how such differences can be managed.  
**Prerequisite(s):** MGT 301; junior standing.

**MGT 404 GROUP DYNAMICS, TEAM PROCESSES, AND DECISION MAKING**
In-depth study of group formation, team design, and diagnosis with emphasis on developing and maintaining different types of groups and teams. Course focuses on leaders' knowledge, skills and abilities to work effectively with teams and groups.  
**Prerequisite(s):** MGT 301; junior standing.

**MGT 405 EMPLOYEE TRAINING AND DEVELOPMENT**
Focuses on training and learning methods and models, career paths, and self-improvement methods within the balance of organizational, job, and individual needs. Additional emphasis on systematic development and evaluation of training programs and role of organizational leader in ensuring employee training and development.  
**Prerequisite(s):** MGT 301; junior standing.

**MGT 409 CURRENT ISSUES IN LEADERSHIP**
Selected topics that consider and analyze current problems and emerging issues in leadership and in the leader's role in promoting effective organizational change and development.  
**Prerequisite(s):** MGT 301; junior standing.

**MGT 410 SENIOR SEMINAR IN EXPERIENCING LEADERSHIP**
Focus on integration of knowledge, skills and abilities acquired in leadership major courses. Seminar combines classroom component with relevant and approved internship or consulting project to integrate the study of leadership with its practice.  
**Prerequisite(s):** MGT 401, 402; Leadership major; senior standing.

**MGT 414 MULTINATIONAL CORPORATE MANAGEMENT**
Introduction to use of strategic management in international context with examination of different strategic and tactical approaches organizations use to manage international operations.  
**Prerequisite(s):** Senior standing.

**MGT 420 ENTREPRENEURIAL MARKETING**
Study of the techniques used to profitably identify and fill customers' needs when operating with a limited budget during the early stages of a start-up or in a small to medium sized firm. Course strives to develop skills in applying basic marketing principles and high impact sales and promotion techniques in integrated manner to produce a practical, cost-effective action plan for start-ups and smaller companies. Also listed as MKT 420.  
**Prerequisite(s):** MKT 301; junior standing.

**MGT 421 SMALL BUSINESS MANAGEMENT**
Course addresses unique characteristics of small businesses (e.g., resource limitations, family participation) and grapples with ways to overcome the "liability of smallness." Coverage includes effect of macro-trends (e.g., changing technology and globalization) on small business, review of topics from functionally-oriented courses, examination of how functional models such as pricing models can be modified for small business use, and ways for small business to identify and exploit weaknesses of larger, better financed competitors.  
**Prerequisite(s):** ACC 200 or 208; MGT 201; junior standing.
MGT 422  BUSINESS PLANS FOR EMERGING FIRMS
This course explores multiple business models for launching a new venture. Business models are examined in terms of the type of product/service being offered as well as the goals of the entrepreneur, firm growth, and time to market. The benefits and costs of different types of business plans will be examined relative to the opportunities that students may wish to pursue. Students taking this course must have a potential business opportunity in mind.
Prerequisite(s): MGT 320, 321; junior standing; permission of department chairperson.

MGT 423  HUMAN RESOURCE MANAGEMENT IN THE EMERGING FIRM
This course explores issues unique to the human resource management (HRM) needs and challenges facing entrepreneurs and their firms. Emphasis is placed on how entrepreneurs can create effective HRM systems in the areas of staffing, recruitment and selection, compensation, motivations, and employee development. Care will be given to address the changes in HRM needs as the firm evolves through several transitional stages.
Prerequisite(s): MGT 301; junior standing.

MGT 424  FAMILY BUSINESS MANAGEMENT
This course explores topics relevant to entrepreneurs within the family business environment. Specific topics examined will include how family businesses emerge and evolve as well as the unique challenges often found in family business context (e.g., dealing with family conflicts, how to motivate and evaluate employees when a mix of family and non-members are involved, and planning for succession).
Prerequisite(s): MGT 320, 321; junior standing.

MGT 427  INTERNSHIP IN ENTREPRENEURSHIP
Exposes students to practicing entrepreneurs currently managing on-going entrepreneurial enterprises. Purpose of course is to develop mentor relationships with successful practicing entrepreneurs, to experience success working in entrepreneurial setting, and to gain first-hand experience about knowledge, skills, and abilities necessary to be a successful entrepreneur. Internships coordinated through the Crotty Center for Entrepreneurial Leadership. Students will submit reports throughout semester addressing questions that integrate Entrepreneurship and other business coursework with their work experience. Typically general elective credit only for ENT majors.
Prerequisite(s): MGT 320; Entrepreneurship major; junior standing; permission of Internship Coordinator; overall 2.7 GPA or higher.

MGT 429  CURRENT ISSUES IN ENTREPRENEURSHIP
In-depth examination of selected contemporary topics relevant to entrepreneurship. Subject matter may vary each semester. May be taken only once for credit toward Entrepreneurship major or minor.
Prerequisite(s): MGT 320, 321; junior standing.

MGT 430  SENIOR SEMINAR IN ENTREPRENEURSHIP
Project-based capstone learning experience for Entrepreneurship major. Course objective is to integrate prior coursework through completion of a consulting project with local entrepreneurial firm, including business plan revision, market research, feasibility testing, financial modeling and analysis, and operations analysis. Course is coordinated through the Crotty Center for Entrepreneurial Leadership.
Prerequisite(s): MGT 320, 321; Entrepreneurship major; senior standing; 2.7 overall GPA or higher.

MGT 490  MANAGING THE ENTERPRISE
Course focuses on creating understanding of how concepts and analytical tools learned in other business courses are integrated in practice to create a unified whole. Students learn how general and top managers gather and use information to influence organizational mission, goals, and strategies. Course typically relies heavily on cases and/or business simulation.
Prerequisite(s): FIN 301; MGT 301; MIS 301; MKT 301; OPS 301; senior standing.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
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<tbody>
<tr>
<td>MGT 491</td>
<td>HONORS THESIS</td>
<td>Selection, design, investigation, and completion of an independent and original research thesis under guidance of departmental faculty member.</td>
<td>University Honors Program participant; permission of department chairperson and director of Honors Program; senior standing.</td>
</tr>
<tr>
<td>MGT 492</td>
<td>HONORS THESIS</td>
<td>Selection, design, investigation, and completion of an independent and original research thesis under guidance of departmental faculty member.</td>
<td>University Honors Program participant; permission of department chairperson and director of Honors Program; senior standing.</td>
</tr>
<tr>
<td>MGT 494</td>
<td>SEMINAR IN MANAGEMENT</td>
<td>Study of selected topics or issues in contemporary managerial practice, domestic or international. May be taken more than once if topics change. Title will reflect topics covered in a particular offering.</td>
<td>Varies by topic; junior standing.</td>
</tr>
<tr>
<td>MGT 497</td>
<td>INTERNSHIP FOR GENERAL ELECTIVE CREDIT</td>
<td>Supervised work experience in partnership with sponsoring employer that is directly relevant to major or minor. Must work with internship coordinator and get approval of department chairperson or designee. May be used for general elective credit only. LDR or ENT majors only.</td>
<td>Junior standing; overall GPA of 2.7 or higher; permission of Internship Coordinator.</td>
</tr>
<tr>
<td>MGT 498</td>
<td>COOPERATIVE EDUCATION</td>
<td>Optional full-time work period off campus alternating with study period on campus. (See Chapter X; consult Cooperative Education Office for details.) Permission of chairperson or designee required. May be used for general elective credit only. LDR or ENT majors only.</td>
<td>Overall GPA of 2.7 or higher.</td>
</tr>
<tr>
<td>MGT 499</td>
<td>INDEPENDENT STUDY</td>
<td>Supervised study involving directed readings, individual research (library, field, or experimental), or projects in specialized area of management. May be taken only once. May count as general elective credit. Does not apply to requirements for Leadership or Entrepreneurship major or minor.</td>
<td>MGT 300 or 301; ENT or LDR major; senior standing; sponsorship by faculty member; permission of department chairperson.</td>
</tr>
<tr>
<td>MKT 300</td>
<td>SURVEY OF MARKETING</td>
<td>Survey of marketing for non-marketing majors. Course introduces students to market and environmental analysis, marketing strategy and link with corporate strategy, market segmentation, organizational and consumer markets, and marketing mix (product, price, promotion, distribution).</td>
<td>Non-business majors only; junior standing.</td>
</tr>
<tr>
<td>MKT 301</td>
<td>PRINCIPLES OF MARKETING</td>
<td>The general principles and practices underlying the processes of marketing. Analysis of the environmental conditions of manufacturers, wholesalers, retailers, and other marketing agencies.</td>
<td>Business majors only; junior standing.</td>
</tr>
<tr>
<td>MKT 310</td>
<td>PRINCIPLES OF SELLING</td>
<td>The nature of selling, explored through the practical application of buying motives and selling techniques. Projects and role-playing to experience the preparation, closing, and post-purchase phases of selling.</td>
<td>MKT 300 or 301.</td>
</tr>
<tr>
<td>MKT 315</td>
<td>RETAIL MARKETING</td>
<td>Survey of the development of retailing and the impact of consumer behavior, fashion, computers, and other innovations. Structural organization, location, and layout. Merchandising operations including planning of sales, purchases, stock control, markup, and expense control.</td>
<td>MKT 300 or 301.</td>
</tr>
</tbody>
</table>
SERVICES MARKETING
Basic concepts of services marketing including discussion of marketing concepts and their management implications in services organizations, the scope of ethics and social responsibility at the national and global levels, and how the external environment, both domestic and international, influences organization strategy.
Prerequisite(s): MKT 300 or 301.

MULTICULTURAL MARKETING ANALYSIS
Study of basic concepts and theories of multicultural marketing. Students acquire basic understanding of culture, awareness of cultural differences, and appreciation of importance of cultural adaptation for marketing program, especially as related to development of marketing systems.
Prerequisite(s): MKT 300 or 301.

BUSINESS-TO-BUSINESS MARKETING
Concepts and analytical procedures associated with marketing to business. Business consumer and competitor analysis, marketing information systems, marketing research, and demand forecasting. Strategy development in product, promotion, distribution, and pricing with focus on manufacturers of business products.
Prerequisite(s): MKT 300 or 301.

INTERNET AND ELECTRONIC MARKETING
Comprehensive study of the internet as a marketing channel and as an economic and social phenomenon. Emphasis is on role of internet in firm's overall marketing efforts, especially marketing mix, target markets, and external environment; principles of e-commerce; and application of course knowledge in a managerial and decision-making context.
Prerequisite(s): MKT 300 or 301.

CONSUMER BEHAVIOR
Comprehensive study of buyer decision making which offers insight into the buyer-seller relationship. Application of theories from psychology and social psychology to investigate the behavior of industrial and consumer buyers.
Prerequisite(s): MKT 300.

MARKETING CHANNELS
Study of the place element of the marketing mix. A focus on the relationships among manufacturers, wholesalers, and retailers. Channel structure and design including franchising.
Prerequisite(s): MKT 300 or 301.

SALES MANAGEMENT
The structure of the sales organization; determination of sales policies; selection, training, and motivation of salespersons; establishing sales territories and quotas.
Prerequisite(s): (MKT 300 or 301); MKT 310.

ENTREPRENEURIAL MARKETING
Study of the techniques used to profitably identify and fill customers' needs when operating within a limited budget during the early stages of a start-up or in a small to medium sized firm. Course strives to develop skills in applying basic marketing principles and high impact sales and promotion techniques in integrated manner to produce a practical, cost-effective action plan for start-ups and smaller companies. Also listed as MGT 420.
Prerequisite(s): MKT 301.

ADVERTISING
Nature and scope of advertising, social and economic aspects, role of research, creative strategy, media planning and selection, coordination with other marketing efforts.
Prerequisite(s): MKT 300 or 301.

PROMOTION MANAGEMENT
Integration course to familiarize marketing students interested in promotion and marketing communication with tools necessary for the development, implementation, and management of promotional programs. Focus on management and coordination of advertising, personal selling, publicity and public relations, sales promotion, and collateral materials.

**Prerequisite(s):** MKT 300 or 301.

**MKT 435 NEW PRODUCT DEVELOPMENT**
Investigation and analysis of the new product development process, the management of a product through its life cycle, and the importance of the price variable in the product management process.

**Prerequisite(s):** MKT 300 or 301.

**MKT 440 GLOBAL MARKETING**
Emphasis on understanding global marketing environments, developing skills of global market analysis, designing and developing appropriate marketing strategies for global markets, decision making in global marketing.

**Prerequisite(s):** MKT 300 or 301.

**MKT 445 SPECIAL TOPICS IN INTERNATIONAL MARKETING**
Study abroad program. Subject varies from time to time. May be taken more than once if topic changes.

**Prerequisite(s):** Junior standing.

**MKT 450 BUYER BEHAVIOR AND MARKET ANALYSIS**
Integration of theoretical components of buyer behavior and marketing research. Emphasis placed on how marketing managers use concepts from these bodies of knowledge to make better decisions. Topics include common processes and methods of contemporary market research, analysis of purchase decisions, market research techniques used to gather information about purchase decisions, and use of information to formulate and implement a marketing strategy.

**Prerequisite(s):** MKT 301; junior standing.

**MKT 455 MARKETING PLANNING AND STRATEGY**
Integrative course in marketing with emphasis on managerial decision making. The course is designed around a strategic marketing planning approach with a clear emphasis on how to do strategic analysis and marketing planning.

**Prerequisite(s):** ACC 207, 208; MKT 450; senior standing.

**MKT 491 HONORS THESIS**
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

**MKT 492 HONORS THESIS**
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

**MKT 494 SPECIAL TOPICS IN MARKETING**
Subject varies from time to time. May be taken more than once if topic changes.

**Prerequisite(s):** Vary by topic.

**MKT 497 INTERNSHIP FOR GENERAL ELECTIVE CREDIT**
Practical work experience associated with career development and career exploration. See internship coordinator for details. Permission of department chair or designee required.

**Prerequisite(s):** MKT major; junior standing; overall gpa of 2.7 or higher; permission of internship coordinator.

**MKT 498 COOPERATIVE EDUCATION**

Optional full-time work period off campus alternating with study period on campus. (See Chapter X; consult Cooperative Education Office for details.) Permission of chairperson or designee required. For general elective credit only.

Prerequisite(s): MKT major; overall GPA of 2.7 or higher.

MKT 499 INDEPENDENT STUDY IN MARKETING 1 - 3

Study of one or more specific aspects of the marketing process with emphasis on individual reading and research. Subject matter to be determined by the instructor on the basis of interest and need of the student. Enrollment limited. Permission of chairperson or designee required.

Prerequisite(s): MKT 301; MKT major; senior standing; permission of department chairperson.
School of Business Administration
Management Information Systems, Operations Management and Decision Sciences (Collapse Description)

The Department of Management Information Systems, Operations Management, and Decision Sciences offers courses in several quantitative and systems areas, a major and a minor in management information systems, a major and minor in operations management, and a minor in decision sciences.

Faculty
Charles Wells, Chairperson
Professor Emeritus and Distinguished Service Professor: Bohlen
Professors Emeriti: Casey, Vlahos, Young
Sherman-Standard Register Professor of MIS: Thomas Ferratt
Sherman-Standard Register Professor of Data Management: Jeffrey Hoffer
Niehaus Chair in Operations Management: John Kanet
Professors: Ahire, Dunne, Ferratt, Hoffer, Kanet, Wells
Associate Professors: Amsden, Prasad, Salisbury
Assistant Professors: Enns, Gorman
Lecturers: Davis, McManamon, Wagner

Sub-Categories / Concentrations / Focus Areas
Decision Sciences
Management Information Systems
Operations Management

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSC 210</td>
<td>STATISTICS FOR BUSINESS I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Basic concepts of statistics including descriptive statistics, probability, probability distributions, and estimation.<strong>Prerequisite(s):</strong> MTH 128, 129; BAI 103L (may be taken as a corequisite).</td>
<td></td>
</tr>
<tr>
<td>DSC 211</td>
<td>STATISTICS FOR BUSINESS II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Tests of hypotheses, analysis of variance, simple and multiple regression and correlation, and nonparametric methods. Use of computer software for statistical data analysis.<strong>Prerequisite(s):</strong> DSC 210; MTH 129.</td>
<td></td>
</tr>
<tr>
<td>DSC 313</td>
<td>ADVANCED BUSINESS STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Selected topics from advanced statistics with emphasis on business applications.<strong>Prerequisite(s):</strong> DSC 211 or equivalent.</td>
<td></td>
</tr>
<tr>
<td>DSC 375</td>
<td>MANAGEMENT SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quantitative modeling applications for managerial analysis and decision making. Develops skills to analyze and solve problems using computer-based mathematical modeling in a wide variety of business decision situations involving business functional areas such as accounting, economics, finance, human resources, marketing, management information systems, and operations management. Topics include constrained modeling techniques, simulation, and multi-criteria decision making.<strong>Prerequisite(s):</strong> DSC 211.</td>
<td></td>
</tr>
<tr>
<td>DSC 410</td>
<td>DECISION THEORY</td>
<td>3</td>
</tr>
</tbody>
</table>
Introduction to the analysis of decisions under uncertainty. Topics include structuring of the decision process, Bayesian decision theory, and multicriteria decision making.

**Prerequisite(s):** DSC 211 or equivalent.

**DSC 415 SIMULATION MODELING AND ANALYSIS**
Introduction to simulation models in support of business decision making. Emphasis on building and analyzing models in a variety of applications, including manufacturing and service systems. Study and use of a simulation language.

**Prerequisite(s):** DSC 211; DSC 375 recommended.

**DSC 435 ANALYSIS OF FACTORY SYSTEMS**
Concepts and techniques for the analysis, design, and management of factory production systems. Work-flow layout, scheduling techniques, stochastic process models, simulations, and computerized factory models

**Prerequisite(s):** DSC 375, OPS 301.

**DSC 491 HONORS THESIS**
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

**DSC 492 HONORS THESIS**
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

**DSC 494 SEMINAR IN DECISION SCIENCES**
Study of selected topics or issues in applied statistics, quantitative business analysis, and production and operations management. Topics vary from time to time. May be taken more than once if topics change. Title will reflect topics covered in a particular offering.

**DSC 497 LABORATORY WORK EXPERIENCE**
Under faculty sponsorship and in association with a participating industrial, commercial, educational, health-care, or governmental organization, practical experience in work associated with the student's minor concentration. (See internship coordinator for details.) Does not satisfy MIS elective. Permission of chairperson required.

**Prerequisite(s):** Permission of department chairperson.

**DSC 499 INDEPENDENT STUDY IN DECISION SCIENCES**
Research in conjunction with a faculty member on a subject within the general area of decision sciences. Normally open only to juniors and seniors who have attained a cumulative grade-point average of 3.0 or above. Permission of chairperson required.

**Prerequisite(s):** Permission of department chairperson.

**MIS 175 INTRODUCTION TO BUSINESS APPLICATIONS: PROBLEM SOLVING WITH VISUAL TOOLS**
Introduction to the role of information technology (IT) in business, graphical user interface design using a visual programming language. Object oriented programming using Visual Basic.net and VBA for Excel.

**Prerequisite(s):** BAI 103L or equivalent.

**MIS 300 SURVEY OF MANAGEMENT INFORMATION SYSTEMS**
Introduction to management information systems concepts, terminology, purposes, and applications for the nonbusiness student. Not open to students in the School of Business Administration or to those with credit in MIS 301. Permission of department chairperson required.

**Prerequisite(s):** (BAI 103L or HSS 226); junior standing.
Survey of theory and applications of computer-based information systems in organizations. The role of information in organizational processes, current information technology, decision support systems, and end-user computing and distributed processing systems. **Prerequisite(s):** ACC 207; (ACC 208 or 301, (may be taken as a corequisite)); (BAI 103L or HSS 226); ECO 203.

**MIS 305**  
**INTRODUCTION TO BUSINESS APPLICATIONS: PROBLEM SOLVING WITH VISUAL TOOLS**

Introduction to graphical user interface design using a visual programming language. Object oriented programming using Visual Basic.net. **Prerequisite(s):** BAI 103L or equivalent.

**MIS 325**  
**PROGRAMMING FOR BUSINESS SYSTEMS**

(Formerly MIS 225) Process of software development for business system implementation. Fundamental object-oriented programming concepts including program design, documentation, development, and testing of computer solutions of business problems using a modern programming language, such as Java. **Prerequisite(s):** MIS 305.

**MIS 360**  
**E-COMMERCE PROCESSES AND TECHNOLOGY**

Introduction to information systems technologies and techniques that enable business-to-business and business-to-consumer electronic relationships. Development of interactive websites with an introduction to client- and server-side scripting and simple database access. **Prerequisite(s):** (MIS 300 or 301); (MIS 305 or equivalent exposure to computer programming); (BAI 103L or equivalent HTML knowledge).

**MIS 366**  
**BUSINESS INTELLIGENCE**

The use of computer-based data analysis tools to support managers in problem solving and decision making. **Prerequisite(s):** DSC 211; MIS 301. **Corequisite(s):** MIS 385.

**MIS 368**  
**PRINCIPLES OF INFORMATION SECURITY MANAGEMENT**

A multidisciplinary overview of information security. This includes security policy, assets, HR, physical and logical information resource security, business continuity, and compliance. Introduction to the body of knowledge, issues relevant to creating a systematic information assurance and compliance control structure, systematic security auditing and control procedures, and how to build systematic information assurance capability into the IT function. Discussion of IS testing design is included. **Prerequisite(s):** MIS 301.

**MIS 380**  
**SYSTEMS ANALYSIS AND RE-ENGINEERING**

Concepts, methods, techniques, and tools needed to initiate a systems development project and to conduct the requirements collection, analysis, and structuring activities of systems development. Structured life cycle and alternatives. Re-engineering business processes through information systems. **Prerequisite(s):** MIS 301, 305; MIS 385 (may be taken as a corequisite).

**MIS 381**  
**PRINCIPLES OF PROJECT MANAGEMENT**

Introduction to project management concepts and ideas. Possible use of an existing team project from another course to learn principles of scheduling, team management, client management, etc., emphasizing best project management practices. **Prerequisite(s):** MIS 301.

**MIS 385**  
**SYSTEMS IMPLEMENTATION WITH DATABASE MANAGEMENT SYSTEMS**

Concepts, techniques, and tools to convert a logical system design into a working application using a relational DBMS. File and data structures, logical and physical database design, security and data integrity, file design and processing, DBMS functions, SQL, 3GL and 4GL access to databases, linkage to WWW pages, database architectures, CASE. **Prerequisite(s):** MIS 301, 305.
MIS 410 OBJECT-ORIENTED ANALYSIS AND DESIGN
Introduction to object-oriented concepts and techniques for analyzing and
designing systems. Systems development project using an object-oriented
CASE tool.
Prerequisite(s): MIS 301 or permission of instructor; MIS 305
recommended.

MIS 420 EXPERT AND KNOWLEDGE-BASED SYSTEMS
Introduction to artificial intelligence and expert and knowledge-based
systems; knowledge acquisition, implementation, and validation; advanced
topics; applications to business. Use of expert system software.
Prerequisite(s): BAI 103L or equivalent; DSC 375 recommended.

MIS 425 INFORMATION FOR TOTAL QUALITY
Theory and practice of total quality management (TQM); applications of
TQM in the information systems function, information system requirements
for TQM programs.
Prerequisite(s): MIS 301; OPS 301.

MIS 430 TELECOMMUNICATIONS AND NETWORKING
Introduction to computer-based communication networks; underlying
concepts; basic hardware components and operating systems; network
architectures and protocols; data integrity and security; message routing;
network management.
Prerequisite(s): MIS 380.

MIS 460 ADVANCED WEB DEVELOPMENT
Study of web development concepts and techniques. Design and
development of dynamic web-sites using tools such as ASP.NET and PHP.
Prerequisite(s): (MIS 300 or 301); (MIS 325 or equivalent); MIS 360, 385
strongly recommended.

MIS 461 E-BUSINESS
Models of how to conduct business electronically. Topics include different
forms of e-business, products and services provided on the Internet, how to
combine electronic business with brick-and-mortar business, and keys to
success for electronically enhanced businesses.
Prerequisite(s): MIS 301.

MIS 465 MIS PROJECT I - ANALYSIS AND DESIGN IN TEAMS
First of a two-course sequence. Team participation/management and project
management skills. Apply these skills in teams to perform an analysis and
preliminary re-design of an existing organization's information system.
Emphasis on written and oral communications, including team-prepared
reports and presentations. Offered fall semester only.
Prerequisite(s): MIS 325, 380, 381, 385.

MIS 467 DATA WAREHOUSING
Purpose, design, implementation, and effective use of data warehouses and
data warehousing technologies. Topics include data warehouse design, data
marts, data quality management, extract-transform-load process, and
business intelligence.
Prerequisite(s): MIS 301, 385.

MIS 468 INTERNET SECURITY
This course provides students with an understanding of both defensive and
offensive issues of information security. The course includes instruction on
information security theory, psychological operations, hacking, viruses, and
systems management. The course also places emphasis on security for
e-commerce and the Internet.
Prerequisite(s): MIS 301.

MIS 475 MIS PROJECT II - DESIGN AND IMPLEMENTATION IN TEAMS
Continuation of MIS 465. With its organizational client, each team carries its
project as far as possible towards final design and actual implementation.
Emphasis on written and oral communications, including team-prepared
reports and presentations. Offered winter semester only.
Prerequisite(s): MIS 465.

MIS 491  HONORS THESIS
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

MIS 492  HONORS THESIS
Selection, design, investigation, and completion of an independent original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

MIS 494  SEMINAR IN MANAGEMENT INFORMATION SYSTEMS
Study of selected technical and/or organizational issues in information systems. Topics vary from time to time. May be taken more than once if topics change. Title will reflect topics covered in a particular offering.

MIS 497  LABORATORY WORK EXPERIENCE
Under faculty sponsorship and in association with a participating industrial, commercial, educational, health-care, or governmental organization; practical experience in work associated with the student's major concentration. (See internship coordinator for details.)

Prerequisite(s): Permission of department chairperson.

MIS 498  COOPERATIVE EDUCATION
Optional full-time work period off campus alternating with study period on campus. (See Chapter X; consult Cooperative Education Office for details.)

Prerequisite(s): Permission of department chairperson.

MIS 499  INDEPENDENT STUDY
Research in conjunction with a faculty member on a subject within the general area of management information systems. Open only to juniors or seniors who have attained a cumulative grade point average of 3.0 or above.

Prerequisite(s): Permission of department chairperson.

OPS 300  INTRODUCTION TO OPERATIONS MANAGEMENT
Introduction to operations management concepts, terminology, purposes, and applications for the nonbusiness student. Not open to students in the School of Business Administration or to those with credit in OPS 301. Student must show aptitude in quantitative materials. Permission of the department chair required.

Prerequisite(s): (BA 103L or equivalent); (MTH 128, 129 or equivalent); junior standing; DSC 211 or equivalent recommended.

OPS 301  SURVEY OF OPERATIONS MANAGEMENT
Concepts and OM software-based techniques of designing, implementing, managing, and improving operations in manufacturing and service organizations, including project management, service systems design, resource allocation modeling, facility location, layout, aggregate planning, scheduling, and material requirements planning. Survey of major OM strategies such as: just-in-time production, total quality management, business process reengineering, synchronous manufacturing, enterprise resource planning, and supply chain management.

Prerequisite(s): ACC 207; (ACC 208 or 301 (may be taken as a corequisite)); (DSC 211 or equivalent); ECO 203.

OPS 350  BUSINESS PROCESS MANAGEMENT
Concepts of business process management and improvement in manufacturing/service firms. Simulation analysis of business processes through mapping and improvement evaluation using software packages such as ProcessModel. Other tools of business process analysis (operations charts, time-function mapping, work-flow analysis, etc.). Behavioral/managerial issues of business process improvement (benchmarking, incremental versus radical change, and management of change).
Prerequisite(s): DSC 211; OPS 301 (may be taken as a corequisite).

OPS 401 OPERATIONS PLANNING AND CONTROL
Concepts and techniques of operations design, on-going management and improvement. Advanced treatment topics: including total quality management, just-in-time, operations scheduling, synchronous manufacturing, and enterprise resource planning (ERP). Software-based analysis of ERP operations. Linkages between technical and managerial/organizational issues in planning and controlling operations in manufacturing and service organizations. Prerequisite(s): OPS 301; (DSC 375; OPS 350 (may be taken as corequisites)).

OPS 413 PROJECT MANAGEMENT
A broad coverage of technical and human management issues in projects. Emphasis on project planning, scheduling, tracking, and close-down. Task time and cost estimation and description. Use of computer software. Team building and other aspects of managing project teams. Prerequisite(s): OPS 301.

OPS 430 QUALITY AND JUST IN TIME MANUFACTURING
The concepts of just-in-time manufacturing, total quality system, and statistical process control. Projects, tours, and guest speakers. Prerequisite(s): OPS 301.

OPS 440 CONTINUOUS IMPROVEMENT
Theory and practice of continuous improvement especially as applied in manufacturing; comparison to the traditional operations management approach, tools and techniques, the KAISEN approach. Prerequisite(s): OPS 301.

OPS 480 SUPPLY CHAIN MANAGEMENT STRATEGIES
Concepts, analytical techniques, and solution methods for designing and managing integrated supply chains. Strategic issues of integrated supply chain design and management, including inventory management, logistics network design, distribution systems, strategic alliances, value of information for centralized decisions and risk-pooling, information technology and decision support, and international supply chain management. Prerequisite(s): DSC 375; OPS 350, 401.

OPS 491 HONORS THESIS
Selection, design, investigation, and completion of an independent and original research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

OPS 492 HONORS THESIS
Selection, design, investigation, and completion of an independent original, research thesis under the guidance of a departmental faculty member. Restricted to students in the University Honors Program with permission of the director of the program and the departmental chairperson.

OPS 494 SEMINAR IN OPERATIONS MANAGEMENT
Study of selected topics or issues in operations management. Topics vary from time to time. May be taken more than once if topics change. Title will reflect topics covered in a particular offering.

OPS 495 CAPSTONE OM PROJECT
Experiential project applying operations management concepts and techniques to practical problems with faculty supervision. Student teams address significant operational problems and opportunities in real-world service and manufacturing firms. Teams write recommendation/implementation reports and make presentations of their work. Prerequisite(s): DSC 375; OPS 350, 401; OPS 480 (may be taken as a corequisite).
OPS 497 LABORATORY WORK EXPERIENCE
1 - 6
Under faculty sponsorship and in association with a participating industrial, commercial, educational, health-care, government, or other organization, practical experience in work associated with the student's major. (See internship coordinator for details.) May satisfy OPS elective, with chairperson approval.

OPS 498 COOPERATIVE EDUCATION
1 - 6
Optional full-time work period off campus alternating with study period on campus. (See Chapter X; consult Cooperative Education Office for details). Permission of chairperson required.

OPS 499 INDEPENDENT STUDY IN OPERATIONS MANAGEMENT
1 - 6
Research in conjunction with a faculty member on a subject within the general area of operations management. Normally open only to juniors and seniors who have attained a cumulative grade-point average of 3.0 or above. Permission of chairperson required.
College of Arts and Sciences

(MTH) Mathematics (Collapse Description)

The B.A. program in mathematics provides for a breadth of mathematical study within the context of a liberal arts degree. It may be chosen as a preparation for a professional career in business, education, law or social science. It affords the student a significant distribution of courses in the humanities and social sciences so that he or she can develop a concentration in a field other than mathematics. The student's career goals will generally suggest desirable upper level mathematics electives. For example, prospective secondary mathematics teachers should participate in the licensure program and elect courses such as MTH 370, 395, and 466. Students with an interest in business, law, or social science should complete the probability and statistics sequence MTH 411-412.

The B.S. program in mathematics provides a foundation for students who wish to pursue graduate studies in any area of the mathematical sciences, to enter the actuarial profession, or to enter careers where mathematics is used in an engineering or science setting. A preparation for graduate programs in a mathematical science should include electives such as MTH 342, 404 and 471. A preparation for the actuarial examinations would include the probability and statistics sequence MTH 411-412; in addition, actuarial preparation should include a year of accounting, a year of economics, and a course in numerical methods CPS 353. To prepare for using mathematics in an applied context, a student's upper-level electives should be done in consultation with the advisor.

The basic courses MTH 168, 169, 218, 219, and 310 are offered every term and the required core courses are offered at least once a year. However, most of the other upper-level electives for the major are offered only once every two years; thus careful planning for a student's upper-level electives should be done in consultation with the advisor. In addition, the symbolic logic course, PHL 302, is a recommended general education course for all mathematics majors.

The B.S. program in applied mathematical economics provides a foundation in economics, mathematics and statistics needed for graduate study in economics or applied statistics, or for research and technical careers in business or government service. This degree is offered jointly by the Department of Mathematics and the Department of Economics and Finance in the School of Business Administration.

A minor in mathematics consists of twelve semester hours (300-400 level).

Faculty

Paul W. Eloe, Chairperson
Distinguished Service Professor: Peterson

Professors Emeriti: Back, Friel, Gantner, Kauffman, McCloskey, Mushenhein, Rice, Schleppi, R. Steinlage, Strange

Professors: Eloe, Higgins, Islam

Associate Professors: Abueida, Diestelkamp, Gorton, Mashburn, Raffoul, Shaughnessy

Assistant Professors: Driskell, Edwards, Howey, Krakowski, Liu, Parker

Lecturers: Ober, Saintignon, L. Steinlage

Majors/Minors (Collapse All)

Major/Minor Name

Bachelor of Arts with a major in Mathematics (MTA)

Mathematics

MTH 168, 169, 218, 308, 310, 330, 381, 411

MTH electives (300- and 400-level)

Sem. Hrs.

36

27

9

Liberal Studies Curriculum
Humanities and Fine Arts
- Philosophy and Religious Studies: 12
- History: 6
- Literature: English or Foreign Language: 3
- Creative and Performing Arts: 3
- Foreign Language and/or Additional Arts and/or Humanities: 3-9

Social Sciences: 12
Natural Sciences: 11

Communication Competencies: 0-9
Introduction to the University: ASI 150: 0-1
General Education courses/academic electives to total at least: 124

Bachelor of Science with a major in Applied Mathematical Economics (MTE)

APPLIED MATHEMATICAL ECONOMICS COMMITTEE
Elizabeth Gustafson (Economics), Chairperson
Eloe (Mathematics), Mashburn (Mathematics), Poitras (Economics)

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economics</strong></td>
<td></td>
</tr>
<tr>
<td>ECO 203, 204, 346, 347, 441</td>
<td>15</td>
</tr>
<tr>
<td>Economics elective (300- or 400-level)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
</tr>
<tr>
<td>MTH 168, 169, 218, 308, 310, 330, 411, 412</td>
<td>27</td>
</tr>
</tbody>
</table>

Breadth Requirement: 35
- Natural Sciences (select one grouping of courses from the following):
  - BIO 151-151L, 152-152L
  - CHM 123-123L, 124-124L
  - GEO 115-115L, 116-116L
  - PHY 206, 207, 210L, 211L
- Computer Science: 7
  - CPS 150: 4
  - CPS elective (300- or 400-level): 3
- Social and Behavioral Sciences: 6
- Humanities: 9
- Philosophy and Religious Studies: 12

Communication Competencies: 0-9
Introduction to the University: ASI 150: 0-1
General Education courses/academic electives to total at least: 120

Bachelor of Science with a major in Mathematics (MTH)

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
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</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
</tr>
<tr>
<td>MTH 168, 169, 218, 219, 308, 310, 330, 361, 430</td>
<td>30</td>
</tr>
<tr>
<td>MTH electives (300- and 400-level)</td>
<td>12</td>
</tr>
</tbody>
</table>

Breadth Requirement:
- Natural Sciences (select one grouping of courses from the following):
  - BIO 151-151L, 152-152L
  - CHM 123-123L, 124-124L
  - GEO 115-115L, 116-116L

Bachelor of Science with a major in Applied Mathematical Economics (MTE)
Two additional courses acceptable for Science majors

<table>
<thead>
<tr>
<th>Computer Science</th>
<th>3-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS (132 or 150)</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Humanities</td>
<td>9</td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
</tbody>
</table>

Communication Competencies

| Introduction to the University: ASI 150 | 0-1 |

General Education courses/academic electives to total at least 120

Departmental approval required.

Minor in Mathematics (MTH)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 102</td>
<td>FUNDAMENTALS OF MATHEMATICS</td>
<td>3</td>
</tr>
<tr>
<td>MTH 114</td>
<td>CONTEMPORARY MATHEMATICS</td>
<td>3</td>
</tr>
<tr>
<td>MTH 116</td>
<td>PRECALCULUS MATHEMATICS</td>
<td>4</td>
</tr>
<tr>
<td>MTH 128</td>
<td>FINITE MATHEMATICS</td>
<td>3</td>
</tr>
<tr>
<td>MTH 129</td>
<td>CALCULUS FOR BUSINESS</td>
<td>3</td>
</tr>
<tr>
<td>MTH 137</td>
<td>CALCULUS I WITH REVIEW</td>
<td>4</td>
</tr>
<tr>
<td>MTH 138</td>
<td>CALCULUS I WITH REVIEW</td>
<td>4</td>
</tr>
</tbody>
</table>

Introduction to the differential and integral calculus with an extensive review of algebra and trigonometry; differentiation and integration of algebraic and transcendental functions with applications.

Prerequisite(s): One year of high school algebra.

Prerequisite(s): Two years of high school algebra.

Prerequisite(s): MTH 102 or sufficient college preparatory mathematics.

Prerequisite(s): MTH 128 or sufficient college preparatory mathematics.

Prerequisite(s): Two years of high school algebra.

Prerequisite(s): MTH 137.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 148</td>
<td>INTRODUCTORY CALCULUS I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to the differential and integral</td>
<td></td>
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<tr>
<td></td>
<td>calculus; differentiation and integration of</td>
<td></td>
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<tr>
<td></td>
<td>algebraic and transcendental functions with</td>
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<td></td>
<td>applications to the life and social sciences.</td>
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<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> MTH 116 or equivalent.</td>
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</tr>
<tr>
<td>MTH 149</td>
<td>INTRODUCTORY CALCULUS II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Continuation of MTH 148. Techniques of integration and differential equations with applications to the life and social sciences, indeterminate forms, infinite sequences and series. <strong>Prerequisite(s):</strong> MTH 138 or 148.</td>
<td></td>
</tr>
<tr>
<td>MTH 168</td>
<td>ANALYTIC GEOMETRY AND CALCULUS I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the differential and integral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>calculus; differentiation and integration of</td>
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<tr>
<td></td>
<td>algebraic and transcendental functions with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>applications to science and engineering.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> MTH 116 or equivalent.</td>
<td></td>
</tr>
<tr>
<td>MTH 169</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Continuation of MTH 168. Conic sections, techniques of integration with applications to science and engineering, infinite series, indeterminate forms, Taylor's theorem. <strong>Prerequisite(s):</strong> MTH 138 or 168.</td>
<td></td>
</tr>
<tr>
<td>MTH 204</td>
<td>MATHEMATICAL CONCEPTS I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>First course of a two-semester sequence designed for pre-service teachers. Concepts necessary for an understanding of the structure of arithmetic and its algorithms, number patterns, sets, problem solving, percent, relation and proportion, use of calculators. <strong>Prerequisite(s):</strong> One year of high school algebra; one year of high school geometry.</td>
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</tr>
<tr>
<td>MTH 205</td>
<td>MATHEMATICAL CONCEPTS II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Continuation of MTH 204. Topics include probability, representing and interpreting data, the metric system, elementary geometry, geometric patterns, coordinate geometry, algebra and geometry, transformations, computer literacy. <strong>Prerequisite(s):</strong> MTH 204.</td>
<td></td>
</tr>
<tr>
<td>MTH 206</td>
<td>ALGEBRA AND CALCULUS CONCEPTS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Development of the algebra of polynomials and functions; factoring and roots; mathematical induction and the binomial theorem; arithmetic and geometric sums; introduction to limiting processes; slopes and area estimations and computations. <strong>Prerequisite(s):</strong> MTH 205.</td>
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</tr>
<tr>
<td>MTH 207</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to the concepts of statistical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>thinking for students whose majors do not</td>
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<tr>
<td></td>
<td>require calculus. Methods of presenting data,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>including graphical methods. Using data to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>make decisions and draw conclusions. Basic ideas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of drawing a sample and interpreting the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>information that it contains.</td>
<td></td>
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<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> Two years of high school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>algebra.</td>
<td></td>
</tr>
<tr>
<td>MTH 214</td>
<td>MATHEMATICAL CONCEPTS FOR MIDDLE SCHOOL</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TEACHERS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concepts necessary for an understanding of the</td>
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<tr>
<td></td>
<td>arithmetic taught in both elementary and</td>
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</tr>
<tr>
<td></td>
<td>middle grades. Includes a study of the structure</td>
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<tr>
<td></td>
<td>of arithmetic and its algorithms; problem</td>
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</tr>
<tr>
<td></td>
<td>solving; reasoning and proof; proportional</td>
<td></td>
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<tr>
<td></td>
<td>reasoning; use of computers and calculators to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>solve problems.</td>
<td></td>
</tr>
<tr>
<td>MTH 215</td>
<td>ALGEBRA, FUNCTIONS AND GRAPHS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Development of the algebra of various families</td>
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<tr>
<td></td>
<td>of functions including polynomial, exponential,</td>
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<tr>
<td></td>
<td>logarithmic, and trigonometric functions;</td>
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<tr>
<td></td>
<td>factoring and roots; interpretation of graphs;</td>
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</tr>
<tr>
<td></td>
<td>use of calculators and data collection devices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>to solve problems.</td>
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</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> MTH 214.</td>
<td></td>
</tr>
<tr>
<td>MTH 216</td>
<td>CALCULUS CONCEPTS AND APPLICATIONS</td>
<td>3</td>
</tr>
</tbody>
</table>
Develop conceptual understanding of basic calculus concepts; introduction to the notion of limit; rates of change; slopes and area computations; use of calculators and data collection devices to make predictions, estimations, and solve problems. 

**Prerequisite(s):** MTH 215 or permission of instructor.

**MTH 218**  
**ANALYTIC GEOMETRY AND CALCULUS III**  
Continuation of MTH 169. Solid analytic geometry, vectors and vector functions, multivariable calculus, partial derivatives, multiple integrals. 

**Prerequisite(s):** MTH 169.

**MTH 219**  
**APPLIED DIFFERENTIAL EQUATIONS**  
First order equations, linear equations with constant coefficients, systems of equations, the Laplace transform, numerical methods, applications. 

**Prerequisite(s):** MTH 218.

**MTH 250**  
**ADVANCED TECHNICAL MATHEMATICS**  
Appropriate analytical techniques for students of engineering technology; topics include integration by parts, multivariable calculus, complex numbers, matrices and system of linear equations, and first and second order differential equations. Applications are appropriate for the engineering technology programs (circuits, vibrations, and heat transfer). 

**Prerequisite(s):** MTH 138 or 168.

**MTH 266**  
**DISCRETE AND FINITE MATHEMATICS FOR MIDDLE SCHOOL TEACHERS**  
Introduction to topics in finite and discrete mathematics; linear programming; applications in finance; graph theory; mathematics of social choice; logic; use of computers and calculators to model and solve problems. 

**Prerequisite(s):** MTH 214 or permission of instructor.

**MTH 270**  
**GEOMETRY CONCEPTS AND APPLICATIONS**  
Introduction to the geometry of two- and three-dimensional space; patterns in geometry; measurement systems; transformations and similarity; coordinate geometry; the algebra of geometry; trigonometry; use of dynamic computer software to explore geometric concepts. 

**Prerequisite(s):** MTH 214.

**MTH 290**  
**TOPICS IN (NAMED AREA)**  
Exploration of varying topics appropriate for the needs of the pre-service training of teachers of mathematics. May be repeated as topics change. 

**Prerequisite(s):** One mathematics course beyond MTH 102; permission of department chairperson and/or instructor.

**MTH 295**  
**HISTORICAL ROOTS OF ELEMENTARY MATHEMATICS**  
Fundamental historical development of modern arithmetic, algebra, geometry, and number systems from early Egyptian, Babylonian, and Greek sources. Students may not receive credit for both this course and MTH 395. 

**Prerequisite(s):** MTH 214 or permission of instructor.

**MTH 308**  
**FOUNDATIONS AND DISCRETE MATHEMATICS**  
An introduction to proof using topics in foundational and discrete mathematics; propositional logic; number theory; sequences and recursion; set theory; relations; combinatorics; linear programming. 

**Prerequisite(s):** MTH 169, 218, (may be taken as corequisites).

**MTH 310**  
**LINEAR ALGEBRA AND MATRICES**  
Fundamental concepts of vector spaces, determinants, linear transformations, matrices, inner product spaces, and eigen-vectors. Offered each term. 

**Prerequisite(s):** (MTH 218, 308) or (MTH 218; permission of instructor). (May be taken as corequisites).

**MTH 330**  
**INTERMEDIATE ANALYSIS**  
Theoretical development of the calculus of a real-valued function of a real variable. Topics include the algebraic and topological properties of the real line, limits of sequences and functions, continuity, differentiability, and integration.
Prerequisite(s): MTH 302.

MTH 342 SET THEORY
Elementary set theory including relations, functions, indexed families, denumerable and nondenumerable sets, cardinal and ordinal arithmetic, Zorn's Lemma, the well-ordering principle and transfinite induction.
Prerequisite(s): MTH 218, 308.

MTH 343 MATHEMATICS FOR ELECTRICAL AND COMPUTER ENGINEERS
Linear algebra and matrices, complex variables, mathematical transforms and their inter-relations. Focus on mathematical theories as well as applications and an extensive use of MATLAB.
Prerequisite(s): MTH 219.

MTH 361 INTRODUCTION TO ABSTRACT ALGEBRA
Fundamental concepts of groups, rings, integral domains and fields.
Prerequisite(s): MTH 218, 308.

MTH 367 STATISTICAL METHODS I
Probability distributions including binomial, hypergeometric, Poisson, and normal. Estimation of population mean and standard deviation: Confidence intervals and tests of hypotheses using t-, Chi-square, and F-statistics. Mathematics majors enroll in MTH 411 instead of 367.
Prerequisite(s): MTH 149 or 169.

MTH 368 STATISTICAL METHODS II
Prerequisite(s): MTH 367.

MTH 370 INTRODUCTION TO HIGHER GEOMETRY
Projective, affine, and hyperbolic geometries using synthetic and/or analytic techniques.
Prerequisite(s): MTH 218, 308.

MTH 376 NUMBER THEORY
Topics include Diophantine equations, Chinese Remainder theorem, Mobius inversion formula, quadratic residues and the Law of Quadratic Reciprocity, Gaussian integers, and integral quaternions.
Prerequisite(s): MTH 218, 308.

MTH 395 DEVELOPMENT OF MATHEMATICAL IDEAS
The evolution of mathematical ideas and techniques from ancient times to the present with emphasis on the Greek era. Famous people and famous problems. Chronological outline of mathematics in each of its branches along with applications.
Prerequisite(s): MTH 218, 308.

MTH 403 BOUNDARY VALUE PROBLEMS
Prerequisite(s): MTH 219.

MTH 404 COMPLEX VARIABLES
Functions of a complex variable, conformal mapping, integration in the complex plane. Laurent series and residue theory.
Prerequisite(s): MTH 219.

MTH 411 PROBABILITY AND STATISTICS I
Mathematical probability, random variables, Bayes' Theorem, Chebyshev's Inequality, Binomial, Poisson, and Normal probability laws, moment generating functions, limit theorems, descriptive statistics, large sample statistical inference.
Prerequisite(s): MTH 218, 308.

MTH 412 PROBABILITY AND STATISTICS II
Multivariate distributions, transformations of random variables, sampling distribution theory, estimation of parameters including maximum likelihood, confidence intervals, the Neyman-Pearson lemma, tests of hypotheses, likelihood ratio tests.
Prerequisite(s): MTH 411.

MTH 413 PROBABILITY AND STATISTICS III
Statistical decision theory, partitioning of sums of squares, analysis of variance, regression on several independent variables, multiple regression approach to analysis of variance, design of experiments.
Prerequisite(s): MTH 412.

MTH 430 REAL ANALYSIS
Continuation of MTH 330. Topics include the theory of convergence of sequences and series of functions in the context of metric spaces, uniform continuity, uniform convergence, and integration.
Prerequisite(s): MTH 330.

MTH 435 ADVANCED MULTIVARIATE CALCULUS
Topics include directional derivatives, chain rule, Lagrange multipliers, Taylor's formula, the mean value theorem, inverse mapping theorem, implicit function theorem, integration, Fubini's theorem, change of variables, line integrals, Green's theorem and Stoke's theorem.
Prerequisite(s): MTH 302.

MTH 440 INTRODUCTION TO MATHEMATICAL MODELING
Introduction to the use of mathematical techniques and results in constructing and modifying models designed to solve problems encountered in everyday life. Computer simulation and limitations thereof, dimensional analysis, scaling, and approximations at various levels.
Prerequisite(s): MTH 440; permission of department chairperson.

MTH 445 SPECIAL TOPICS IN (NAMED AREA)
Lectures in specialized areas such as abstract algebra, applied mathematics, complex variables, differential forms, functional analysis, Galois theory, game theory, general topology, normed linear spaces, probability theory, real variables, topological groups. May be taken more than once.
Prerequisite(s): Permission of department chairperson.

MTH 463 INTRODUCTION TO OPERATIONS RESEARCH
Topics include linear programming and its applications, game theory, Markov chains or linear codes and their error-correcting capabilities.
Prerequisite(s): MTH 302.

MTH 465 LINEAR ALGEBRA
Vector spaces, linear transformations and matrices, determinants, inner product spaces, invariant direct-sum decomposition and the Jordan canonical form.
Prerequisite(s): MTH 302.

MTH 466 GRAPH THEORY AND COMBINATORICS
Graphs as algebraic structures; eulcerian, hamiltonian, complete, connected and planar graphs. Applications include scheduling and routing problems. Discussion of algorithms for optimal or near-optimal solutions. Combinatorial topics could include generating functions, recurrence relations, Polya's theorem and Ramsey Theory.
Prerequisite(s): MTH 302.
MTH 471  TOPOLOGY
3
Introduction to topological spaces and continuous functions including a study
of separation and countability axioms and elementary properties of metric
spaces, connected spaces, and compact spaces.
Prerequisite(s): MTH 302 or permission of instructor.

MTH 477  HONORS THESIS PROJECT
3
First of two courses leading to the selection, design, investigation, and
completion of an independent, original Honors Thesis project under the
guidance of a faculty research advisor. Restricted to students in the
University Honors Program with permission of the program director and
departmental chairperson. Students pursuing an interdisciplinary thesis topic
may register for three semester hours each in two separate disciplines in
consultation with the department chairpersons.
Prerequisite(s): Approval of University Honors Program.

MTH 478  HONORS THESIS PROJECT
3
Second of two courses leading to the selection, design, investigation, and
completion of an independent, original Honors Thesis project under the
guidance of a faculty research advisor. Restricted to students in the
University Honors Program with permission of the program director and
departmental chairperson. Students pursuing an interdisciplinary thesis topic
may register for three semester hours each in two separate disciplines in
consultation with the department chairpersons.
Prerequisite(s): Approved 477 and approval of University Honors Program.

MTH 490  READINGS IN (NAMED AREA)
1 - 3
Individual study in specialized areas carried out under the supervision of a
staff member. May be taken more than once.
Prerequisite(s): Permission of department chairperson.
School of Engineering

(MEE) Mechanical and Aerospace Engineering (Collapse Description)

Mechanical engineers apply principles of the physical sciences, mathematics, economics, and human relations to conceive, design, and analyze a wide variety of products and systems. They may also direct manufacturing, distribution, and operation. Mechanical engineers can be employed in governmental organizations and a variety of industries including automotive, aerospace, biomedical, textiles, raw materials production, and energy. Job functions range from research, development, design, analysis, production, sales, consulting, and management. Many find that a mechanical engineering education is an excellent preparation for careers in law and medicine among other professions.

The curriculum in mechanical engineering serves as a broad-based education for positions in these diverse fields or for graduate study leading to advanced degrees. The first part of the mechanical engineering curriculum provides a firm foundation in mathematics, physics, chemistry, computer-aided drawing and conceptual design, and the humanities. The second part of the curriculum provides the engineering science fundamentals and laboratory experiences necessary for testing, design, as well as continued learning in the humanities, arts, and social sciences. The final part of the curriculum emphasizes synthesis of knowledge by major design projects sponsored by regional industries. The curriculum includes sufficient elective courses to permit a concentration in aerospace or minors in several other areas, including digital systems and controls and engineering management. As well, open electives can be used to take courses in any field including language, business, and the sciences.

The overall educational experience, guided by the University of Dayton Catholic and Marist heritage, seeks to have graduates who within several years after graduation are expected to:

1. be successfully engaging in professional work experiences which may include responsibilities in design, testing, manufacturing, and/or research and development;
2. demonstrate professional and personal growth through continuing education or through programmed training within their organizations, and most importantly, on their own;
3. serve as effective team members in their professional communities, provide solid leadership in their teams for their assigned tasks, and take initiative;
4. demonstrate commitment to a career and life where ethics, integrity, and service are paramount;
5. increasingly serve as mentors to their peers.

Specifically, this means that graduates will: have the ability to apply knowledge of mathematics, science, and engineering fundamentals; have the ability to use techniques, skills and modern engineering tools necessary for engineering practice; will have the ability to design and conduct experiments, and analyze and interpret data; will have the ability to design components, systems and/or processes; will be able to independently identify, formulate and solve engineering problems; will have the ability to function effectively on engineering teams; will be able to communicate their ideas/solutions effectively to both technical and non-technical people; will have the broad education necessary to understand the social, environmental and economic impact of engineering solutions in a global context; will exhibit a commitment to ethical behavior, leadership and service within their profession; will have knowledge of and be able to think critically about contemporary issues; and will continue their personal and professional development by engaging in lifelong learning.

Faculty

Kevin P. Hallinan, Chairperson
Professors Emeriti: Chuang, Eastep, Minardi, Wurst
Professors: Ballal, Brockman, Doepker, Doyle, Eimermacher, Ervin, Hallinan, Jain, Kashani, Sargent, Schauer, Zabarnick
Associate Professors: Endres, Kissock, Murray, Petrykowski, Sidhu
Assistant Professors: Altman, Chuck, Pinnell, Turner
Adjunct Associate Professors: Burnley, Camberos, Fry, Sanders
Adjunct Assistant Professors: Doty, Price

**Majors/Minors**

**Major/Minor Name**
- Bachelor of Mechanical Engineering (MEE)

### First-Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 123</td>
<td>GENERAL CHEMISTRY</td>
<td>3</td>
</tr>
<tr>
<td>CHM 123L</td>
<td>GENERAL CHEMISTRY LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td>EGR 100</td>
<td>ENRICHMENT WORKSHOP</td>
<td>0 - 3</td>
</tr>
<tr>
<td>EGR 101</td>
<td>INTRODUCTION TO ENGINEERING DESIGN</td>
<td>2 - 3</td>
</tr>
<tr>
<td>ENG 101-102 or ENG 114 or ENG 198</td>
<td>COLLEGE COMPOSITION I, II (ENG 102 or ENG 114 or ENG 198)</td>
<td>3 - 6</td>
</tr>
<tr>
<td>HST 103 or 198</td>
<td>THE WEST AND THE WORLD</td>
<td>3</td>
</tr>
<tr>
<td>MEE 101</td>
<td>INTRODUCTION TO MECHANICAL ENGINEERING</td>
<td>1</td>
</tr>
<tr>
<td>MEE 104L</td>
<td>COMPUTER GRAPHICS I</td>
<td>1</td>
</tr>
<tr>
<td>MTH 168</td>
<td>ANALYTIC GEOMETRY AND CALCULUS I</td>
<td>4</td>
</tr>
<tr>
<td>MTH 169</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
<td>4</td>
</tr>
<tr>
<td>PHL 103</td>
<td>INTRODUCTION TO PHILOSOPHY</td>
<td>3</td>
</tr>
<tr>
<td>PHY 206</td>
<td>GENERAL PHYSICS I - MECHANICS</td>
<td>3</td>
</tr>
<tr>
<td>REL 103</td>
<td>INTRODUCTION TO RELIGION</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sophomore-Year

#### First-Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110</td>
<td>GROUP DECISION MAKING</td>
<td>1</td>
</tr>
<tr>
<td>CMM 111 or 112</td>
<td>INFORMATIVE PUBLIC SPEAKING (CMM 111)</td>
<td>1</td>
</tr>
<tr>
<td>CMM 113</td>
<td>PERSUASIVE PUBLIC SPEAKING</td>
<td>1</td>
</tr>
<tr>
<td>EGM 201</td>
<td>MECHANICS I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 218</td>
<td>ANALYTIC GEOMETRY AND CALCULUS III</td>
<td>4</td>
</tr>
<tr>
<td>PHY 207</td>
<td>GENERAL PHYSICS II - ELECTRICITY AND MAGNETISM</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education Requirement**

3

#### Second-Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Sem. Hrs.</th>
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</thead>
<tbody>
<tr>
<td>EGM 202</td>
<td>DYNAMICS</td>
<td>3</td>
</tr>
<tr>
<td>EGM 303</td>
<td>MECHANICS II</td>
<td>3</td>
</tr>
<tr>
<td>MEE 227L</td>
<td>COMPUTER GRAPHICS II</td>
<td>1</td>
</tr>
<tr>
<td>MEE 301</td>
<td>THERMODYNAMICS I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 219</td>
<td>APPLIED DIFFERENTIAL EQUATIONS</td>
<td>3</td>
</tr>
<tr>
<td>PHY 208</td>
<td>GENERAL PHYSICS III - MECHANICS OF WAVES</td>
<td>3</td>
</tr>
</tbody>
</table>

### Junior-Year

#### First-Term

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 323-323L</td>
<td>BASIC ELECTRONIC CIRCUITS (ECE 323)</td>
<td>4</td>
</tr>
<tr>
<td>MEE 308</td>
<td>FLUID MECHANICS</td>
<td>3</td>
</tr>
<tr>
<td>MEE 312-312L</td>
<td>ENGINEERING MATERIALS I (MEE 312)</td>
<td>4</td>
</tr>
<tr>
<td>MEE 314</td>
<td>COMPUTATIONAL METHODS</td>
<td>3</td>
</tr>
<tr>
<td>MEE 321</td>
<td>THEORY OF MACHINES</td>
<td>3</td>
</tr>
<tr>
<td>MEE 415</td>
<td>PROFESSIONAL DEVELOPMENT I</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Second-Term

16
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEE 101</td>
<td>INTRODUCTION TO MECHANICAL ENGINEERING</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Weekly meeting of first-semester, first-year</td>
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<tr>
<td></td>
<td>mechanical engineering students. Orientation to</td>
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<td></td>
<td>engineering problem solving and team building</td>
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<tr>
<td></td>
<td>through hands on applications.</td>
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</tr>
<tr>
<td>MEE 104L</td>
<td>COMPUTER GRAPHICS I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Fundamentals of engineering graphics and the part</td>
<td></td>
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<tr>
<td></td>
<td>that graphical communication plays in engineering.</td>
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</tr>
<tr>
<td></td>
<td>Introduction to computer aided design (CAD).</td>
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<tr>
<td>MEE 198</td>
<td>RESEARCH AND INNOVATION LABORATORY</td>
<td>1 - 6</td>
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<tr>
<td></td>
<td>Students participate in (1) selection and design,</td>
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<tr>
<td></td>
<td>(2) investigation and data collection, (3) analysis,</td>
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<tr>
<td></td>
<td>and (4) presentation of a research project.</td>
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<td></td>
<td>Research can include, but is not limited to,</td>
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<tr>
<td></td>
<td>developing an experiment, collecting and analyzing</td>
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<td></td>
<td>data, surveying and evaluating literature,</td>
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<tr>
<td></td>
<td>developing new tools and techniques including</td>
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<tr>
<td></td>
<td>software, and surveying, brainstorming, and</td>
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<tr>
<td></td>
<td>evaluating engineering solutions and engineering</td>
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<tr>
<td></td>
<td>designs. Proposals from teams of students will be</td>
<td></td>
</tr>
<tr>
<td></td>
<td>considered.</td>
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</tr>
<tr>
<td>MEE 225</td>
<td>INTRODUCTION TO FLIGHT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An introductory course designed to provide students</td>
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<tr>
<td></td>
<td>with a basic understanding of the multitude of</td>
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<tr>
<td></td>
<td>disciplines that comprise the aeronautical</td>
<td></td>
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<tr>
<td></td>
<td>engineering profession. A background and brief</td>
<td></td>
</tr>
<tr>
<td></td>
<td>history of flight are covered. Foundational</td>
<td></td>
</tr>
<tr>
<td></td>
<td>knowledge of aerodynamics, propulsion, aerostructures,</td>
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<tr>
<td></td>
<td>aircraft performance and aerospace vehicle design.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory included.</td>
<td></td>
</tr>
</tbody>
</table>
**Prerequisite(s):** PHY 206.

**MEE 227L  COMPUTER GRAPHICS II**
Advanced engineering graphics and graphical communication in engineering; introduction to project design.

**Prerequisite(s):** MEE 104L.

**MEE 298  RESEARCH AND INNOVATION LABORATORY**
Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis, and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

**MEE 301  THERMODYNAMICS I**

**Corequisite(s):** MTH 218.

**MEE 308  FLUID MECHANICS**
An introductory course in fluid mechanics. Fundamental concepts including continuity, momentum, and energy relations. Control volume analysis and differential formulations. Internal and external flows in laminar and turbulent regimes. One-dimensional compressible flows.

**Prerequisite(s):** MEE 301; MTH 219.

**MEE 312  ENGINEERING MATERIALS I**
Atomic structure, bonding, and arrangement in solids. Mechanical and physical properties of solids, phase equilibria, and processing of solids. Strengthening methods in solids, principles of material selection, and characteristics of non-ferrous alloys, polymers, ceramic composites, and construction materials.

**Corequisite(s):** EGM 303; MEE 312L.

**MEE 312L  MATERIALS LABORATORY**
Conducting mechanical and physical tests on solids including, but not limited to tension, compression, bending, hardness, and impact. Metallographic examination of surfaces. Test standards, data reduction, analysis, interpretation, and written and oral communication of test results.

**Corequisite(s):** EGM 303; MEE 312.

**MEE 314  COMPUTATIONAL METHODS**
Detailed introduction to solving engineering problems through programming in the Matlab technical computing software package. Fundamentals of algorithms, including iterative processes, arrays and logic operations. Graphing of 2D and 3D functions. Graphical user interfaces. Focus on engineering applications that utilize the mathematical techniques of linear algebra, statistics and numerical methods.

**Corequisite(s):** MTH 219.

**MEE 319  MECHANICAL VIBRATIONS**
Undamped and damped, free and forced vibrations of single degree of freedom translational and rotational systems; vibration isolation and absorption; multi-degree of freedom systems, continuous systems, transient vibration, approximate and numerical solutions.

**Prerequisite(s):** EGM 202; MTH 219.

**Corequisite(s):** EGM 303.

**MEE 321  THEORY OF MACHINES**
Applications and design of mechanisms; use of graphical and analytical techniques for the kinematic and dynamic analysis and synthesis of machines. Analysis and design of cams, gears and gear trains. Balancing of
rotating masses.

Corequisite(s): EGM 202.

MEE 341 ENGINEERING EXPERIMENTATION
3
Basic sensors and instrumentation, design of experiments, data acquisition and processing, and uncertainty and statistical analysis of data. Measurement of strain, motion, pressure, temperature, flow and sound. Measurement applications to engineering phenomena or systems. Course will utilize a mix of lecture, laboratory experiments, and demonstrations. Also a term project to provide design of experiment experience.

Corequisite(s): EGM 303; MEE 308.

MEE 344 MANUFACTURING PROCESSES
3
Casting processes including casting defects and design of castings; metal working processes such as extrusion, forging, rolling and wire drawing; sheet metal forming; welding processes; powder metallurgy and design principles for P/M parts, metal removal processes; forming and shaping plastics and composite materials; rapid prototyping. Design principles for manufacturability. Includes laboratory.

Prerequisite(s): MEE 312.

MEE 398 RESEARCH AND INNOVATION LABORATORY
1 - 6
Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis, and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

MEE 401 AERODYNAMICS
3
Fundamentals of steady, incompressible, and inviscid aerodynamic flows over wings. Emphasis on force and moment determination for air foil and finite wings.

Prerequisite(s): MEE 308.

MEE 409 AEROSPACE STRUCTURES
3
Structural properties of wing and fuselage sections. Nonsymmetrical bending of skin-stringer wing sections. Shear stresses in thin-walled and skin-stringer multiple-celled sections. Deflection by energy methods. Introduction to finite element stiffness method.

Prerequisite(s): EGM 303.

MEE 410 HEAT TRANSFER
3
Fundamentals of conduction, convection, and thermal radiation energy transfer. Conduction of heat in steady and unsteady state. Principles of boundary layer theory applicable to free and forced convection heat transfer for internal and external flows. Radiation analysis with and without convection and conduction.

Prerequisite(s): MEE 308.

MEE 410L THERMO-FLUIDS LABORATORY
1
Hands-on opportunities for students to gain knowledge of instrumentation used for temperature, flow, heat, and pressure measurement and to visualize thermo-fluids phenomena in a rich problem solving context. Phenomena to be studied include: boundary layer and separation phenomena, internal flow characteristics, hydraulics, conduction, convection, and combustion.

Corequisite(s): MEE 410.

MEE 413 PROPULSION
3
Principles of propulsive devices, aerothermodynamics, diffuser and nozzle flow, energy transfer in turbo-machinery; turbojet, turbo-fan, prop-fan engines; turbo-prop and turboshaft engines. RAM and SCRAM jet analysis and a brief introduction to related materials and air frame-propulsion interaction.

Prerequisite(s): MEE 308.

MEE 415 PROFESSIONAL DEVELOPMENT I
0
Presentations on contemporary mechanical engineering subjects by students, faculty, and engineers in active practice; student involvement in professional and service activities. Registration required of all junior and senior students not registered in MEE 416.

**MEE 416 PROFESSIONAL DEVELOPMENT I**
Presentations on contemporary mechanical engineering subjects by students, faculty, and engineers in active practice; student involvement in professional and service activities. Registration required of all students in their last term prior to graduation.

**MEE 417 INTERNAL COMBUSTION ENGINES**
Combustion and energy release processes. Applications to spark and compression ignition, thermal jet, rocket, and gas turbine engines. Emphasis on air pollution problems caused by internal combustion engines. Idealized and actual cycles studied in preparation for laboratory testing of I. C. engines.
Prerequisite(s): MEE 301 or permission of instructor.

**MEE 418 GAS DYNAMICS**
Application of the basic thermodynamic and fluid motion laws to the solution of engineering problems in fluid mechanics. Use of differential and integral equations for internal and external flow of compressible fluids with friction and heat transfer. Isentropic flow; adiabatic flow; normal and oblique shocks; Prandtl-Meyer flow; Fanno and Rayleigh line flow.
Prerequisite(s): MEE 308.

**MEE 420 HEATING AND AIR CONDITIONING**
Theory and methods of maintaining comfortable industrial and residential environments. Psychrometries; effects of solar radiation; heat transmission through solid boundaries and transparent materials; heating and cooling load calculations; sizing of equipment; energy conservation and management concepts.
Prerequisite(s): MEE 410 or permission of instructor.

**MEE 425 AEROSPACE DESIGN**
Design project in which teams of students synthesize an engineering solution to a complex aerospace related problem through the integration of mechanical and aerospace engineering principles.
Prerequisite(s): (MEE 225, 401, 409) or permission of instructor.
Corequisite(s): MEE 431L.

**MEE 427 MECHANICAL DESIGN I**
Stress and deflection analysis of machine components; theories of failure; fatigue failure of metals. Design and analysis of mechanical components such as gears, shafts, bearings and springs.
Prerequisite(s): EGM 303; MEE 321.
Corequisite(s): MEE 431L.

**MEE 428 MECHANICAL DESIGN II**
Advanced topics in stress and deflection analysis; analysis and design of mechanical elements such as gears, journal and ball bearings, belts, brakes, and clutches; principles of fracture mechanics; failure analysis; machinery construction principles. Contemporary design methods and issues associated with the product development cycle.
Prerequisite(s): MEE 427.

**MEE 431L MULTIDISCIPLINARY ENGINEERING DESIGN LABORATORY I**
Multidisciplinary team design projects applying general mechanical engineering knowledge. Product development using product realization process (PRP) including: proposal development; design specifications, conceptualization and decision analysis. Projects normally result in a final design and prototyping in a follow-on course. Projects supplemented with an introduction to mechanical components and Computer Aided Engineering (CAE) methods.
Corequisite(s): MEE 425 or 427.
MEE 432L MULTIDISCIPLINARY ENGINEERING DESIGN LAB II
One hour lecture and five hours of lab per week. Focus of the lecture is on engineering project management, including communication, collaboration, project tracking methods, cost estimating, overhead, direct labor, time value of money, depreciation and return on community based sponsors. Detailed evaluation of the Product Realization Process focusing on conceptual design, embodiment design, final design and prototyping. Analysis of the design criteria for safety, ergonomics, environment, cost and sociological impact. Periodic oral and status reports. Culminates in a comprehensive written report and oral presentation.
Prerequisite(s): MEE 425 or 427.

MEE 434 MECHATRONICS
Emphasis on the integration of sensors, micro-controllers, electromechanical actuators, and control theory in a 'smart' system for a semester long design project. Topics include: sensor signal processing, electromechanical actuator fundamentals, interfacing of sensors and actuators to micro-controllers, digital logic, and programming of micro-controllers, programmable logic controllers and programmable logic devices. Equal mix of lecture and laboratory.
Prerequisite(s): ECE 323.

MEE 435 VEHICLE PERFORMANCE ANALYSIS
Prerequisite(s): MEE 308 or permission of instructor.

MEE 438 ROBOTICS AND FLEXIBLE MANUFACTURING
Overview of industrial robots; physical configuration, operation, and programming of robots; actuators, drive mechanisms, sensors, vision systems, controls, and control methods for robots; economic considerations; and automated factory concept.
Prerequisite(s): MEE 321.

MEE 439 DYNAMIC SYSTEMS AND CONTROLS
Dynamic systems modeling with special emphasis on mechanical systems (one and two degrees of freedom). Covers both transfer function and state space modeling techniques. Analogues drawn between mechanical, electrical, fluid, and thermal physical domains. System nonlinearities and model linearization methods are discussed. Analytical solutions of linear ordinary differential equations using Laplace transformation and state space theory. Feedback control theory, including root locus and frequency response techniques.
Prerequisite(s): EGM 202; MTH 219.

MEE 440 FLIGHT VEHICLE PERFORMANCE
This course is intended to introduce the student to the flight mechanics of aerospace vehicles. Some familiarity with aircraft performance, static stability and control is assumed, but not required. We will use modern analysis methods to develop the topical details including: 1) a study of aerodynamics involved in flight vehicle motion to obtain an understanding of influence coefficients; 2) use of linear algebra to develop a rational approach to modeling aircraft dynamics; 3) an introduction to modern control theory methodology; and 4) problems and examples that illustrate the use of desktop computational tools currently available.
Prerequisite(s): (EGM 202; MEE 401, 225; MTH 219) or permission of instructor.

MEE 460 ENGINEERING ANALYSIS
Case study approach to engineering problem solving. Emphasis on breaking down problems to tractable parts, modeling physical systems and selection of solution techniques. Problems related to thermal, fluid, structural, and dynamic systems. Problems typically involve solution of ordinary and partial differential equations, Fourier analysis of periodic behavior, simulation, optimization and/or statistical analysis. Analytical and numerical solution techniques, with an emphasis on selecting the most appropriate technique and understanding the limitations of the analysis.
Prerequisite(s): ECE 323; MEE 312, 410.

MEE 471  DESIGN OF THERMAL SYSTEMS  3
This course integrates thermodynamics, heat transfer, engineering economics, and simulation and optimization techniques in a design framework. Topics include design methodology, energy analysis, heat exchanger networks, thermal-system simulation and optimization techniques.

MEE 472  DESIGN FOR ENVIRONMENT  3
Emphasis on design for environment over the life cycle of a product or process, including consideration of the mining, processing, manufacturing, use, and post-life stages. Course provides knowledge and experience in invention for the purpose of clean design, life cycle assessment strategies to estimate the environmental impact of products and processes, and cleaner manufacturing practices. Course includes a major design project.

MEE 473  RENEWABLE ENERGY SYSTEMS  3
Introduction to the impact of energy on the economy and environment. Engineering models of solar thermal and photovoltaic systems. Introduction to wind power. Fuel cells and renewable sources of hydrogen.

MEE 498  RESEARCH AND INNOVATION LABORATORY  1 - 6
Students participate in (1) selection and design, (2) investigation and data collection, (3) analysis, and (4) presentation of a research project. Research can include, but is not limited to, developing an experiment, collecting and analyzing data, surveying and evaluating literature, developing new tools and techniques including software, and surveying, brainstorming, and evaluating engineering solutions and engineering designs. Proposals from teams of students will be considered.

MEE 499  SPECIAL PROBLEMS IN MECHANICAL AND AEROSPACE ENGINEERING  1 - 6
Particular assignments to be arranged and approved by department chairperson.
College of Arts and Sciences

(MIL) Military Science, ROTC (Collapse Description)

The Department of Military Science offers the Reserve Officers Training Corps (ROTC) program on the campus, providing instruction in general military subjects applicable to all branches of the Army. The purpose of the Reserve Officers Training Corps is to develop selected college-educated men and women for positions of responsibility as officers in the active Army, the Army Reserve, and the Army National Guard.

The military science program is designed to develop a high degree of personal honor, self-reliance, and leadership and to provide the means of becoming better informed on matters of national defense. The program provides men and women who are working toward a baccalaureate degree the opportunity to become officers in the United States Army.

The four-year program is divided into a basic course (normally first and second years) and an advanced course (normally third and fourth years), and it is offered to all students for academic credit.

The basic course emphasizes practical leadership techniques and management concepts that apply equally in both military organizations and private industry. While in this phase of the program, students, other than contracted ROTC scholarship students, have no military obligation and are simply taking ROTC courses, like any other college courses, for credit. Students who receive credit for the basic course and demonstrate a potential for becoming effective officers may continue to pursue a commission by enrolling in the advanced course.

The advanced course is designed to prepare students to be Army lieutenants by including practical work in tactics, training, management, leadership techniques, and the exercise of command. Advanced course students are paid $450 (juniors) and $500 (seniors) a month during the school year. During the summer between the junior and senior years, cadets enroll in a thirty-two day Leadership Development Assessment Course (LDAC), which allows them to apply the leadership and technical training learned in the classroom. While at LDAC, students are paid half a second lieutenant's monthly salary or about $1100.

In addition to ROTC instruction, a student must attain an equal level of professional military education. Army officers, like other professionals, cannot be satisfied with a collection of knowledge found only in their academic field. In order to be prepared to become officers, students are required to complete a course in military history.

The minor in military science provides students with the opportunity to study the theory and practice of the military profession. The minor consists of twelve semester hours of upper-level courses. Students must complete MIL 301, 302, 401, and 402. Students desiring to minor in military science should notify their respective deans and the Department of Military Science.

The ROTC program is also available to students with three or two years remaining on campus, including graduate students. Special programs, such as ROTC summer Leader's Training Course (LTC), have been established to allow second-semester sophomores and juniors or seniors who will be going on to graduate school to participate in the military science program.

There is also a special program whereby veterans and JROTC students can receive advanced placement credit in Army ROTC. Veterans and students with high school JROTC training, with the approval of the chairperson of the Department of Military Science, may receive placement credit for part or all of the basic course. Each case will be judged individually so that the best interests of both the student and the military may be served.

Army ROTC scholarships are available to students. These scholarships cover four, three, and two-year periods and provide for full tuition and fees, $900 a year for books, and a tax-free subsistence allowance of $300 a month for first year cadets, $350 a
month for sophomore cadets, $450 a month during the junior year and $500 a month in
the senior year for up to ten months. Scholarships, which are highly competitive, are
awarded to those who demonstrate outstanding scholarly, athletic and leadership ability.

At Sinclair Community College, MIL 121, 122, 123 complete requirements for MIL 101
and 102 at UD; MIL 221, 222, 223 complete requirements for MIL 201 and 202.

Faculty
Lt. Col. Versalle F. Washington, Ph.D., U.S. Army, Chairperson
Professor: Washington
Assistant Professors: Loeb, Womack
Instructor: Gautreaux

Majors/Minors

Minor in Military Science, ROTC (MIL)

Sem. Hrs.

Military Science, ROTC

MIL 301, 302, 401, 402

12

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML 101</td>
<td>LEADERSHIP I</td>
<td>1 - 3</td>
</tr>
<tr>
<td></td>
<td>ROTC programs and opportunities; rappelling, leadership, communications and management skills, and rifle marksmanship. Optional field trips, field exercises, physical training, leadership laboratory and social events.</td>
<td></td>
</tr>
<tr>
<td>ML 102</td>
<td>LEADERSHIP II</td>
<td>1 - 3</td>
</tr>
<tr>
<td></td>
<td>Rifle marksmanship, fundamentals and principles of leadership, management techniques for individual, group behavior and leadership dimensions. Optional physical training, leadership laboratory, and social events.</td>
<td></td>
</tr>
<tr>
<td>ML 201</td>
<td>MAP READING AND SMALL UNIT TACTICS</td>
<td>2 - 3</td>
</tr>
<tr>
<td></td>
<td>Study of basic map reading skills, small unit tactics, movement techniques, weapons marksmanship orientation, and survival skills. Participation in leadership laboratory and two field training exercises. Optional physical training and social events.</td>
<td></td>
</tr>
<tr>
<td>ML 202</td>
<td>MILITARY LEADERSHIP</td>
<td>2 - 3</td>
</tr>
<tr>
<td></td>
<td>Interactive study of the fundamentals of military leadership, ethical decision-making, effective counseling techniques, and conflict resolution. Study of the role and branches of the US Army and the role of the commissioned, warrant, and noncommissioned officer. Optional participation in leadership laboratories, field training exercises, physical fitness training, and social events.</td>
<td></td>
</tr>
<tr>
<td>ML 301</td>
<td>LEADING SMALL ORGANIZATIONS I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the methodology, qualities, and the development of leaders through a series of practical opportunities to lead small groups, receive personal assessments, encouragement, and lead again in situations of increasing complexity. Physical training, leadership laboratory, historical field trip, social events, and field training exercises are mandatory.</td>
<td></td>
</tr>
<tr>
<td>ML 302</td>
<td>LEADING SMALL ORGANIZATIONS II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of emplacement of communications equipment and weapons system. Application of small unit tactics, land navigation-terrain association, operations orders and roles of various branches of the Army. Physical training, leadership laboratory, social events, and field training exercises are mandatory.</td>
<td></td>
</tr>
<tr>
<td>ML 401</td>
<td>LEADERSHIP MANAGEMENT AND STAFF</td>
<td>3</td>
</tr>
</tbody>
</table>
Study of military staff functions; how to conduct meetings, briefing, and training; how to conduct various types of counseling; and effective and ineffective leadership techniques. Physical training, leadership laboratory, historical field trip, social events, and field training exercises are mandatory.

ML 402 APPLIED LEADERSHIP AND MANAGEMENT
Leadership and management studies in professionalism, ethics, and military justice. Various types of military correspondence and the responsibilities of an officer. Physical training, leadership laboratory, field training exercises, and social events are mandatory.

ML 411 LIMITED WAR/LOW INTENSITY CONFLICT
This course will identify and discuss the roles and mission of the branches found within the U.S. Army as they relate to limited war and low intensity conflicts. Historical examples of leadership in limited war/low intensity conflicts are identified and discussed. Incorporates the background and experience of resident instructors and presentations by visiting service representatives.

ML 412 U.S. MILITARY TODAY
This course will identify and discuss the roles, missions, organizational structure and equipment, tactical and strategic employment, and future trends of the Armed Services. Incorporates the background and experience of resident instructors and presentations by visiting service representatives.

ML 477 HONORS THESIS PROJECT
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons. 

Prerequisite(s): Approval of University Honors Program.

ML 478 HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

Prerequisite(s): Approved 477 and approval of University Honors Program.
College of Arts and Sciences

(MUS) Music (Collapse Description)

Music is a unique form of expression and communication. A course of study provides for an aesthetic appreciation and an opportunity to translate musical concepts into a valuable and practical skill. The Department of Music of the University of Dayton provides academic coursework to foster artistic understanding and creative thinking, practical instruction to develop musical skills, and substantial laboratory and performance experience.

The Department of Music is a member of the National Association of Schools of Music, which accredits its degree programs and curricula. In addition, the music education degree program is approved by the State of Ohio and the music therapy degree program by the American Music Therapy Association.

The Department of Music has numerous performing ensembles open to all students: the University Chorale, Choral Union, Opera Workshop, Ebony Heritage Singers, and Celebration Vocal Transit; University Orchestra, Symphonic Wind Ensemble, Concert Band, "Pride of Dayton" Marching Band, Pep Band, Jazz ensembles; early music ensembles; and instrumental chamber music ensembles. The Department of Music offers five degree programs:

Bachelor of Arts with a major in Music (MUS)
Bachelor of Music with a major in Music Composition (MUC)
Bachelor of Music with a major in Performance (MUP)
Bachelor of Music with a major in Music Therapy (MUT)
Bachelor of Music with a major in Music Education (MUE)

All prospective music students must be admitted to the University of Dayton by the Office of Admission. In addition, all prospective students must (1) furnish the Department of Music with letters of recommendation from their high school music teachers and/or performance teachers and (2) successfully complete the performance audition, either in person or via tape recording. Specific information regarding audition requirements and dates is available from the department office.

The Department of Music offers a minor in music and a minor in music technology for non-music majors.

Transfer students pursuing a major in MUC, MUP, or MUT must complete at least twenty-four of the required semester hours in the Department of Music while in residency at the University of Dayton. Transfer students pursuing a music major must complete at least twelve of the required semester hours in the Department of Music while in residency.

Faculty

Donna M. Cox, Chairperson
Professors Emeriti: Benedum, Sandness
Professors: Chenoweth, Cox, Hartley, Magnuson, Snyder, Street
Associate Professors: Morris, Reynolds
Assistant Professors: Brill, Gardstrom, Jones, Liu
Artists-in-Residence: Anderson, Benjamin, Farris, McCutcheon, Wright
Lecturers: Al Hasan, Hiler, Leppla, Sink

Majors/Minors (Collapse All)

Major/Minor Name

Bachelor of Arts with a major in Music (MUS)
Music

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory and Aural Skills</td>
<td>16</td>
</tr>
<tr>
<td>MUS 111, 112, 113, 114, 211, 212, 213, 214</td>
<td></td>
</tr>
<tr>
<td>Music History and Literature</td>
<td>9</td>
</tr>
<tr>
<td>MUS 301, 302, 303</td>
<td></td>
</tr>
<tr>
<td>Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 240</td>
<td></td>
</tr>
<tr>
<td>Performance studies, including functional keyboard skills</td>
<td>12</td>
</tr>
<tr>
<td>MUS 296, 297, 298, 299, (399 or 499)</td>
<td></td>
</tr>
<tr>
<td>Ensemble</td>
<td>4</td>
</tr>
<tr>
<td>MUS (390(^1) or 491 or 492 or 493)</td>
<td></td>
</tr>
<tr>
<td>Recital attendance (seven semesters)</td>
<td></td>
</tr>
<tr>
<td>MUS 200</td>
<td></td>
</tr>
<tr>
<td>Professional Development Workshop (seven semesters)</td>
<td>12</td>
</tr>
<tr>
<td>MUS 202</td>
<td></td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

Humanities and Fine Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy and Religious Studies including:</td>
<td>3</td>
</tr>
<tr>
<td>PHL 325</td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Literature: English or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Creative and Performing Arts (including MUS or other arts)</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities</td>
<td>3-9</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics (excludes MTH 102, 204, 205)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>11</td>
</tr>
</tbody>
</table>

Communication Competencies

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the University: ASI 150</td>
<td>0-1</td>
</tr>
</tbody>
</table>

General Education courses/academic electives to total at least 124

\(^1\)Choose from any MUS 390. See course descriptions.

Bachelor of Music with a major in Music Composition (MUC)

Music

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory and Aural Skills</td>
<td>16</td>
</tr>
<tr>
<td>MUS 111, 112, 113, 114, 211, 212, 213, 214</td>
<td></td>
</tr>
<tr>
<td>Composition(^1)</td>
<td>12</td>
</tr>
<tr>
<td>MUS 121, 122, 221, 222, 321, 322, 421, 422</td>
<td></td>
</tr>
<tr>
<td>Music History and Literature</td>
<td>9</td>
</tr>
<tr>
<td>MUS 301, 302, 303</td>
<td></td>
</tr>
<tr>
<td>Score reading</td>
<td>2</td>
</tr>
<tr>
<td>MUS 314</td>
<td></td>
</tr>
<tr>
<td>Orchestration or arranging</td>
<td>4</td>
</tr>
<tr>
<td>MUS (316 or 316), 416</td>
<td></td>
</tr>
<tr>
<td>Conducting</td>
<td>4</td>
</tr>
<tr>
<td>MUS 240, (345 or 346)</td>
<td></td>
</tr>
<tr>
<td>Performance Studies(^2)</td>
<td>12</td>
</tr>
<tr>
<td>MUS 296, 297, 298, 299, (399 or 499)</td>
<td></td>
</tr>
<tr>
<td>Ensemble</td>
<td>8</td>
</tr>
<tr>
<td>MUS (491 or 492 or 493)</td>
<td></td>
</tr>
<tr>
<td>Recital attendance (seven semesters)</td>
<td></td>
</tr>
</tbody>
</table>
MUS 200
Professional Development Workshop (seven semesters)

MUS 202
Theory and/or composition electives 10
MUS electives 10

Communication Competencies 0-9

Philosophy and Religious Studies (includes PHL 325) 12

Natural Sciences 6

Mathematics (excludes MTH 102, 204, 205) 3

Social and Behavioral Sciences 6

Humanities (includes HST 103 or 198) 6

Other non-music electives 6

Introduction to the University: ASI 150 0-1

**General Education courses/academic electives to total at least 126**

1. Each composition major must present one and a half recitals of original work by the senior year.
2. Functional Keyboard Skills or equivalent is required.

Bachelor of Music with a major in Music Education (MUE)

<table>
<thead>
<tr>
<th>Music</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory and Aural Skills</td>
<td>16</td>
</tr>
<tr>
<td>MUS 111, 112, 113, 114, 211, 212, 213, 214</td>
<td></td>
</tr>
<tr>
<td>Functional keyboard skills</td>
<td>4</td>
</tr>
<tr>
<td>MUS 296, 297, 298, 299</td>
<td></td>
</tr>
<tr>
<td>Music History and Literature</td>
<td>9</td>
</tr>
<tr>
<td>MUS 301, 302, 303</td>
<td></td>
</tr>
<tr>
<td>Arranging</td>
<td>2</td>
</tr>
<tr>
<td>MUS 318</td>
<td></td>
</tr>
<tr>
<td>Introduction to music education</td>
<td>2</td>
</tr>
<tr>
<td>MUS 231</td>
<td></td>
</tr>
<tr>
<td>Performance studies on the student's principal instrument leading to a minimum of a half-recital during the junior or senior year (seven semesters)</td>
<td>14</td>
</tr>
<tr>
<td>MUS 399</td>
<td></td>
</tr>
<tr>
<td>Recital attendance (seven semesters)</td>
<td></td>
</tr>
<tr>
<td>MUS 200</td>
<td></td>
</tr>
<tr>
<td>Ensemble</td>
<td>5</td>
</tr>
<tr>
<td>General (five semesters)</td>
<td></td>
</tr>
<tr>
<td>MUS (491 or 492 or 493)</td>
<td></td>
</tr>
<tr>
<td>Professional Development Workshop (seven semesters)</td>
<td></td>
</tr>
<tr>
<td>MUS 202</td>
<td></td>
</tr>
</tbody>
</table>

**Additional requirements for band specialization**

| Music Education | 28.5 |
| MUS 195, 236, 331, 332, 335, 336, 337, 338, 339, 340, 430, 431 |
| Conducting | |
| MUS 240, 348 |
| Small Ensembles (four semesters at 0.5 sem. hrs. each) | |
| MUS 390 |

**Additional requirements for orchestra specialization**

| Music Education | 30.5 |
| | |
MUS 195, 236, 331, 332, 335, 336, 337, 338, 339, 340

Conducting
MUS 240, 346

String minor (two semesters)
MUS 399

Small Ensembles (four semesters at 0.5 sem. hrs. each)
MUS 390

Additional requirements for choral specialization

Music Education
MUS 235, 237, 238, 331, 332, 335, 338, 339, 340

Conducting
MUS 240, 345

Guitar
MUS 195, 295

Diction and literature
MUS 408

Piano or voice minor (two semesters)
MUS 399

Ensembles
MUS 390

Additional requirements for classroom specialization

Music Education
MUS 235, 237, 238, 331, 332, 335, 338, 339, 340

Conducting
MUS 240

Guitar
MUS 195, 295

Improvisation
MUS 381

Piano or voice minor (three semesters)
MUS 399

Ensembles
MUS 390

Teacher Education

EDT 110, 110L, 207, 207L, 305, 459, 479

Communication Competencies
0-9

Philosophy and Religious Studies including:
PHL 325

Natural Sciences
3

Mathematics (excludes MTH 102, 204, 205)
3

Social and Behavioral Sciences
3

History
3

HST (103 or 198)

Introduction to the University: ASI 150
0-1

General Education courses/academic electives to total at least 131.5

1 Students in the music education program are required to maintain a 2.5 cumulative grade point average, and a 2.5 cumulative average in teacher education and music courses.
Students will select one of four speciality areas (band, choral, classroom, or orchestra). Upon completion of the degree, candidates will receive a provisional multi-age license from the State of Ohio to teach classroom, instrumental, and vocal music from pre-kindergarten through senior high school.

Two semesters of this course must be completed for a total of two semester hours.

Two semesters of MUS 338 must be completed for a total of one and a half semester hours.

Choose from any one half semester hour MUS 390. See course descriptions.

One semester of MUS 338 must be completed for a total of one semester hour.

Choose from any MUS 390. See course descriptions.

Bachelor of Music with a major in Music Performance (MUP)

<table>
<thead>
<tr>
<th>Music</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory and Aural Skills</td>
<td>16</td>
</tr>
<tr>
<td>MUS 111, 112, 113, 114, 211, 212, 213, 214</td>
<td></td>
</tr>
<tr>
<td>Music History and Literature</td>
<td>9</td>
</tr>
<tr>
<td>MUS 301, 302, 303</td>
<td></td>
</tr>
<tr>
<td>Conducting and Arranging</td>
<td>4</td>
</tr>
<tr>
<td>MUS 240, 318</td>
<td></td>
</tr>
<tr>
<td>Performance Studies</td>
<td>36</td>
</tr>
<tr>
<td>Major area of specialization</td>
<td>24-32</td>
</tr>
<tr>
<td>Minor area of specialization</td>
<td>4-12</td>
</tr>
<tr>
<td>Ensemble</td>
<td>8</td>
</tr>
<tr>
<td>MUS (491 or 492 or 493)</td>
<td></td>
</tr>
<tr>
<td>Recital attendance (seven semesters)</td>
<td></td>
</tr>
<tr>
<td>MUS 200</td>
<td></td>
</tr>
<tr>
<td>Professional Development Workshop (seven semesters)</td>
<td></td>
</tr>
<tr>
<td>MUS 202</td>
<td></td>
</tr>
<tr>
<td>MUS electives</td>
<td>14</td>
</tr>
</tbody>
</table>

Communication Competencies | 0-9 |

Philosophy and Religious Studies including: | 12 |
| PHL 325 | |
| Natural Sciences | 6 |
| Mathematics (excludes MTH 102, 204, 205) | 3 |
| Social and Behavioral Sciences | 6 |
| Humanities (includes HST 103 or 198) | 6 |
| Other non-music electives | 6 |
| Introduction to the University: ASI 150 | 0-1 |

General Education courses/academic electives to total at least | 126 |

1 Performance study in major area must lead to a half junior solo recital and a full senior solo recital.

2 Must include MUS 296-299 or MUS 399.

3 Voice majors must take MUS 235 and MUS 408; piano majors must include MUS 405 and 435; instrumental majors must take a pedagogy course in their area of specialization.

4 Voice majors must include two semesters of foreign language study.

Bachelor of Music with a major in Music Therapy (MUT)

<table>
<thead>
<tr>
<th>Music</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory and Aural Skills</td>
<td>16</td>
</tr>
<tr>
<td>MUS 111, 112, 113, 114, 211, 212, 213, 214</td>
<td></td>
</tr>
<tr>
<td>Music History and Literature</td>
<td>9</td>
</tr>
</tbody>
</table>
MUS 301, 302, 303
Conducting and Arranging 4
MUS 240, 318
Performance studies on the student's principal instrument leading to a minimum of a half-recital during the junior or senior year. MUS 399
Vocal and instrumental methods, including accompanying instruments of piano and guitar
MUS 195, 295, 296, 297, 298, 299, 3381
Select one semester hour from:
MUS 237, 238, 293
Music therapy, including core courses and practica 26
MUS 280, 282, 285, 286, 287, 288, 289, 381, 382, 385, 386, 387, 388, 486
Music and dance electives 5
Ensemble 6
MUS (3902 or 491 or 492 or 493)
Recital attendance (seven semesters) MUS 200
Professional Development Workshop (seven semesters) MUS 202
Music therapy internship 2
MUS 4893
Psychology 12
PSY 101, 351, 355, 363
Psychology elective 3
Sciences including:
HSS 305
Communication Competencies 0-9
Philosophy and Religious Studies including:
PHL 325
Mathematics (excludes MTH 102, 204, 205) 3
Recommended
MTH 207
Humanities (includes HST 103 or 198) 6
Elective 3
Introduction to the University: ASI 150 0-1
General Education courses/academic electives to total at least 132

1One semester of MUS 338 must be completed for a total of one semester hour.
2Choose from any MUS 390. See course descriptions.
3This internship of 1,040 hours is taken after student completes all other course requirements. In order to be recommended for an internship, the student must earn a grade of C- or better in each music therapy course, have an overall grade point average of at least 2.00 and a grade point average of at least 2.50 in music, music therapy, and psychology coursework. Upon successful completion of the internship, the graduate is eligible to take a national certification examination to become a Music Therapist--Board Certified.

Certificate in Church Music (MCH)

<table>
<thead>
<tr>
<th>Church Music</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 1101</td>
<td>2</td>
</tr>
<tr>
<td>MUS 350</td>
<td>3</td>
</tr>
<tr>
<td>MUS 351</td>
<td>2</td>
</tr>
<tr>
<td>MUS 390</td>
<td>1</td>
</tr>
<tr>
<td>MUS 399</td>
<td>1 - 2</td>
</tr>
</tbody>
</table>
**University of Dayton - the Bulletin - Music**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 452</td>
<td>CONTEMPORARY LITURGICAL MUSIC REPERTOIRE</td>
<td>2</td>
</tr>
<tr>
<td>MUS 459</td>
<td>CHURCH MUSIC INTERNSHIP</td>
<td>2</td>
</tr>
</tbody>
</table>

Select one course from:
- MUS 240  FUNDAMENTALS OF Conducting  2
- MUS 545

**Religious Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 446</td>
<td>CHRISTIAN LITURGY</td>
<td>3</td>
</tr>
</tbody>
</table>

Select total of six semester hours of study from the following Church Music Workshops:
- MUS 318  FUNDAMENTALS OF ARRANGING  2
- MUS 461  SPECIAL TOPICS IN CHURCH MUSIC  1 - 8
- MUS 505, 506

1May substitute additional credits in performance studies or church music workshops for MUS 110.
2Or two to three semester hours of a suitable religious studies course.

**Minor in Music (MUS)**

<table>
<thead>
<tr>
<th>Sem. Hrs.</th>
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</thead>
<tbody>
<tr>
<td>22</td>
</tr>
</tbody>
</table>

Select either Track A or Track B.

**Track A:**
- MUS 115, 116, (217 or 218), 301, 302  14
- Music electives1,2  8

**Track B:**
- MUS 111, 112, 113, 114, 301, 302  14
- Music electives1,2  8

1Must include six semester hours at the 300- or 400-level.
2No more than two semester hours of ensemble (MUS 390, 491, 492, 493) will count toward the minor.

**Minor in Music Technology (MUS)**

The Department of Music offers a minor in Music Technology non-music majors. The minor emphasizes sound musicianship, combining a traditional approach to the study of music with a concentration in the theories, techniques, and technologies currently applied in all aspects of music production recording and media integration. Students will receive training in analog and digital audio recording techniques as well as MIDI, multimedia, video, and other computer applications.

<table>
<thead>
<tr>
<th>Sem. Hrs.</th>
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</thead>
<tbody>
<tr>
<td>24</td>
</tr>
</tbody>
</table>

**Music Technology**

<table>
<thead>
<tr>
<th>Music Theory (select an option)</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option A</td>
<td></td>
</tr>
<tr>
<td>MUS 115, 116, (217 or 218)</td>
<td></td>
</tr>
<tr>
<td>Option B</td>
<td></td>
</tr>
<tr>
<td>MUS 111, 112, 113, 114</td>
<td></td>
</tr>
<tr>
<td>Music Technology</td>
<td>5</td>
</tr>
<tr>
<td>MUS 223, 323</td>
<td></td>
</tr>
<tr>
<td>Applied Studies1</td>
<td>6</td>
</tr>
<tr>
<td>MUS 399, 499</td>
<td></td>
</tr>
<tr>
<td>Ensembles2</td>
<td>2</td>
</tr>
<tr>
<td>MUS 390, 391, 491, 492, 493</td>
<td></td>
</tr>
<tr>
<td>Music History and Music Literature (select one)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 301, 302, 303</td>
<td></td>
</tr>
</tbody>
</table>

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1. Take a total of six semester hours from any combination of these courses.
2. Take a total of two semester hours from any combination of these courses.
3. Choose from any MUS 390. See course descriptions.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MJS 104</td>
<td>MUSIC LITERATURE FOR THE ELEMENTARY CLASSROOM</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Study of music literature and its direct application to elementary classroom use.</td>
<td></td>
</tr>
<tr>
<td>MJS 110</td>
<td>FUNDAMENTALS OF MUSIC</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>For the student with no previous experience with theory of music. Notation of music, key and time signatures, fundamental harmonic progression, and introduction to the piano keyboard. Elementary ear training and dictation. Open to all University students.</td>
<td></td>
</tr>
<tr>
<td>MJS 111</td>
<td>THEORY OF MUSIC I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Basic vocabulary and grammar of music: fundamentals (intervals, scales, modes, keys, triads), and counterpoint studies. Assignments are done with computer notation programs, and portions of the course use web-based texts.</td>
<td></td>
</tr>
<tr>
<td>MJS 112</td>
<td>THEORY OF MUSIC II</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Basic diatonic and chromatic harmonic vocabulary studies, emphasizing both writing and analysis skills. Assignments are done with computer notation programs, and portions of the course use web-based texts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> (MUS 111 with a grade of C- or better) or permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>MJS 113</td>
<td>AURAL SKILLS I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>The hearing of musical structure is developed through active listening to representative pieces from music literature. Emphasis on formal relations, musical development and historical styles. Introduction to solfege singing and music transcription.</td>
<td></td>
</tr>
<tr>
<td>MJS 114</td>
<td>AURAL SKILLS II</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Further developing the ability to hear musical structure through transcription of intervals, melody, rhythm and harmonic patterns and short musical compositions of music in representative stylistic categories. Use of solfege singing to represent students' internalization of melodic structure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> (MUS 113 with a grade of C- or better) or permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>MJS 115</td>
<td>MUSIC IN THEORY AND PRACTICE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Music theory studies in an historical context, appropriate for non-music majors. Fundamentals of music vocabulary and music prior to 1600: origins of melody and counterpoint. Aural skills incorporated into daily classes. Open to all University students.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> At least one year of instrument/voice studies which required note-reading ability.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Corequisite(s):</strong> Current performance studies or active participation in a music ensemble which requires note-reading skills.</td>
<td></td>
</tr>
<tr>
<td>MJS 116</td>
<td>MUSIC IN THEORY AND PRACTICE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Continuation of MUS 115: music between 1600-1900, harmony and analysis. Aural skills incorporated into daily classes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> MUS 115.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Corequisite(s):</strong> Current performance studies or active participation in a music ensemble which requires note-reading skills.</td>
<td></td>
</tr>
<tr>
<td>MJS 121</td>
<td>COMPOSITION I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Supplemental explorations for majors in music composition, to accompany work in MUS 111-112. Basic notational practices and application of traditional techniques to the creative process.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> MUS 111 (may be taken as a corequisite).</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>MJS 122</td>
<td>COMPOSITION I</td>
<td>1</td>
</tr>
<tr>
<td>MJS 191</td>
<td>VOICE CLASS</td>
<td>2</td>
</tr>
<tr>
<td>MJS 195</td>
<td>BEGINNING GUITAR CLASS I</td>
<td>1</td>
</tr>
<tr>
<td>MJS 196</td>
<td>GROUP PIANO I</td>
<td>1</td>
</tr>
<tr>
<td>MJS 200</td>
<td>RECITAL ATTENDANCE</td>
<td>0</td>
</tr>
<tr>
<td>MJS 201</td>
<td>MUSIC IN CONCERT</td>
<td>3</td>
</tr>
<tr>
<td>MJS 202</td>
<td>PROFESSIONAL DEVELOPMENT WORKSHOP</td>
<td>0</td>
</tr>
<tr>
<td>MJS 203</td>
<td>SIGHTS AND SOUNDS OF MUSIC</td>
<td>3</td>
</tr>
<tr>
<td>MJS 205</td>
<td>MUSIC, INSTRUMENTS, AND TECHNOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>MJS 211</td>
<td>THEORY OF MUSIC II</td>
<td>2</td>
</tr>
<tr>
<td>MJS 212</td>
<td>THEORY OF MUSIC IV</td>
<td>2</td>
</tr>
<tr>
<td>MJS 213</td>
<td>AURAL SKILLS II</td>
<td>2</td>
</tr>
</tbody>
</table>
Explores more advanced musical hearing and transcription techniques through later harmonic, melodic and rhythmic styles. More advanced melodic, harmonic and rhythmic materials as well as the continuing use of solfege singing to represent students' internalization of melodic structure. 

**Prerequisite(s):** (MUS 114 with grade of C- or better) or permission of instructor.

**MUS 214** AURAL SKILLS IV

Late nineteenth, twentieth and twenty-first century musical structures of harmony, melody, rhythm and compositional development/form explored through listening, transcription and performance. 

**Prerequisite(s):** (MUS 213 with a grade of C- or better) or permission of instructor.

**MUS 217** LISTENING AND TRANSCRIPTION SKILLS

Skills in hearing and notating music of representative and diverse styles through use of digital recording, sequencing, and computer notation software. 

**Prerequisite(s):** (MUS 112, 114) or permission of instructor.

**MUS 218** POPULAR AND JAZZ THEORY

Skills in the composition and arranging of popular and jazz styles in music including harmonic progression, melodic forms and the structure of voices and instruments in arrangements. Emphasis on creative applications of technology on the facility of music production. Culminating project is an arrangement, produced and recorded by the student. 

**Prerequisite(s):** (MUS 111, 112) or (MUS 115, 116) or permission of instructor.

**MUS 221** COMPOSITION II

Supplemental explorations for majors in music composition, to accompany work in MUS 211-212. Style analysis and synthesis, extension of traditional techniques, and basic instrumental applications. 

**Prerequisite(s):** MUS 211 (may be taken as a corequisite).

**MUS 222** COMPOSITION II

Supplemental explorations for majors in music composition, to accompany work in MUS 211-212. Style analysis and synthesis, extension of traditional techniques, and basic instrumental applications. 

**Prerequisite(s):** MUS 212, 221, (may be taken as corequisites).

**MUS 223** INTRODUCTION TO MUSIC TECHNOLOGY

Provides students with an introduction to the notation and recording of music with a computer. Students will learn to compile and print music, record digital instruments with MIDI, and record and mix music with portable digital audio workstations. 

**Prerequisite(s):** (MUS 111, 112) or (MUS 115, 116) or permission of instructor.

**MUS 231** INTRODUCTION TO MUSIC EDUCATION

An introduction to a wide variety of pedagogical and philosophical aspects of teaching the arts. Topics will include technology, national and state standards, history, and professional organizations. 

**Prerequisite(s):** EDT 110.

**MUS 232** INTEGRATING THE ARTS

Primarily for Teacher Education majors. Development of knowledge, skills, values, and attitudes in music for integration into a classroom setting in which other classroom subjects are taught. 

**Prerequisite(s):** EDT 110.

**MUS 235** VOICE PEDAGOGY

Techniques for teaching singing. 

**Prerequisite(s):** Voice major or permission of instructor.

**MUS 236** VOICE LABORATORY


Introduction to the performance and pedagogical techniques for voice.  
**Prerequisite(s):** Instrumental music major or permission of department chairperson.

MUS 237  BRASS INSTRUMENT LABORATORY  
Introduction to the performance and pedagogical techniques for the brass instrument family.

MUS 238  WOODWIND INSTRUMENT LABORATORY  
Introduction to the performance and pedagogical techniques for the woodwind instrument family. Fee.

MUS 240  FUNDAMENTALS OF CONDUCTING  
Introductory-level course discussing basic conducting techniques, musical styles, interpretation, score study and analysis, transposition, and literature. Dual emphasis of choral and instrumental techniques.

MUS 280  MUSIC AND MOVEMENT FOR PERSONS WITH DISABILITIES  
Training in the use of music and movement for children with disabilities under the supervision of AIM (Adventures in Movement) for the Handicapped, Inc. Includes observations and practices in the field.

MUS 282  FUNCTIONAL MUSIC THERAPY SKILLS  
Introduction to melodic and percussive nonsymphonic instruments and voice with particular emphasis on developing a variety of functional clinical skills in both active and receptive music therapy techniques for children and adults.

MUS 285  INTRODUCTION TO MUSIC THERAPY  
History and development of music therapy; survey of theoretical bases and current trends for the use of music in therapy; disability areas using music therapy. Orientation in the clinical field.  
**Prerequisite(s):** PSY 101, 363.

MUS 286  MUSIC THERAPY METHODS  
Introduction to four methods of music therapy: re-creative, receptive, composition, and improvisation. Emphasis on assessment, planning, facilitation, and evaluation of music therapy experiences within each method.  
**Prerequisite(s):** MUS 285.

MUS 287  PRACTICUM IN MUSIC THERAPY I  
Supervised pre-internship field experiences with children and/or adults with special needs. One-hour weekly lab required.

MUS 288  PRACTICUM IN MUSIC THERAPY II  
Supervised pre-internship field experiences with children and/or adults with special needs. One-hour weekly lab required.

MUS 289  PRACTICUM IN MUSIC THERAPY III  
Supervised pre-internship field experiences with children and/or adults with special needs. One-hour weekly lab required.

MUS 293  ORGAN CLASS  
Introduction to the organ, including basic performance techniques, registration, beginning literature, and hymn playing. Fee.

MUS 294  HARPSCORD CLASS  
Beginning course in harpsichord performance, including basic technique, stylistic considerations, and simple maintenance and tuning of the instrument. Fee.

MUS 295  BEGINNING GUITAR CLASS II  
Note reading in first position; advanced chord work, introduction to chord solo playing, and improvisation.  
**Prerequisite(s):** MUS 195 or equivalent.

MUS 296  FUNCTIONAL KEYBOARD SKILLS I  

Instruction in development of basic performance technique, sight reading, accompanying, transposing, playing by ear, improvising, and score reading. Fee.

MUS 297 FUNCTIONAL KEYBOARD SKILLS II
Further development of techniques introduced in MUS 296. Fee. Prerequisite(s): MUS 296.

MUS 298 FUNCTIONAL KEYBOARD SKILLS III
Continuation of MUS 297 with emphasis on improvisation and harmonization techniques. Fee.

MUS 299 FUNCTIONAL KEYBOARD SKILLS IV
Continuation of MUS 298 with emphasis on advanced chord work and modulation techniques. Fee. Prerequisite(s): MUS 298.

MUS 301 MUSIC HISTORY AND LITERATURE I
A survey of Western music history and literature from the Middle Ages to the present. Important composers, masterworks of music literature, compositional styles.

MUS 302 MUSIC HISTORY AND LITERATURE II
A survey of Western music history and literature from the Middle Ages to the present. Important composers, masterworks of music literature, compositional styles.

MUS 303 INTRODUCTION TO MUSIC OF THE WORLD
A survey of music from representative cultures around the world, and its role and function in society.

MUS 304 HISTORY OF AMERICAN MUSIC
Survey of the American musical heritage emphasizing Anglo- and Afro-American folk traditions, early religious music, country music, pioneers in piano, band and concert music, and contemporary popular music. Open to all University students.

MUS 305 AFRICAN-AMERICAN SACRED MUSIC
A historical survey of African-American sacred music from its African roots to the present with an emphasis on developments in recent decades. Examines spirituals, the ring-shout, civil rights songs, the various forms of Gospel music, traditional hymnody of the African-American church, and the musical aspects of black preaching. Open to all University students.

MUS 306 HISTORY OF AMERICAN JAZZ
Survey of the literature and performance practices from 1890 to the present. Includes blues, Dixieland, ragtime, boogie-woogie, swing, bop, cool, funky, and current techniques. Open to all University students.

MUS 307 DEVELOPMENT OF AMERICAN POPULAR SONG
Survey of American popular music from the days of the colonies, the war years, the ballad opera, minstrel, vaudeville, operetta, early film music, through Tin Pan Alley to Broadway, including European influences. Open to all University students.

MUS 308 CHAMBER MUSIC AND SYMPHONY
Formal and harmonic analysis of chamber music. Formal analysis of symphonies of classic, romantic, and contemporary composers. Prerequisite(s): MUS 211, 212.

MUS 309 OPERA HISTORY AND LITERATURE
Survey of the development of the opera and its literature from its seventeenth-century beginnings to the present. Focus upon major works and composers. Open to all University students.

MUS 310 MOZART'S OPERAS
An interdisciplinary survey of Mozart's operas - German and Italian, serious and comic. Class discussions will be supplemented by extensive listening and/or viewing of recorded performances and, when possible, attendance at live performances.

MJS 311  EIGHTEENTH-CENTURY COUNTERPOINT  
Study of the contrapuntal technique of the eighteenth century, particularly in the instrumental works of J.S. Bach. Original compositions in forms of the invention and the fugue. 
Prerequisite(s): MUS 211, 212.

MJS 312  SIXTEENTH-CENTURY COUNTERPOINT  
Study of the medieval modes and the vocal polyphony of the motet and the Mass, up to and including five-part writing; original student compositions.

MJS 313  ADVANCED AURAL SKILLS  
Advanced training in dictation, solfege, and aural analysis. 
Prerequisite(s): MUS 215.

MJS 314  SCORE READING  
Training in reading music at the piano from open score. Drill in transposition, improvisation, and reading of various clefs, leading to the realization of full vocal and orchestral scores.

MJS 316  FUNDAMENTALS OF ORCHESTRATION  
Instrumentation studies of the four main orchestral families: woodwinds, brass, percussion, strings. Some work in combining families. 
Prerequisite(s): MUS 212.

MJS 318  FUNDAMENTALS OF ARRANGING  
Arranging studies for woodwinds, brass, percussion, strings, and choir. Individual examination of instruments; projects. 
Prerequisite(s): MUS 212.

MJS 321  COMPOSITION III  
Beginning explorations of original composition which utilize equally the concepts of pitch, temporal elements, timbres, and dynamics. 
Prerequisite(s): MUS 214.

MJS 322  COMPOSITION III  
Beginning explorations of original composition which utilize equally the concepts of pitch, temporal elements, timbres, and dynamics. 
Prerequisite(s): MUS 321.

MJS 323  RECORDING ARTS AND DIGITAL MEDIA  
Comprehensive overview of digital audio and digital visual media. Skills in recording, archiving, and presenting work. 
Prerequisite(s): MUS 223 or permission of instructor.

MJS 325  BEETHOVEN AND HIS ERA  
Survey of the music of Ludwig van Beethoven, including orchestral works and chamber music, opera, keyboard and sacred music; and a survey of the historical context in which Beethoven lived and worked - Europe and the Habsburg Empire of the late eighteenth and early nineteenth centuries, and especially Vienna, the Habsburg capital. Beethoven is the culmination of the High Classic style and also the first of a new generation of Romantic composers.

MJS 327  MUSIC IN FILM  
A survey of the styles, aesthetics, and techniques of film music, emphasizing the interaction of music and visual image in film. Consideration of the changes in the evolution of both film and film music, and their relationship to culture and society.

MJS 328  HISTORY OF THE AMERICAN MUSICAL
A survey of the history and literature of the American musical from its nineteenth century predecessors to the present day. The course will focus on major representative works, major composers, and other artistic innovators. Open to all University students.

MUS 331 CHORAL MUSIC METHODS
Pedagogical techniques for choral ensembles. Topics include the singing voice, the changing voice, organization, artistic development, literature, and rehearsal techniques. National Standards are emphasized as they relate to specific objectives. Current related practices in technology are incorporated in specific assignments. Field experience required.

MUS 332 INSTRUMENTAL MUSIC METHODS
Pedagogical techniques for band and orchestra. Topics include teaching and rehearsal techniques, organization, assessment, learning theories, philosophy, literature, and programming. National Standards are emphasized as they relate to specific objectives. Current related practices in technology are incorporated in specific assignments. Field experience required.

MUS 335 CLASSROOM MUSIC METHODS
Pedagogical techniques for classroom music grades preK-8. Topics include the pedagogical methods of Orff, Kodaly, Suzuki, and Dalcroze; lesson-plan design, implementation, and assessment. Special emphasis on the exceptional learner. National Standards are emphasized as they relate to specific objectives. Current related practices in technology are incorporated in specific assignments. Field experience required.

MUS 336 WOODWIND PEDAGOGY
Course in woodwind pedagogy offered in two semester-long sections: (1) pedagogical techniques for clarinet and flute; (2) pedagogical techniques for saxophone, oboe, and bassoon. Repeatable up to two semester hours. Fee.

MUS 337 BRASS PEDAGOGY
Course in brass pedagogy offered in two semester-long sections (1) pedagogical techniques for trumpet and horn; (2) pedagogical techniques for trombone, euphonium, and tuba. Repeatable up to two semester hours. Fee.

MUS 338 PERCUSSION PEDAGOGY
Course in percussion pedagogy offered in two semester-long sections: (1) Pedagogical techniques for the percussion instruments; (2) performance study on snare drum, mallets and timpani; teaching techniques for accessory instruments; minor repairs: method book analysis. Repeatable up to one and a half semester hours. Fee.

MUS 339 STRING PEDAGOGY
Pedagogical techniques for the string instruments. Separate sections for upper strings and lower strings. Each section is a full-term course. Fee.

MUS 340 MUSIC EDUCATION FOR STUDENTS WITH SPECIAL NEEDS
Introduction to issues affecting music education with students who have physical, cognitive, emotional, and sensory challenges that affect the learning process. Specific musical characteristics and needs of special learners will be presented along with methods and strategies for teaching. Information and guidelines regarding regulatory issues related to music education will be addressed. Field experience required.
Prerequisite(s): MUS 231.

MUS 345 CHORAL CONDUCTING
Continuation of techniques introduced in MUS 240, dealing specifically with techniques for choral ensembles.
Prerequisite(s): MUS 240.

MUS 346 INSTRUMENTAL CONDUCTING
Continuation of techniques introduced in MUS 240, dealing specifically with techniques for band and orchestra.
Prerequisite(s): MUS 240.
MJS 350  SACRED MUSIC HISTORY
A survey of the development of Christian Music and its function in worship. The focus will be on historical styles, including both their impact on and their application within liturgical settings, as well as on the religious reflections engendered by specific works.

MJS 351  CHURCH MUSIC ADMINISTRATION
Examination of the process, organization, administration, planning, and presentation of church music in various Christian traditions. Attention is given to concepts of worship planning, the organization of a comprehensive music program, program development and the relationship between the music ministry and various other church entities.

MJS 360  SPECIAL TOPICS IN MUSIC
Studies in specialized areas of music. May be repeated as topics change, up to six semester hours. **Prerequisite(s):** Permission of instructor.

MJS 381  CLINICAL AND EDUCATIONAL MUSIC IMPROVISATION I
Music improvisation techniques and procedures using piano, percussion, voice, guitar, and student's major instrument. Emphasis on the acquisition of clinical and educational music improvisational skills to be applied in the medical, rehabilitation, clinical and/or school music education setting. **Prerequisite(s):** MUS 112, 114, 297.

MJS 382  CLINICAL AND EDUCATIONAL MUSIC IMPROVISATION II
Intermediate skill development in clinical and educational music improvisation. Emphasis on assessment, implementation, and evaluation of individual, dyadic, and group improvisatory experiences. Acquisition of expressive movement repertoire to improvised music. **Prerequisite(s):** MUS 381.

MJS 385  MUSIC THERAPY PRINCIPLES
Principles and processes underlying the applications of music in therapy, including philosophical approaches, assessment procedures, goals and objectives, evaluation and documentation techniques, and professional ethics and standards of clinical practice.

MJS 386  MUSIC AND PSYCHOTHERAPY
Overview of concepts, methods, and materials in the clinical practice of various forms of music psychotherapy. Exploration of the role and function of music within other therapeutic approaches (e.g., cognitive, humanistic, etc.). Identification of factors and issues affecting the helping process.

MJS 387  PRACTICUM IN MUSIC THERAPY IV
Supervised pre-internship experiences with children and/or adults with special needs. One-hour weekly lab required. **Corequisite(s):** MUS 385.

MJS 388  PRACTICUM IN MUSIC THERAPY V
Supervised pre-internship experiences with children and/or adults with special needs. One-hour weekly lab required. **Corequisite(s):** MUS 386.

MJS 390  BAROQUE ENSEMBLE
Audition required.

MJS 390  BRASS ENSEMBLE
Study of repertoire for small brass ensembles including brass quintet, horn ensemble, and others. Audition required.

MJS 390  CLASSICAL GUITAR ENSEMBLE

MJS 390  HANDS IN HARMONY
A sign-singing ensemble.
MUS 390 INDOOR MARCHING PERCUSSION ENSEMBLE 0.5
Study of marching percussion instruments (snare, tenors, melodic bass drums, cymbals, electric bass, electronic keyboards, and "pit" percussion). Preparation of a full indoor show, with music, drill, choreography, and staging. Experience necessary for snare drum, tenor sections.Appearances at area exhibitions and competitions. Winter semester only. Audition required.

MUS 390 JAZZ COMBO 0.5
Small ensemble study of works by major American jazz composers. Emphasis on group and individual improvisation. Audition required.

MUS 390 JAZZ GUITAR ENSEMBLE 0.5

MUS 390 OPERA WORKSHOP 0.5
Performance techniques for the singer-actor through the study and performance of music from operatic literature. Improvisational exercises are incorporated. Audition required.

MUS 390 PERCUSSION ENSEMBLE 0.5
Study and performance of concert repertoire for all combinations of percussion instruments, from duets to full percussion ensembles, with occasional piano or string bass accompaniment. Open to all majors and non-majors; experience with preferred but not required (on one or more of the following: snare drum, tympani, drum set, keyboard percussion, world and ethnic percussion, small accessory instruments.) Audition required.

MUS 390 PIANO ENSEMBLE 0.5
Audition required.

MUS 390 STRING ENSEMBLE 0.5
Audition required.

MUS 390 WOODWIND ENSEMBLE 0.5
A combination of woodwind instruments to include flute choir, clarinet choir, saxophone choir, woodwind quintet, and others.

MUS 390 CELEBRATION VOCAL TRANSIT 1
Students will study performance practices associated with American popular music forms (including pop, soul, jazz, gospel, musical theatre) with particular attention paid to improvisation in the various forms. Students will also learn microphone technique and basic use of PA systems. The semester culminates in a performance of solos, duets, and small ensemble selections.

MUS 390 CHORAL UNION 1
Mixed voice ensembles performing music from all style periods in regular concert appearances. Open to all University students without audition.

MUS 390 DAYTON JAZZ ENSEMBLE 1
Ensemble specializes in the interpretation and performance of traditional and contemporary big band jazz, including the art of improvisation. Audition required.

MUS 390 EBONY HERITAGE SINGERS 1
Ensemble specializing in the sacred music of African-Americans with particular emphasis on contemporary gospel music and improvisation. Open to the entire University community regardless of ethnic background or religious affiliation. No audition required.

MUS 390 LITURGICAL MUSIC LAB ENSEMBLE 1
Ensemble specializes in the performance of church music repertoire including contemporary Christian, gospel music, worship and praise, and traditional sacred choral literature. No audition required.
MUS 390 MARCHING BAND
Plays at all home and some away football games. Membership includes winds, percussion, twirlers, and Flyerettes. Concentrates on quality sound, offering a wide variety of musical styles. Combines show and corps style elements in presentations. No auditions for winds or percussion. Open to all University students.

MUS 390 PEP BAND
Membership includes winds and percussion only. Performs at all home men's basketball games and some away games. Open to all University students. Preference given to marching band members. Audition required.

MUS 390 UNIVERSITY CONCERT BAND
Meeting winter semester only, University Concert Band is a non-auditioned ensemble and performs two on-campus concerts. A wide variety of repertoire is performed, including marches, show tunes, concert band standards, contemporary band literature, and solo accompaniments.

MUS 395 SPECIAL TOPICS IN GUITAR
A repeatable guitar class with different topics each term, such as accompaniment, blues, jazz, classical, bluegrass, etc. 
Prerequisite(s): MUS 295 or permission of instructor.

MUS 398 INSTRUMENTAL JAZZ IMPROVISATION
Individualized instruction in instrumental jazz improvisation. Study of jazz theory, aural development, stylistic considerations, and repertoire. 
Prerequisite(s): Participation in Jazz Ensemble and/or Jazz Combo.

MUS 399 PERFORMANCE STUDIES
Private instruction (one thirty to forty-five minute lesson each week) in piano, voice, organ, violin, viola, cello, bass, flute, oboe, clarinet, bassoon, saxophone, trumpet-cornet, French horn, trombone, baritone, tuba, percussion, harp, harpsichord, classical and pick-style guitar, and jazz lessons in piano, guitar, bass, drums, brass, and woodwinds. Fee. 
Prerequisite(s): Permission of instructor.

MUS 401 MEDIEVAL AND RENAISSANCE MUSIC
The development of music from circa 400 to 1600, including plainchant, early polyphony, Ars Nova, and Renaissance music; the relationship of music to other arts and to its historical context. Open to all University students.

MUS 402 BAROQUE MUSIC
Literature and performing practices from 1600 to 1750; the relationship of music to social and cultural movements. Open to all University students.

MUS 403 CLASSIC AND ROMANTIC MUSIC
Literature and performing practices from 1750 to 1900; the relationship of music to social and cultural movements. Open to all University students.

MUS 404 TWENTIETH-CENTURY MUSIC
A study of twentieth-century music, its styles, and its cultural contexts, including post-romantic, impressionistic, neo-classic, and avant-garde. Open to all University students.

MUS 405 PIANO LITERATURE
Comprehensive survey of literature for the piano. Required of piano performance majors.

MUS 406 DICTION AND LITERATURE FOR SINGERS
A course in foreign language diction with an associated survey of significant and representative works from the vocal solo repertoire. Course alternates its content: German and English; and French and Italian. Course may be repeated as content changes. 
Prerequisite(s): MUS 399 or 499.

MUS 413 STYLE AND DESIGN - ANALYSIS
Exploration of appropriate analytical techniques as applied to Western music from the Renaissance to the present.

**Prerequisite(s):** MUS 212.

**MUS 414** STRATEGY AND DESIGN - SYNTHESIS

Exploration and application of various musical styles as demonstrated by original compositions patterned after selected historic models.

**Prerequisite(s):** MUS 413.

**MUS 416** ADVANCED ORCHESTRATION

Continuation of MUS 316. Intensive instrumentation studies and detailed analysis of orchestral work.

**Prerequisite(s):** MUS 316.

**MUS 418** RESEARCH IN MUSIC THEORY

Practical experience in analysis for music composition majors.

**Prerequisite(s):** Senior standing in music.

**MUS 419** RESEARCH IN MUSIC THEORY

Practical experience in analysis for music composition majors.

**Prerequisite(s):** Senior standing in music.

**MUS 421** COMPOSITION IV

Advanced work in musical composition: writing multi-movement forms of both vocal and instrumental music.

**Prerequisite(s):** MUS 321, 322.

**MUS 422** COMPOSITION IV

Advanced work in musical composition: writing multi-movement forms of both vocal and instrumental music.

**Prerequisite(s):** MUS 321, 322.

**MUS 423** COMPOSITION FOR LARGE ENSEMBLES

Preparation and execution of an extended work for large instrumental or vocal ensemble. All aspects of score and part preparation, notation, orchestration, correction, rehearsal, and performance will be considered.

**MUS 424** ADVANCED NOTATIONAL TECHNIQUES

Study of special problems in contemporary notation and calligraphy. Work will be done through analysis of twentieth-century techniques and creative solutions to individual problems.

**MUS 425** ELECTRONIC MUSIC COMPOSITION

Study of musical electronic techniques, ranging from tape recorders and musique concrete through synthesizer and computer-generated and organized sound.

**MUS 426** IMPROVISATIONAL MUSIC COMPOSITION

Discussion, study, and performance of improvisational musical techniques, including historical overview of classical extemporization, stream of consciousness, jazz, and aleatory and indeterminism.

**MUS 430** JAZZ PEDAGOGY

Methods and materials for the organization and teaching of jazz performance classes. Topics include teaching improvisation, the rhythm section, and repertoire for the school jazz band. Field experience required.

**Corequisite(s):** Participation in the jazz program.

**MUS 431** MARCHING BAND PEDAGOGY

Methods and materials for the organization and teaching of the high school marching band. Topics include teaching and rehearsal techniques, drill design, and philosophy. Field experience required.

**Corequisite(s):** Participation in the marching band.

**MUS 435** PIANO PEDAGOGY
Systematic preparation for the development of piano technique and tone; survey and study of graded teaching material of grades I and II.  
**Prerequisite(s):** Four terms of piano study or equivalent.

**MUS 440  ADVANCED INSTRUMENTAL CONDUCTING**  
Individualized instruction dealing with advanced analysis, interpretation, aural skills, repertoire study, and conducting.  
**Prerequisite(s):** MUS 346.

**MUS 452  CONTEMPORARY LITURGICAL MUSIC REPERTOIRE**  
Examination of ways in which contemporary musical resources are utilized in the worship of Christian churches. Choral, congregational, cantoral, and instrumental material will be considered in the context of both the liturgical seasons and specific services. REL 446 recommended.

**MUS 459  CHURCH MUSIC INTERNSHIP**  
Minimum of one semester's supervised service as organist and/or choral director in an approved parish setting.  
**Prerequisite(s):** Completion of half of certificate requirements; permission of department chairperson.

**MUS 460  SPECIAL STUDIES IN MUSIC**  
Studies in specialized areas of music, including music therapy and music education. May be repeated as topics change, up to nine semester hours.  
**Prerequisite(s):** Senior standing in music or permission of instructor.

**MUS 461  SPECIAL TOPICS IN CHURCH MUSIC**  
Studies in specialized areas of music, including music therapy and music education. May be repeated as topics change, up to eight semester hours.  
**Prerequisite(s):** Senior standing in music or permission of instructor.

**MUS 477  HONORS THESIS PROJECT**  
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.  
**Prerequisite(s):** Approval of University Honors Program.

**MUS 478  HONORS THESIS PROJECT**  
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.  
**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**MUS 486  RESEARCH IN MUSIC THERAPY**  
Introduction to research methods; review of literature on experimental studies. Research project.

**MUS 489  MUSIC THERAPY INTERNSHIP**  
Minimum of 1040 hours supervised clinical training through resident internship in an AMTA-approved program. This requirement precedes the granting of the music therapy degree.  
**Prerequisite(s):** Senior standing in music therapy; permission of department chairperson.

**MUS 491  UNIVERSITY ORCHESTRA**  
Performing ensemble of string, wind, brass, and percussion players; preparing literature for orchestra and chamber orchestra. Open to all University community members by audition.
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 492</td>
<td>SYMPHONIC WIND ENSEMBLE&lt;br&gt;Select band that performs the finest in wind literature. Presents regular concerts during fall and winter terms. Auditions required.</td>
</tr>
<tr>
<td>MUS 493</td>
<td>UNIVERSITY CHORALE&lt;br&gt;Mixed vocal ensemble performing music from all style periods in regular concert appearances. Open to all University students. Auditions required.</td>
</tr>
<tr>
<td>MUS 499</td>
<td>PERFORMANCE STUDIES&lt;br&gt;Private instruction (one-hour lessons weekly) in the same subjects as MUS 399. Fee.&lt;br&gt;&lt;strong&gt;Prerequisite(s):&lt;/strong&gt; Permission of instructor.</td>
</tr>
</tbody>
</table>
### College of Arts and Sciences

#### (PHL) Philosophy (Collapse Description)

The objective of the philosophy major program is to provide students with the opportunity to understand contemporary philosophy in view of the history of philosophy. Students majoring in philosophy must successfully complete a minimum of thirty-seven semester hours. The philosophy major program is also offered in India in conjunction with the Marianists. Consult the chairperson of the department for further information.

A minor in philosophy consists of eighteen semester hours.

#### Faculty

- William M. Richards, Chairperson
- Professors Emeriti: Kunkel, Monasterio, Quinn, Rhodes, Ulrich, Zembaty
- Professors: Benson, Fischer, Fouke, Inglis, Johnson, Kebede, Tillett
- Associate Professors: DesAutels, Mosser, Payne, Richards
- Assistant Professors: Gabbe, Poe, Whisnant
- Visiting Assistant Professor: Slade
- Lecturers: Lockwood, Marvin, Pratt

#### Majors/Minors (Collapse All)

**Bachelor of Arts with a major in Philosophy (PHL)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>PHL 103</td>
<td>3</td>
</tr>
<tr>
<td>PHL 240</td>
<td>3</td>
</tr>
<tr>
<td>PHL 302</td>
<td>3</td>
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<tr>
<td>PHL 350</td>
<td>3</td>
</tr>
<tr>
<td>PHL 351*</td>
<td>3</td>
</tr>
<tr>
<td>PHL 353*</td>
<td>3</td>
</tr>
<tr>
<td>PHL 354</td>
<td>3</td>
</tr>
<tr>
<td>Additional Humanities and Fine Arts</td>
<td>9</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>9</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Literature: English or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language and/or Additional Arts and/or Humanities (excludes PHL courses)</td>
<td>3-9</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics (excludes MTH 102, 204, 205)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>11</td>
</tr>
<tr>
<td>Communication Competencies</td>
<td>0-9</td>
</tr>
<tr>
<td>Introduction to the University: ASI 150</td>
<td>0-1</td>
</tr>
<tr>
<td>General Education courses/academic electives to total at least</td>
<td>124</td>
</tr>
</tbody>
</table>

*Courses in logic and the history of philosophy are prerequisites for the 400-level seminars.
### Philosophy

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL 103</td>
<td>INTRODUCTION TO PHILOSOPHY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to philosophical reflection and study of some central philosophical questions in the Western intellectual tradition, including questions of ethics, human knowledge, and metaphysics. Readings from major figures in the history of philosophy such as Plato, Aristotle, Augustine, Aquinas, Descartes, Hume, and Kant.</td>
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</tr>
<tr>
<td>PHL 201</td>
<td>PRACTICAL LOGIC</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to the principles of correct reasoning; techniques for the evaluation of arguments; common fallacies in argumentation; applications to current issues in ethics and other areas.</td>
<td></td>
</tr>
<tr>
<td>PHL 240</td>
<td>RESEARCH METHODOLOGIES AND TECHNOLOGIES</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Development of research skills appropriate for the major. Students submit papers carefully selected from written work required for major classes. Required for all Philosophy majors. <strong>Prerequisite(s):</strong> (ASI 111, 112) or PHL 103.</td>
<td></td>
</tr>
<tr>
<td>PHL 302</td>
<td>SYMBOLIC LOGIC</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concentrated study of the valid forms of deductive argument and proof in propositional logic and in predicate logic; study of formal systems and of logic and language. <strong>Prerequisite(s):</strong> (ASI 111, 112) or PHL 103.</td>
<td></td>
</tr>
<tr>
<td>PHL 304</td>
<td>PHILOSOPHY OF HUMAN NATURE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The nature of human beings; the functions of consciousness, the possibility of freedom, the sources of values, and the goals of human life. <strong>Prerequisite(s):</strong> (ASI 111, 112) or PHL 103.</td>
<td></td>
</tr>
<tr>
<td>PHL 306</td>
<td>PHILOSOPHY OF KNOWLEDGE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Various criteria, origins, and definitions of knowledge proposed by common sense, science, philosophy, and mysticism; questions of evidence, consistency, and validity pertaining to the problem of truth and belief. <strong>Prerequisite(s):</strong> (ASI 111, 112) or PHL 103.</td>
<td></td>
</tr>
<tr>
<td>PHL 307</td>
<td>PHILOSOPHY AND WOMEN</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Issues and problems related to feminist analysis of society and its ideals, such as equal opportunity, sex roles and gender, reverse discrimination, violence, and language. <strong>Prerequisite(s):</strong> (ASI 111, 112) or PHL 103.</td>
<td></td>
</tr>
<tr>
<td>PHL 308</td>
<td>METAPHYSICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Issues and problems under such topics as appearance and reality; universals; relations of mind and matter; the nature of persons and personal identity; causality; freedom and determination. <strong>Prerequisite(s):</strong> (ASI 111, 112) or PHL 103.</td>
<td></td>
</tr>
<tr>
<td>PHL 309</td>
<td>PHILOSOPHY OF MIND</td>
<td>3</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Description</td>
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<tr>
<td>PHL 310</td>
<td>Social Philosophy</td>
<td>The concepts of liberty, justice, and equality as they relate to social problems such as punishment and rehabilitation, insanity and responsibility, privacy, population regulation, economic injustice, environmental degradation, discrimination, and reverse discrimination.</td>
</tr>
<tr>
<td>PHL 311</td>
<td>Philosophy of Religion</td>
<td>The main issues involved in religious belief and practice, such as the relationship between reason and revelation; critical presentation of views of main writers in the field.</td>
</tr>
<tr>
<td>PHL 312</td>
<td>Ethics</td>
<td>Various types of moral and ethical theory in the Western tradition and major problems such as the extent of human responsibility and the conditions for making ethical judgments.</td>
</tr>
<tr>
<td>PHL 313</td>
<td>Business Ethics</td>
<td>Review of general ethical theory; ethical assessments of incidents that often occur in commerce affecting employees, employers, consumers, competitors, or the local community.</td>
</tr>
<tr>
<td>PHL 314</td>
<td>Philosophy of Law</td>
<td>Major concepts of law to include the nature of law, legal reasoning, liberty, justice, responsibility, punishment.</td>
</tr>
<tr>
<td>PHL 315</td>
<td>Medical Ethics</td>
<td>Introduction to morality in general and inquiry into the major moral problems of medical practice; human life and the preservation of its integrity.</td>
</tr>
<tr>
<td>PHL 315W</td>
<td>Problems in Medical Ethics</td>
<td>An analysis of special ethical issues raised in a specific area of medical practice. Web-based course. May be repeated when topic changes.</td>
</tr>
<tr>
<td>PHL 316</td>
<td>Engineering Ethics</td>
<td>Introduction to ethical issues in engineering by developing theories of moral justification and codes of ethics for engineers, and by applying these theories and codes to moral issues in engineering.</td>
</tr>
<tr>
<td>PHL 317</td>
<td>Ethics and Modern War</td>
<td>Study in applied ethics focusing on the implications of power politics and militarism; various ethical approaches used to evaluate wars, terrorism and violence; and an overview of some alternatives to war.</td>
</tr>
<tr>
<td>PHL 318</td>
<td>Family Ethics</td>
<td>Introduction to the development of the concept of a family in the tradition of Western philosophy and the philosophic analysis of contemporary ethical problems in marriage and in parenthood.</td>
</tr>
<tr>
<td>PHL 319</td>
<td>Information Ethics</td>
<td></td>
</tr>
</tbody>
</table>
Examination of ethical principles, codes, cases, incidents, and issues in the design, implementation, and use of computerized information systems. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 320** PHILOSOPHY OF ART
Theories of art and criteria of evaluation developed by philosophers, artists, and critics; the relationship between art and society and between artistic and other human values. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 321** ENVIRONMENTAL ETHICS
Study of the principal ethical perspectives on the treatment of animals and nature including such issues as agriculture, energy, pollution, and economics; assessment of political responses to current environmental problems. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 323** PHILOSOPHY AND LITERATURE
Critical examination of philosophical concepts in selected literary masterpieces, ancient and modern. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 324** PHILOSOPHY AND FILM
Introduction to philosophical issues and aesthetic theory through a critical reading of texts and examination of selected narrative, documentary, animated, or abstract films. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 325** PHILOSOPHY OF MUSIC
Examination of theories on the meaning of music; experiencing music as composer, performer, and listener; aesthetic criteria; moral effect of music. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 327** PHILOSOPHY OF PEACE
Examination of human violence and ethical justifications for war and exploration of resolutions for human conflict in processes such as pacifism, peacemaking, democratic world governance, nonviolent caring, and a sustainable economy. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 330** PHILOSOPHY OF SCIENCE
Critical examination of the underpinnings of scientific knowledge, and how it differs from other systems of belief and knowledge, through an analysis and evaluation of various scientific concepts such as scientific laws, explanation, observation, and theory, with an exploration of the methods, presuppositions, and biases of scientific knowledge claims. 
**Prerequisite(s):** ASI 112 or PHL 103.

**PHL 331** SCIENCE, OBJECTMITY, AND VALUES
Study of three interrelated issues: the limits of scientific methodology; science as a social institution; and science and human values. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 332** TECHNOLOGY AND VALUES
Study of the social impact of technology-scientists' responsibility; technological change and social change; the "technological fix"; democracy and the new technological elite; counter-culture critiques of technology. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 333** PHILOSOPHY AND COGNITIVE SCIENCE
A philosophical introduction to recent research in cognitive psychology, artificial intelligence, and neuroscience regarding human, animal, and machine intelligence; the relation between mind, brain, and personhood; and the biology of conscious states. 
**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 340** SPECIAL PROBLEMS IN PHILOSOPHY
Examination of perennial and contemporary problems of philosophy. May be repeated when topic changes.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 345 PHILOSOPHY SCHOLARS' SEMINAR**
Study and seminar discussion of selected major philosophical works and the analysis, interpretation, and criticism of these works. Open by permission only to students in the Berry Scholars Program.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 350 CLASSICAL GREEK PHILOSOPHY**
The Greek origins of Western scientific, philosophical, and political thought; relationships to current thoughts; ideas of the pre-Socratics, Plato, and Aristotle in their cultural contexts.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 351 MEDEVAL PHILOSOPHY**
Major philosophical problems from the fourth through the sixteenth centuries and their importance in shaping current beliefs and traditions in the Augustinian, Jewish, Islamic, Persian, Thomist, and Oxford cultural settings; human action, conscience, freedom, and law.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 352 MODERN PHILOSOPHY**
Development of philosophy in the seventeenth and eighteenth centuries up to Kant with a focus on several major philosophical figures such as Descartes, Spinoza, Leibniz, Locke, Berkeley, and Hume.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 353 KANT AND NINETEENTH-CENTURY PHILOSOPHY**
Development of philosophy beginning with Kant through the nineteenth century including Kant and philosophers such as Fichte, Schelling, Hegel, Schopenhauer, Nietzsche, James, Peirce, and Frege.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 354 TWENTIETH-CENTURY PHILOSOPHY**
A study of some of the major philosophical movements in the twentieth century including phenomenology, existentialism, critical theory (Frankfurt School), hermeneutics, and analytic philosophy.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 355 ASIAN PHILOSOPHY**
Introduction to Asian philosophy through the study of philosophers, texts, philosophical schools and concepts that have their origins in Asia. Comparisons of various Asian philosophies with each other as well as with western traditions.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 356 CHRISTIAN PHILOSOPHY**
Major issues such as the relation of faith to reason, the relation of science to faith, and the problem of natural law. Christian considerations of practical philosophy and social theory.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 357 RADICAL PHILOSOPHY**
Study of major attempts to develop a critical understanding of society; analysis of theories such as socialism, anarchism, feminism, critical theory, and critical race theory.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 358 MARXIST PHILOSOPHY**
Introduction to the thought of Karl Marx through a study of the historical setting of the man and his writings, along with recent interpretations of his thought.

**Prerequisite(s):** (ASI111, 112) or PHL 103.

**PHL 360 EXISTENTIALISM**
Major themes in representatives of the existentialist movement, such as human freedom, the absurdity of human existence, the primacy of action, and the roles of speculation and the emotions.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 361  AMERICAN PHILOSOPHY**

Study of the development of American philosophies in the context of historical interactions among Indigenous, European, African, and Asian worldviews in the Americas. Representatives of classical American pragmatism, such as Peirce, James, Dewey, and Addams will be studied in this context.

**Prerequisite(s):** ASI 112 or PHL 103.

**PHL 362  PHILOSOPHY OF LANGUAGE**

Theories of meaning and reference and their philosophical significance.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 363  AFRICAN PHILOSOPHY**

Introduction to African world views, ethical notions, and social ideas using analytical and comparative approaches; examination of concepts of human diversity and universality; analysis of the transition of traditional African culture to modernity.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 364  RACE, GENDER, AND PHILOSOPHY**

A philosophical investigation into the systematic nature of racism and sexism, including inquiry into the epistemological, metaphysical, linguistic, and representational structures that sustain and perpetuate the power dynamics of western post-colonial patriarchal society.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 365  ISLAMIC PHILOSOPHY AND CULTURE**

Examination of selected Islamic thinkers and philosophical traditions, from the period of the Ummayyad Caliphate to the postcolonial era, and their influence on Christian and Jewish thought. Islamic conceptions of law, political society, ethics, hermeneutics, science, revelation, and reality. Special emphasis upon the role of the arts in shaping Islamic philosophy.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 370  POLITICAL PHILOSOPHY**

Philosophical theories regarding the nature of the state and the legitimization of political authority will be analyzed and evaluated in the context of philosophical conceptions of human nature, liberty, equality, justice, welfare, and power.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 371  PHILOSOPHY AND HUMAN RIGHTS**

Examination of the nature and philosophical foundations of universal moral (human) rights; and application of human rights theory to issues and cases involving civil and political rights, and rights to equality, security, subsistence, education, welfare, employment, and health care.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 372  VALUES AND ECONOMICS**

An inquiry into the impact of values and beliefs on the generation of modern economic forces. Analyzing capitalism as a system of validation of beliefs and values, the course relates underdevelopment with the conflict between tradition and modernity. It then reflects on the conditions of change liable to promote global expansion.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 373  PHILOSOPHY AND CULTURAL DIVERSITY**

Philosophical investigation into historical, social, and political dimensions of human diversity in its various manifestations. Topics include colonialism, racism, multiculturalism, nationalism, and democracy.

**PHL 440  SEMINAR - ADVANCED PROBLEMS IN PHILOSOPHY**
Detailed examination of some of the more technical problems of philosophy as well as those problems that arise in interdisciplinary settings upon which philosophers have brought their technical skills to bear. May be repeated when topic varies.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 451** **SEMINAR - INDIVIDUAL PHILOSOPHERS**

Detailed examination of the thought of an individual philosopher (e.g., Aquinas, Kant, Rawls, Quine) who is of sufficient importance to warrant special study. May be repeated when topic varies.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 461** **SEMINAR - CONTEMPORARY EPISTEMOLOGY**

Study of recent philosophical work in the theory of knowledge inclusive of scepticism, knowledge and belief, evidence and justification, theories of perception and knowledge, human interests and valuation.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 462** **SEMINAR - CONTEMPORARY ETHICS**

Study of recent philosophical work in ethics inclusive of an analysis of ethical concepts, theories of normative ethics, theories of human action, and moral justification.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 463** **SEMINAR - CONTEMPORARY METAPHYSICS**

Study of recent work in metaphysics inclusive of the nature of metaphysics, causality, free will and determinism, personal identity and the theory of mind and body.

**Prerequisite(s):** (ASI 111, 112) or PHL 103.

**PHL 477** **HONORS THESIS PROJECT**

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**PHL 478** **HONORS THESIS PROJECT**

Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**PHL 490** **DIRECTED READINGS**

Guided independent study primarily for philosophy majors but open to students who have completed twelve semester hours in philosophy. Normally three semester hours but in certain cases the chairperson may approve one, two, or four semester hours. May be repeated when topic changes.

**Prerequisite(s):** (ASI 111, 112) or PHL 103; permission of department chairperson and instructor.

**PHL 492** **DIRECTED RESEARCH**

Faculty-directed research for philosophy majors who have completed all 300-level requirements and at least one 400-level seminar. Students will write a substantial paper in relation to this research.

**Prerequisite(s):** (ASI 111, 112) or PHL 103; permission of department chairperson and instructor.

**PHL 495** **INTERNSHIP**

1 - 3
Supervised practical and professional experience related to philosophy for philosophy majors who have completed prescribed course work. May be repeated to a maximum of three semester hours. Grading Option Two only. 

**Prerequisite(s):** ASI 111, 112; PHL 103, 302, 350, 352; one 400-level seminar; permission of department chairperson.
College of Arts and Sciences

(PHY) Physics (Collapse Description)

The program leading to the Bachelor of Science with a major in physics is designed to provide a strong yet versatile basis for a subsequent scientific career or advanced study. Minimum requirements for all majors are listed below, but students planning for graduate work in physics or an allied area are advised to select additional mathematics and physics courses. A physics major must complete all 300-400-level courses with a 2.0 minimum grade-point average.

Students have the option of adding a multidisciplinary concentration in electro-optics to their physics degree. The concentration is appropriate for physics majors who wish to pursue possible careers in photonics or graduate degrees in the area of optics.

PHY, PSC, and PCS majors are required to attain a grade of C- or better in all physics and math courses that are prerequisite courses for physics courses required of majors.

A minor in physics consists of twelve semester hours.

Faculty

J. Michael O'Hare, Chairperson
Distinguished Professor: Bueche
Professors Emeriti: Graham, Kepes, Miner, Yaney
Professors: Ewaraye, O'Hare, Pedrotti,
Associate Professors: Berney, Brecha, Craver, Elhamri, Erdel, Powers
Assistant Professors: Ahouja, Smith

Majors/Minors (Collapse All)

Major/Minor Name

Bachelor of Science with a major in Physical Science (PSC)

The Physical Science Program is administered by the Department of Physics. It provides a broad training in the physical sciences that is desirable for one who plans to pursue a goal built on a composite science background. The physical science major combines adequate physics, chemistry, geology, and mathematics to provide a sound working knowledge of physical science. Since the program is less specialized than one in a single science, it has provision for adequate course selections and sufficient electives to provide the opportunity for concentrated study in a discipline chosen to meet the career objectives of the individual student.

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>11</td>
</tr>
<tr>
<td>PHY 206, 207, 208, 210L, 211L</td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>CHM 123-123L, 124-124L</td>
<td></td>
</tr>
<tr>
<td>Geology</td>
<td>8</td>
</tr>
<tr>
<td>GEO 115-115L, 116-116L</td>
<td></td>
</tr>
<tr>
<td>Upper-level physical sciences</td>
<td>26</td>
</tr>
<tr>
<td>Breadth Requirement</td>
<td>36</td>
</tr>
<tr>
<td>Mathematics, Computer Science</td>
<td>18</td>
</tr>
<tr>
<td>CPS (132 or 144)</td>
<td></td>
</tr>
<tr>
<td>MTH 168, 169, 218, 219</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Humanities</td>
<td>9</td>
</tr>
</tbody>
</table>
Philosophy and Religious Studies 12

Communication Competencies 3-9
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 120

At least twelve semester hours in physics.

Bachelor of Science with a major in Physics (PHY)

<table>
<thead>
<tr>
<th>General Physics Concentration</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 206, 207, 208, 210L, 211L, 301, 303, 333, 390, 408, 430L, 431L</td>
<td>30</td>
</tr>
<tr>
<td>PHY electives (300- and 400-level)</td>
<td>7</td>
</tr>
</tbody>
</table>

Breadth Requirement

| Natural Sciences | 8 |
| CHM 123-123L, 124-124L | |
| Mathematics, Computer Science | 21 |
| CPS (132 or 144) | |
| MTH 168, 169, 218, 219, 310 | |
| Social and Behavioral Sciences | 6 |
| Humanities | 9 |
| Philosophy and Religious Studies | 12 |

Communication Competencies 3-9
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 120

Physics and Electro-optics Concentration 42

| ECE 443 | 3 |
| PHY 206, 207, 208, 210L, 211L, 301, 303, 333, 390, 404, 408, 430L, 431L | 33 |
| Any two from: EOP 501, 502, 505, 506 (or ECE 573), 513 (or ECE 572), 514 (or ECE 574) | 6 |

Breadth Requirement

| Natural Sciences | 8 |
| CHM 123-123L, 124-124L | |
| Mathematics, Computer Science | 21 |
| CPS (132 or 144) | |
| MTH 168, 169, 218, 219, 310 | |
| Social Science and Behavioral Science | 6 |
| Humanities | 9 |
| Philosophy and Religious Studies | 12 |

Communication Competencies 3-9
Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 120

Bachelor of Science with a major in Physics-Computer Science (PCS)

This combined program in physics and computer science leading to the Bachelor of Science with a major in Physics-Computer Science emphasizes the use of computer software in scientific applications and at the same time gives a foundation in the scientific disciplines of physics and computer science. Minimum requirements for the degree are listed below. Students are advised to select additional computer science, mathematics, and physics courses as electives. For further information contact the Physics Department.
**Computer Science**
- CPS 150, 151, 250, 345, 350, 353
- Two additional courses (350-level or above)

**Mathematics**
- MTH 168, 169, 218, 219, 310

**Physics**
- PHY 206, 207, 208, 210L, 211L, 323, 333
- Four additional courses (300- or 400-level)

**Breadth Requirement**
- Social and Behavioral Sciences 6
- Humanities 9
- Philosophy and Religious Studies 12

**Communication Competencies**
- Introduction to the University: ASI 150 0-1

**General Education courses/academic electives to total at least** 120

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1 Additional numerical analysis courses are recommended.
2 A senior project involving some application of computers in physics is recommended.

**Minor in Physics (PHY)**

**Physics**
- Select twelve semester hours (300- or 400-level) 12

**Courses (Collapse All Courses)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 100</td>
<td>SEMINAR</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Opportunity to become acquainted with the broad spectrum of modern science through periodic meetings with the entire department. Invited speakers, films, student presentations, book reviews, and informal discussions. For all physics, physical science, and physics-computer science majors.</td>
<td></td>
</tr>
<tr>
<td>PHY 105</td>
<td>PHYSICAL SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Broad introduction to physical science. Emphasis on concepts and scientific thought processes dealing with principles in physics; some applications to chemistry, astronomy, and meteorology. This course includes an integrated laboratory component. For nonscience students.</td>
<td></td>
</tr>
<tr>
<td>PHY 108</td>
<td>PHYSICAL SCIENCE OF LIGHT AND COLOR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A treatment of physical science with emphasis on light, color, and the interaction of light with materials. For nonscience students.</td>
<td></td>
</tr>
<tr>
<td>PHY 108L</td>
<td>LIGHT AND COLOR LABORATORY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Laboratory experiences to accompany PHY 108.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Corequisite(s):</strong> PHY 108.</td>
<td></td>
</tr>
<tr>
<td>PHY 201</td>
<td>GENERAL PHYSICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Topics from mechanics, thermal and mechanical properties of matter, wave motion and sound, and electricity without the formalism of calculus. First term, each year.</td>
<td></td>
</tr>
<tr>
<td>PHY 201L</td>
<td>GENERAL PHYSICS LABORATORY</td>
<td>1</td>
</tr>
</tbody>
</table>
Introductory laboratory appropriate for students of the health sciences. Experimental scientific techniques and the use of standard laboratory equipment. One two-hour period each week. First term, each year.

**Corequisite(s):** PHY 201 or 206.

**PHY 202**  
**GENERAL PHYSICS**  
Continuation of PHY 201 with a treatment of electricity and magnetism, wave motion and properties of light, atomic and nuclear physics. Second term, each year.  
**Prerequisite(s):** PHY 201.

**PHY 202L**  
**GENERAL PHYSICS LABORATORY**  
Experimental scientific techniques and the use of standard laboratory equipment. One two-hour period per week. Second term, each year.  
**Prerequisite(s):** PHY 201L.

**PHY 203**  
**MODERN TECHNICAL PHYSICS**  
Introduction to selected topics in modern physics without the formalism of calculus. For engineering technology students.  
**Prerequisite(s):** College algebra, trigonometry, and introductory statics and dynamics.

**PHY 203L**  
**TECHNICAL PHYSICS LABORATORY**  
Laboratory experiences to accompany PHY 203.

**PHY 206**  
**GENERAL PHYSICS I - MECHANICS**  
Introductory course in mechanics for students with a strong background in physics. Three lectures, one recitation each week.  
**Corequisite(s):** MTH 148 or 168.

**PHY 206H**  
**GENERAL PHYSICS I - MECHANICS (HONORS)**  
Introductory course in mechanics for students with a strong background in physics. Three lectures, one recitation each week. By invitation only.  
**Corequisite(s):** MTH 148 or 168.

**PHY 207**  
**GENERAL PHYSICS II - ELECTRICITY AND MAGNETISM**  
The basic principles of electricity and magnetism. Three lectures, one recitation each week.  
**Prerequisite(s):** PHY 201 or 206.  
**Corequisite(s):** MTH 149 or 169.

**PHY 208**  
**GENERAL PHYSICS III - MECHANICS OF WAVES**  
Introduction to wave phenomena (including sound, light, and matter waves) leading to basic concepts in modern physics.  
**Prerequisite(s):** (MTH 140; PHY 202) or (MTH 169; PHY 207).

**PHY 210L**  
**GENERAL PHYSICS LABORATORY I**  
Introduction to laboratory methods, handling of data, and analysis of results. Experiments appropriate to the background of students with an interest in mathematical and physical sciences. Two hours laboratory, one hour recitation each week.  
**Corequisite(s):** PHY 206.

**PHY 211L**  
**GENERAL PHYSICS LABORATORY II**  
Laboratory methods, data handling, and analysis of results. Experiments appropriate to the background of students with an interest in mathematical and physical sciences. Two hours laboratory, one hour recitation each week.  
**Prerequisite(s):** PHY 210L.  
**Corequisite(s):** PHY 207.

**PHY 232**  
**THE PHYSICS OF WAVES**  
Physical concept and mathematical relations describing wave phenomena in a variety of physical systems. Topics include oscillation in mechanical and electrical systems, mechanical and electromagnetic waves, geometrical and physical optics and matter waves. Designed for electrical and computer engineering students, but open to all meeting the prerequisites.  
**Prerequisite(s):** PHY 206; MTH 169 (may be taken as a corequisite).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 250</td>
<td>DESCRIPTIVE ASTRONOMY</td>
<td>3-4</td>
<td>Descriptive survey for students who have had little or no previous exposure to astronomy; material from ancient times to present, including pulsars and quasi-stellar objects.</td>
</tr>
<tr>
<td>PHY 301</td>
<td>THERMAL PHYSICS</td>
<td>3</td>
<td>Thermodynamical descriptions of many particle systems obtained from microscopic statistical considerations; laws of thermodynamics, kinetic theory of dilute gases, and Fermi-Dirac and Bose-Einstein statistics. Prerequisite(s): PHY 208 or 232. Corequisite(s): MTH 219.</td>
</tr>
<tr>
<td>PHY 303</td>
<td>INTERMEDIATE MECHANICS I</td>
<td>3</td>
<td>The fundamental concepts of mechanics: virtual work, kinematics, special theory of relativity, Lagrange's equation and central forces, particle dynamics. Prerequisite(s): PHY 208 or 232. Corequisite(s): MTH 219.</td>
</tr>
<tr>
<td>PHY 321</td>
<td>ATOMIC AND NUCLEAR PHYSICS</td>
<td>3</td>
<td>Concepts and models of the structure of matter; atoms, ions, electrons and nuclei, radioactivity, interactions of radiation with matter, particle detection, accelerators, nuclear models, nuclear reactions and processes, and fundamental particles. Prerequisite(s): (PHY 208 or 232) or permission of instructor.</td>
</tr>
<tr>
<td>PHY 323</td>
<td>COMPUTATIONAL PHYSICS</td>
<td>3</td>
<td>The course will explore how computers are used in physics. Topics will include simulations of physical systems, numerical analysis, and the use of mathematical analysis packages (MATHCAD, for example.) Programming will be done in True BASIC and MATHCAD. Prerequisite(s): MTH 218; (PHY 208 or 232).</td>
</tr>
<tr>
<td>PHY 333</td>
<td>DIGITAL AND ANALOG ELECTRONICS FOR SCIENTISTS</td>
<td>3</td>
<td>Basic concepts of digital and analog integrated circuit electronics are developed as a way to understand modern microcomputer-based instrumentation. A microcomputer-based data collection and analysis system is used to study binary data input and output, analog to digital conversion (ADC) devices, digital to analog conversion (DAC) devices, and other digital integrated circuits and concepts. The analog electronics part of the course begins with a study of discrete analog devices and ends with operational amplifiers and their application. Two hours lecture and two hour laboratories each week. Prerequisite(s): (PHY 202L or 211L) or equivalent.</td>
</tr>
<tr>
<td>PHY 390</td>
<td>INTRODUCTION TO QUANTUM MECHANICS</td>
<td>3</td>
<td>Basic postulates of quantum mechanics with applications made to atomic physics. Prerequisite(s): MTH 219; (PHY 208 or 232). Corequisite(s): MTH 302.</td>
</tr>
<tr>
<td>PHY 395</td>
<td>RESEARCH PARTICIPATION I</td>
<td>1-6</td>
<td>Individual projects conducted as part of the physics Undergraduate Research Participation program to encourage involvement of students with faculty researchers. Projects must be arranged in advance with faculty research directors.</td>
</tr>
<tr>
<td>PHY 396</td>
<td>SPECIAL PROBLEMS IN (NAMED AREA)</td>
<td>1-4</td>
<td>Special topical courses, laboratory, tutorial, or library work in areas of current interest. Students should consult the composite.</td>
</tr>
<tr>
<td>PHY 403</td>
<td>INTERMEDIATE MECHANICS II</td>
<td>3</td>
<td>Emphasis on solving physical problems; noninertial coordinate systems, rigid body motion, rotating systems, coupled systems, introductory fluid statics and dynamics, normal coordinates, and the descriptions of mechanics appropriate for the transition to wave mechanics.</td>
</tr>
</tbody>
</table>
Prerequisite(s): PHY 303.

**PHY 404** PHYSICAL OPTICS

The electromagnetic wave theory of light, propagation of waves, reflection, refraction, dispersion, polarization, dichroism, birefringence, superposition of waves, interference, diffraction, Fourier optics.

Prerequisite(s): MTH 219; (PHY 208 or 232).

**PHY 406** INTERMEDIATE ELECTRICITY AND MAGNETISM I

Electrostatics, Coulomb's law, Gauss's law, potential, dielectric materials, electrostatic energy, solutions to Laplace's and Poisson's equations, Biot-Savart law, Faraday induction law, magnetization, and Maxwell's equations.

Prerequisite(s): MTH 219; (PHY 208 or 232).

**PHY 409** INTERMEDIATE ELECTRICITY AND MAGNETISM II

Further study of electric and magnetic fields with emphasis on solving problems; Maxwell's equations, propagation of electromagnetic waves, electromagnetic radiation.

Prerequisite(s): PHY 408.

**PHY 411** TOPICS IN MODERN PHYSICS

Elements of modern optics, solid state and other selected subjects. Consult chairperson for details.

Prerequisite(s): PHY 390 or equivalent.

**PHY 420** INTRODUCTION TO SOLID STATE

Classification of solids, crystals and crystal structures, survey of lattice properties, free electron theory, band theory of solids, semi-conductors, and crystal imperfections.

Prerequisite(s): MTH 219; (PHY 208 or 232); PHY 390.

**PHY 430L** ADVANCED LABORATORY

Experimental investigations based on principles from atomic and nuclear physics, electricity and magnetism, modern and classical optics, mechanics, solid state, cryogenics, x-ray diffraction, surface physics, or electronics. Not all experiments available every semester; consult chairperson for details.

Prerequisite(s): PHY 333.

Corequisite(s): An advanced course in Physics.

**PHY 431L** ADVANCED LABORATORY

Experimental investigations based on principles from atomic and nuclear physics, electricity and magnetism, modern and classical optics, mechanics, solid state, cryogenics, x-ray diffraction, surface physics, or electronics. Not all experiments available every semester; consult chairperson for details.

Prerequisite(s): PHY 333.

Corequisite(s): An advanced course in Physics.

**PHY 432L** ADVANCED LABORATORY

Experimental investigations based on principles from atomic and nuclear physics, electricity and magnetism, modern and classical optics, mechanics, solid state, cryogenics, x-ray diffraction, surface physics, or electronics. Not all experiments available every semester; consult chairperson for details.

Prerequisite(s): PHY 333.

Corequisite(s): An advanced course in Physics.

**PHY 433L** ADVANCED LABORATORY

Experimental investigations based on principles from atomic and nuclear physics, electricity and magnetism, modern and classical optics, mechanics, solid state, cryogenics, x-ray diffraction, surface physics, or electronics. Not all experiments available every semester; consult chairperson for details.

Prerequisite(s): PHY 333.

Corequisite(s): An advanced course in Physics.

**PHY 440** QUANTUM MECHANICS II

Study of selected principles in quantum mechanics.

Prerequisite(s): PHY 390.
PHY 450  SENIOR PROJECT
The senior project is a capstone experience for senior physics majors. It will consist of a research project of the student's choosing and will require both an oral and written report. The nature and scope of the project will be chosen in consultation with the student's advisor. Permission of the department chairperson is required. Senior physics majors only.

PHY 460  SEMINAR
Presentation of papers by undergraduate students, faculty, and a guest lecturer on topics of concern to the modern physicist. Reviews of books and films appropriate to the group.

PHY 477  HONORS THESIS PROJECT
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approval of University Honors Program.

PHY 478  HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approved 477 and approval of University Honors Program.

PHY 495  RESEARCH PARTICIPATION II
Individual projects conducted as part of the physics Undergraduate Research Participation program to encourage involvement of students with faculty researchers. Projects must be arranged in advance with faculty research directors.

PHY 499  SPECIAL PROBLEMS IN (NAMED AREA) (HONORS)
Laboratory, tutorial, or library work in one of such selected topics as solid state physics, polymers, atomic and nuclear physics, modern optics, theoretical physics, surface physics, or general physics.
Prerequisite(s): Permission of department chairperson.
College of Arts and Sciences

(POL) Political Science  (Collapse Description)

A major in political science requires thirty-six semester hours of political science courses.

A minor in political science consists of fifteen semester hours. Courses selected by students should strengthen academic or career objectives.

Minors and Area Concentrations for Majors

A student majoring in political science may elect licensure in education (see EDT) or a minor in any related discipline within the College of Arts and Sciences. The student must consult with the department administering the discipline for the particular requirements of a minor. Students majoring in political science may elect to develop a multidisciplinary concentration in an area of interest including prelaw, international affairs, public administration and urban affairs, political journalism or others developed by the student in conjunction with his or her advisor.

Faculty

Christopher Duncan, Chairperson
Professors Emeriti: Fogel, Kerns, Lapitan
Professors: Ahern, Duncan, Karns
Associate Professors: Bilocerkowycz, Ensalaco, Ghere, Ingram, Inscho, Neeley
Assistant Professors: Martorano, Nelson, Pierce
Lecturers: Freiner, Putka

Majors/Minors  (Collapse All)

Major/Minor Name
Bachelor of Arts with a major in Political Science (POL)

Sem. Hrs.

Political Science 36
POL 201, (202 or 214), 207, (319 or 316 or 317) 12
Select twenty-four additional semester hours1,2 24

Liberal Studies Curriculum

Humanities and Fine Arts
Philosophy and Religious Studies 12
History 6
Literature: English or Foreign Language 3
Creative and Performing Arts 3
Foreign Language and/or Additional Arts and/or Humanities 3-9

Social Sciences 12
Mathematics (excludes MTH 102, 204, 205) 3
Natural Sciences 11

Communication Competencies 0-9
Introduction to the University: ASI 150 0-1
General Education courses/academic electives to total at least 124
Including twenty-one semester hours at the 300- or 400-level.

Students earning the B.A. in Political Science may count no more than six semester hours earned on internships (POL 495) toward the fulfillment of the degree requirements in POL. Students may, however, take additional hours of internship credit (POL 465) and count them toward the necessary 124 hours needed for graduation.

Minor in Political Science (POL)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 201</td>
<td>THE AMERICAN POLITICAL SYSTEM</td>
<td>3</td>
</tr>
<tr>
<td>POL 202</td>
<td>INTRODUCTION TO COMPARATIVE POLITICS</td>
<td>3</td>
</tr>
<tr>
<td>POL 207</td>
<td>POLITICAL ANALYSIS</td>
<td>3</td>
</tr>
<tr>
<td>POL 214</td>
<td>INTRODUCTION TO INTERNATIONAL POLITICS</td>
<td>3</td>
</tr>
<tr>
<td>POL 300</td>
<td>POLITICAL ISSUES</td>
<td>3</td>
</tr>
<tr>
<td>POL 301</td>
<td>THE AMERICAN JUDICIAL PROCESS</td>
<td>3</td>
</tr>
<tr>
<td>POL 303</td>
<td>STATE AND LOCAL GOVERNMENT</td>
<td>3</td>
</tr>
<tr>
<td>POL 305</td>
<td>INTRODUCTION TO PUBLIC ADMINISTRATION</td>
<td>3</td>
</tr>
<tr>
<td>POL 306</td>
<td>PUBLIC POLICY ANALYSIS</td>
<td>3</td>
</tr>
<tr>
<td>POL 307</td>
<td>THE POLITICS OF BUREAUCRACY AND REGULATION</td>
<td>3</td>
</tr>
</tbody>
</table>

Courses (Collapse All Courses)

POL 101 GLOBAL POLITICS
Examination of major problems and trends in world politics such as ethnic and religious conflict, economic integration and inequality, democratization and security issues, as well as the role of regional and international organizations.

POL 201 THE AMERICAN POLITICAL SYSTEM
Study of the American political system, its attitudinal and constitutional base, its structure and processes.

POL 202 INTRODUCTION TO COMPARATIVE POLITICS
Analysis of major concepts and approaches in the study of comparative government and politics.

POL 207 POLITICAL ANALYSIS
Introduction to the basic concepts and processes of research in political science.

POL 214 INTRODUCTION TO INTERNATIONAL POLITICS
Analysis of the dynamic forces of conflict and cooperation in world politics.

POL 300 POLITICAL ISSUES
Introductory examination of contemporary political issues selected by the instructor, such topics as welfare, political morality, political campaigns, institutional reform, and political economy.

POL 301 THE AMERICAN JUDICIAL PROCESS
Study of the judicial process as part of the political system. Focus on the participants (police, lawyers, judges, interest groups, litigants, jurors) and the process (criminal, civil, and appellate proceedings).

POL 303 STATE AND LOCAL GOVERNMENT
Comparative study of the political institutions, processes, and systems of the fifty states and their effect on the content and administration of selected public policies, programs, and services.

POL 305 INTRODUCTION TO PUBLIC ADMINISTRATION
Basic principles of organization and management in executive departments of government at all levels; questions of planning, leadership, and control.

POL 306 PUBLIC POLICY ANALYSIS
Introduction to public policy-making systems and the methodology of policy analysis; theories of policy formulation, the policy-making process, means for measuring policy effectiveness, analysis of proposals for policy change.

POL 307 THE POLITICS OF BUREAUCRACY AND REGULATION
Examination of the nature and meaning of bureaucracy in contemporary American society, its relationship to the private sector, and the devices for its evaluation and control.

**POL 308 MORALITY POLICY**

Introduction to the morality-based public policy debate with comparison of morality policy (e.g. abortion, drugs, gay rights, pornography) and traditional forms of public policy; study of the moral basis underlying current political topics and debate.

**POL 310 POLITICAL PARTIES, CAMPAIGNS, AND ELECTIONS**

Analysis of the history, nature, and function of political parties and their role in the political system in both a domestic and comparative context.

**POL 311 PUBLIC OPINION AND POLITICAL BEHAVIOR**

The formation, maintenance, change, and impact of public opinion on the American political system; the role of theory and analysis of data in understanding public and political behavior.

**POL 313 THE AMERICAN PRESIDENCY**

Study of the American presidency, the development of presidential powers, and its leadership role in the political system.

**POL 314 INTEREST GROUP POLITICS**

Exploration of the role of interest groups in the American political system through an examination of their internal organization and their roles in the electoral and policy making processes at the national, state and local levels. **Prerequisite(s):** POL 201.

**POL 316 AMERICAN POLITICAL THOUGHT**

An exploration and critical investigation of selected actors, thinkers, texts, ideas and movements in American political thought and theory from the colonial period to the present. Topics may include the founding, the age of Jackson, the Civil War, Progressivism, Women's Suffrage, the New Deal, the Cold War, the Civil Rights Movement, the 1960s, and others.

**POL 317 DEVELOPMENT OF POLITICAL THEORY**

Analysis of selected theorists and political doctrines forming the tradition of Western thought on politics. Theorists including Plato, Aristotle, the Stoics, Augustine, Aquinas, Machiavelli, Hobbes, Locke, Rousseau, Mill, Marx, Spencer, Lenin, Gasset, and Camus presented in their historical and socio-political contexts.

**POL 318 PUBLIC INTEGRITY AND POLITICAL LEADERSHIP**

Analysis of contemporary leadership issues related to integrity and values in political office-holding, public service, and global governance contexts. **Prerequisite(s):** CMM 201 or (POL 201 or 202 or 214) or permission of instructor.

**POL 319 TWENTIETH-CENTURY POLITICAL THOUGHT**

Analysis of selected political theorists, concepts, and movements from the late nineteenth century to the present. Thinkers and concepts may include Marx, Nietzsche, Sarte, Camus, Freud, Arendt, Strauss, the Frankfurt School, Fanon, Foucault, Rawls, Rorty, existentialism, feminism, colonialism, post-modernity, liberalism, neo-conservatism among others.

**POL 320 COMPARATIVE POLITICS: WESTERN EUROPE**

Analysis of governmental institutions and political processes of Western Europe.

**POL 321 COMPARATIVE POLITICS: RUSSIA AND THE NEW STATES**

Analysis of governmental institutions and political processes of Russia and the New States.

**POL 322 COMPARATIVE POLITICS: LATIN AMERICAN**

Analysis of governmental institutions and political processes of Latin America.
POL 331 NATIONALISM AND ETHNOPOUTICS
An analysis of the politics of nationalism and ethnicity and their impact on social justice. Diverse case studies (US, Russia, Northern Ireland, Israeli-Palestinian) and institutions (European Community, United Nations) will be explored.

POL 333 POLITICS OF HUMAN RIGHTS
Examines the evolution of international human rights norms and the creation of the institutions for the protection and promotion of human rights, and case material relating to each category of internationally recognized human rights.

POL 335 UNITED STATES NATIONAL SECURITY POLICY
Analysis of various political, economic, and military issues and problems relating to U.S. national security.

POL 350 LEGISLATIVE POLITICS
Study of the U.S. Congress, its organization and procedures, and its powers and influence in the political system.

POL 360 URBAN POLITICS AND POLICY
Study of the nature of urban political systems in the U.S. with emphasis on explanation of differences in their policy responses.

POL 371 ENVIRONMENTAL POLICY
Examination of environmental public policymaking and implementation in the U.S. and in the international arena. Analysis of domestic and international government responses to specific environmental issues.

POL 404 UNITED STATES-LATIN AMERICAN RELATIONS
This course examines the foreign relations of the United States with other countries of the Western hemisphere. Political, economic and security issues are examined from both theoretical and historical perspectives. **Prerequisite(s):** (POL 201 or 214) or permission of instructor.

POL 406 INTERNATIONAL LAW AND ORGANIZATION
Study of rules governing the community of nations; their nature, sources, and development; the international agencies responsible for their development, interpretation, and administration. **Prerequisite(s):** POL 214 or permission of instructor.

POL 408 AMERICAN FOREIGN POLICY
Critical study of the American foreign policy process and evaluation of the sources of American foreign policy. **Prerequisite(s):** (POL 201, 214) or permission of instructor.

POL 409 RUSSIAN FOREIGN POLICY
Analysis of the internal and external factors shaping the foreign policies of Russia and the independent republics.

POL 410 COMPARATIVE FOREIGN POLICY
Comparative analysis of the foreign policies of major states with emphasis on the process of policy development and on the national and international determinants of policy behaviors. **Prerequisite(s):** (POL 202 or 214) or permission of instructor.

POL 411 CONSTITUTIONAL LAW
Analysis of the role of the U.S. Supreme Court in its interpretation of the Constitution. Emphasis on the various methods of judicial interpretation as they affect such provisions as the commerce clause, the taxing and spending powers, due process, the dimensions of presidential and congressional authority, and the doctrine of judicial review. **Prerequisite(s):** POL 301 or permission of instructor.

POL 412 COMPARATIVE LAW
Explores how foreign judicial systems protect and promote civil and political rights through different constitutional designs. 

**Prerequisite(s):** POL 301.

**POL 413** THE POLITICS OF BUREAUCRACY AND REGULATION 3
Examination of the nature and meaning of bureaucracy in contemporary American society and the devices for its evaluation and control.

**POL 421** SEMINAR IN POLITICAL SCIENCE 3
Seminar on current problems and issues in political science. May be taken more than once when content changes. 

**Prerequisite(s):** Political Science major; completed POL core courses.

**POL 426** LEADERSHIP IN BUILDING COMMUNITIES 3
Investigation of the processes by which urban neighborhoods develop themselves from the inside out. Students cultivate their own interdisciplinary appreciation of urban communities through extensive interaction with one neighborhood's visioning process. Topics include asset-based community development, social capital, citizenship, adaptive leadership, and community building strategies and tools.

**Prerequisite(s):** POL 301.

**POL 431** INDEPENDENT STUDY AND RESEARCH 3
Individual reading and research on selected topics under faculty direction. Recommended for seniors only.

**Prerequisite(s):** Permission of instructor and department chairperson.

**POL 450** CIVIL LIBERTIES 3
Analytical examination of civil liberties in the U.S. with emphasis on the Supreme Court as arbiter in the endless conflict between the demand for individual liberty and the needs of constitutional authority. 

**Prerequisite(s):** (POL 301 or 411) or permission of instructor.

**POL 452** POLITICAL VIOLENCE 3
Consideration of theoretical approaches to understanding violent change in political institutions; the continuum between violence and nonviolence; revolution, revolt, campus dissent, and political assassination. 

**Prerequisite(s):** (POL 202 or 333) or permission of instructor.

**POL 477** HONORS THESIS PROJECT 3
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**POL 478** HONORS THESIS PROJECT 3
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons. 

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**POL 479** SELECTED TOPICS IN PUBLIC POLICY 3
Intensive examination of policy process, outcomes, and impact in an area or areas of American public policy selected by the instructor; such topics as transportation, education, welfare, national defense, urban and community development, civil rights, and science and technology. May be repeated once when topic changes.

**POL 495** INTERNSHIP 3
Supervised experience in government agencies and programs. Prelaw students are assigned to law firms and judicial chambers.

**Prerequisite(s):** Permission of supervising professor.

**POL 497 SERVICE LEARNING EXPERIENCE**

Supervised community research or service experience that complements a specific upper division course in Political Science. Repeatable up to three semester hours. No more than three semester hours of Social Science 497 credits can count toward graduation.

**Prerequisite(s):** Permission of instructor.

**Corequisite(s):** A 300-400 Political Science course.
College of Arts and Sciences
(PLW) Prelaw (Collapse Description)

At the University of Dayton, any student, regardless of major, thinking about attending law school should join the Prelaw Program. The program provides students with the guidance and academic assistance necessary to prepare them for success in the study of law. Because law schools seek students with a broad, liberal arts education and discourage students from having a vocationally-oriented "prelaw" major, prelaw students at the University of Dayton select undergraduate majors based on their interests and aptitudes. They select these majors either as incoming first-year students or, with the aid of their prelaw advisors, later in their college career. However, in order to receive adequate counseling, all students thinking about postgraduate work in law should declare their prelaw intentions to the prelaw office as early as possible. This enables them to take full advantage of all the counseling, advising, and preparatory services provided by the Prelaw Program.

In addition to courses in their majors, prelaw students select courses that help develop analytical skills and academic abilities necessary for success in law school and careers in law. While no prelaw course of study is perfect for all students, particular courses taken in conjunction with a traditional academic major provide the prelaw student with an excellent academic preparation for legal study. Students take courses which emphasize the following:

1. Skill in the analysis and synthesis of ideas. Courses in such disciplines as history, literature, mathematics, philosophy, and the sciences develop critical, analytical thinking.
2. Proficiency in communicating ideas effectively and clearly. Courses in such areas as composition theory and process, exposition and argumentation, persuasion, and the techniques and uses of research aid in the development of this ability.
3. Comprehension of the basic principles of the American political and legal systems, including their origins and functions. Courses in British and American history, political science, and criminal justice promote an understanding of these concepts.
4. A critical examination of the ethical issues in the law and the legal profession. Courses in philosophy and religious studies form a basis for such an examination.
5. An understanding of the basic principles of economics and accounting.

Members of the Prelaw Committee help students develop an appropriate course of study based on their interests, aptitudes, and goals. In addition, they provide students with information about law school recruitment, financial aid, the Law School Admission Test (LSAT), and the writing of applications and securing of recommendations. The Prelaw Program also sponsors LSAT preparation workshops, a prelaw internship (through the Political Science department) for which students receive course credit while working in an attorney's office, and mock trial competition. A chapter of Phi Alpha Delta, a national law fraternity, is active on campus.

Prelaw Committee
R. Alan Kimbrough (English), Director
Becker (Sociology), Biers (Psychology), Flockerzie (History), Frasca (Economics, Business Administration), Herrelko (School of Engineering), Huff (College of Arts and Sciences), Ingram (Criminal Justice, Political Science), Payne (Philosophy) H. Pestello (Sociology), Pierce (Political Science), Robinson (Biology), Russo (School of Education), Warthman (Communications)

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLW 301</td>
<td>MOCK TRIAL I</td>
<td>1</td>
</tr>
</tbody>
</table>
PLW 302  MOCK TRIAL II
Practice and performance of attorney and witness roles for Mock Trial
Regional and National competitions. Repeatable up to four semester hours.
Prerequisite(s): PLW 301; invitation by mock trial coaches.
College of Arts and Sciences

Premedicine / Predentistry (Collapse Description)

The Bachelor of Science with a major in premedicine (MED) or predentistry (DEN) is an interdisciplinary curriculum of study. It is distinctively designed to provide a science-based, diverse education as a preparation for admission to any of the allied health care professional schools including medical, dental, veterinary, and chiropractic. Courses in biology, chemistry, mathematics, and physics comprise the science core of the major. A substantial complement of humanities and social sciences courses are also required. Within this framework the curriculum is flexible and can be tailored to suit personal interests. During the first two years, students enroll in courses appropriate for entry into professional schools while they also fulfill basic University requirements.

Admission to professional schools depends upon many factors in addition to the curriculum or major. Academic standing, performance on standardized examinations, practical experience relevant to the profession of interest, and adherence to application procedures are all important. The Premedical Programs Office addresses these factors through a comprehensive approach to pre-health care education.

Along with the administration of the DEN and MED majors, the Premedical Programs office acts as the focal point for all matters related to admission to any allied health care professional school. It is an information clearing house, functions as a liaison with professional schools, and coordinates the application process. Students in any major planning to apply to professional schools are urged to maintain a close relationship with this office.

The University automatically enrolls entering premedical or predental majors into special orientation classes, and identifies them to the Premedical Programs office. Members of the Premedical/Predental Advisory Committee advise these students. However, advising services are available to all pre-professional students regardless of their major. Students in other majors may elect to have committee members serve as their secondary advisors; such students should identify themselves to the Premedical Programs office.

In addition to providing counseling, Premedical Programs offers a seminar series, joint programs with medical schools, grants for health care related experiences, and scholarships. Since admission to professional schools is highly selective, the program monitors the academic progress of MED/DEN majors, and provides feedback at the end of the first and second year. Transfers to other majors, particularly to science majors, can usually be accommodated during the first two years without affecting normal progress towards graduation.

Premedical/Predental Advisory Committee

Robert J. Kearns, (Biology) Director
Berney (Physics), Brecha (Physics), Church (Chemistry), Craver (Physics), Erdei (Physics), Hofmann (Biology), Kearns (Biology), Krane (Biology), Lysaught (Religious Studies), Nielsen (Biology), Singer (Chemistry), Smith (Physics), S. Wright (Biology)

Majors/Minors (Collapse All)

Major/Minor Name
Bachelor of Science in Predentistry (DEN)

<table>
<thead>
<tr>
<th>Major/Minor</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predentistry</td>
<td>45-50</td>
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</tbody>
</table>

Required Science Courses
- BIO 151-151L, 152-152L: 8
- MTH ((148 & 149) or (168 & 169)): 6-8
- PHY ((201 & 202) or (206 & 207 & 208)), 201L², 202L²: 8-11
Science electives³
Choose five science electives including two with accompanying laboratories from the following courses.
- CHM 302, 420, 427, 451, 452

General electives⁴,⁵

Breadth Requirement
Social and Behavioral Sciences
History
Humanities⁶
Philosophy and Religious Studies⁷
Arts Study

Communication Competencies
ENG elective⁸
Introduction to the University: ASI 150

General Education courses/academic electives to total at least 120

¹ Students with a weak background should take MTH 137 and 138, followed by MTH 148. Well qualified students are advised to take MTH 168-169.
² Well qualified students are strongly advised to take PHY 206-207-208 lecture sequence with PHY 201L and 202L.
³ The elective courses must be directly related to the primary field of interest.
⁴ Only general elective courses can be taken under Grading Option Two.
⁵ Courses in graphic design, studio art, or performing arts are recommended.
⁶ A modern foreign language is strongly recommended.
⁷ One PHL or REL elective must be an ethics course. Select PHL 312, 315; REL 265, 367.
⁸ Select ENG elective from among ENG 203, 204, 205, 272, 316, or any 300-level General Education ENG elective. ENG 376, when content is Medical Writing, is recommended.

Bachelor of Science in Premedicine (MED)

<table>
<thead>
<tr>
<th>Premedicine</th>
<th>Sem. Hrs.</th>
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<tbody>
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<td>Required Science Courses</td>
<td>45-50</td>
</tr>
<tr>
<td>BIO 151-151L, 152-152L</td>
<td>8</td>
</tr>
<tr>
<td>MTH ((148 &amp; 149) or (168 &amp; 169))¹</td>
<td>6-8</td>
</tr>
<tr>
<td>PHY ((201² &amp; 202) or (206 &amp; 207 &amp; 208)), 201L², 202L</td>
<td>8-11</td>
</tr>
<tr>
<td>- - - (CPS 111 or MTH 367)</td>
<td>3</td>
</tr>
</tbody>
</table>

Science electives³
Choose five science electives including two with accompanying laboratories from the following courses.
- CHM 302, 420, 427, 451, 452

General electives⁴

Breadth Requirement
Social and Behavioral Sciences 12
History 6
Humanities 5
Philosophy and Religious Studies 6
Arts Study 3

Communication Competencies 9-12

ENG elective

Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 120

1 Students with a weak background should take MTH 137 and 138, followed by MTH 148. Well qualified students are advised to take MTH 168-169.
2 Well qualified students are strongly advised to take PHY 206-207-208 lecture sequence with PHY 201L and 202L.
3 The elective courses must be directly related to the primary field of interest.
4 Only general elective courses can be taken under Grading Option Two.
5 A modern foreign language is strongly recommended.
6 One PHL or REL elective must be an ethics course. Select from among PHL 312, 315; REL 360, 367.
7 Select ENG elective from among ENG 203, 204, 205, 272, 316, or any 300-level General Education ENG elective. ENG 376, when content is Medical Writing, is recommended.
College of Arts and Sciences

(PSY) Psychology  (Collapse Description)

Psychology is the scientific study of behavior, and as such is a diverse field that touches all aspects of human endeavor.

The objectives of the Department of Psychology are to provide students with learning experiences in and out of the classroom which will increase their critical thinking skills, facilitate their acquisition of the body of knowledge inherent in the study of human behavior, equip them with its research methodology, and prepare them for employment or graduate school.

The Department of Psychology offers both the Bachelor of Arts and the Bachelor of Science degrees. Each student, in consultation with an advisor, selects a program leading to either a Bachelor of Arts or a Bachelor of Science with appropriate elective credits according to individual interests and goals. The availability of both degrees allows the student to plan a double major or a major in psychology with a strong concentration of study in a related or complementary discipline. It also allows for easy transfer into psychology from prior majors. The department encourages students who are interested in preparation for graduate school or a career in a particular area of psychology to consult the Psychology Undergraduate Student Handbook, available on the World Wide Web, for a listing of courses that are recommended for preparation in that area. Some examples of such areas include clinical psychology, developmental psychology, human factors/ergonomics, and social psychology.

Each psychology major must complete PSY 101, 216, and 217 early in his or her academic career. The remaining requirements are stated in the two outlines below. Exceptions to these requirements must be approved by the chairperson.

Psychology majors are required to attain grades of C- or better in the following courses: PSY 101, 216, 217, and any two courses from each of the two core groupings (PSY 321, 322, 323, 422) (PSY 341, 351, 361, 363). If a C- or better is not attained, courses will have to be retaken if they are used to satisfy the psychology major.

A minor in psychology consists of eighteen semester hours.

Faculty

David W. Biers, Chairperson
Professors Emeriti: Allies, Butler, DaPolito, Kuntz
Professors: Eggemeier, Kimble, Poizella
Associate Professors: Biers, Bower, Elvers, Katsuyama, Korte, Lutz, Moroney, Reeb, Roecker-Phelps, Rye
Assistant Professors: Bauer, Crutcher, Davis, Kirschman
Visiting Assistant Professor: Cahoon
Adjunct Faculty: Fischbach, Layman-Guadalupe, Tedesco, Wallace, Zink

Majors/Minors  (Collapse All)  

Major/Minor Name

Bachelor of Arts with a major in Psychology (PSY)  

<table>
<thead>
<tr>
<th>Major</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>34</td>
</tr>
<tr>
<td>PSY 101, 216</td>
<td>10</td>
</tr>
<tr>
<td>Select two courses from:</td>
<td></td>
</tr>
<tr>
<td>PSY 321, 322, 323, 422</td>
<td>6</td>
</tr>
<tr>
<td>Select two courses from:</td>
<td></td>
</tr>
<tr>
<td>PSY 341, 351, 361, 363</td>
<td>6</td>
</tr>
<tr>
<td>Psychology electives</td>
<td>12-23</td>
</tr>
</tbody>
</table>
## Liberal Studies Curriculum

### Humanities and Fine Arts

- Philosophy and Religious Studies: 12
- History: 6
- Literature: English or foreign language: 3
- Creative and Performing Arts: 3
- Foreign Language and/or Arts and/or Humanities: 3-9

### Social Sciences (excludes PSY courses)

- 12

### Mathematics


### Natural Sciences

- 12

### Communication Competencies

- 0-9

### Introduction to the University: ASI 150

- 0-1

### General Education courses/academic electives to total at least

- 124

1. May substitute MTH 207 for PSY 216, but the MTH course does not count toward the thirty-four credit hours required in PSY for the major.

2. No more than a total of six hours of PSY 352, 477, 478, 490, 493, 494, and/or 497 may count toward the thirty-four credit hours required in PSY for the major.

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### Psychology (PSS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 101, 216(^1), 217</td>
<td>10</td>
</tr>
</tbody>
</table>

Select two courses from:

- PSY 321, 322, 323, 422: 6

Select two courses from:

- PSY 341, 351, 361, 363: 6

PSY electives\(^2\):

- 12-23

### Breadth Requirement

<table>
<thead>
<tr>
<th>Category</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>Natural Sciences(^3)</td>
<td>24</td>
</tr>
<tr>
<td>Mathematics, Computer Science</td>
<td>6</td>
</tr>
<tr>
<td>MTH 145(^4), 149(^4)</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>9</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>12</td>
</tr>
</tbody>
</table>

### Communication Competencies

- 0-9

### Introduction to the University: ASI 150

- 0-1

### General Education courses/academic electives to total at least

- 120

---

1. May substitute MTH 207 for PSY 216, but the MTH course does not count toward the thirty-four credit hours required in PSY for the major.

2. No more than a total of six hours of PSY 352, 477, 478, 490, 493, 494, and/or 497 may count toward the thirty-four credit hours required in PSY for the major.

3. Two three-semester hour natural science courses (BIO, CHM, GEO, PHY) with accompanying laboratories are required. The remaining sixteen semester hours may be fulfilled by courses in BIO, CHM, GEO, PHY, and CPS courses as well as by MTH courses beyond the departmental MTH requirement.


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Minor in Psychology (PSY)
Psychology

PSY 101

Study of human behavior including development, motivation, emotion, personality, learning, perception; general application of psychological principles to personal, social, and industrial problems. Students must participate in departmental research.

PSY 216

Basic probability and applied statistics: measures of central tendency and dispersion, sampling, estimation, hypothesis testing, tests between means, linear regression, correlation, and ANOVA.

Prerequisite(s): MTH 102 or higher; PSY 101.

PSY 217

Basic concepts of scientific methods as applied to psychological problems. Experiments to familiarize students with application of scientific methodology to study of human psychological processes. Required of all psychology majors.

Prerequisite(s): PSY 101, 216.

PSY 251

Focuses on stages of human development from infancy through the aging adult. Emphasis is on various theoretical approaches and the development associated with each stage. Psychology majors may not take for credit toward major.

Prerequisite(s): PSY 101.

PSY 321

Information-processing approach to attention, perception, memory, imagery, and thought. Theoretical structures including neuron modeling of higher cognitive and experimental processes.

Prerequisite(s): PSY 101.

PSY 321L

In-depth discussion of seminal research in cognition. Collection, analysis, and interpretation of data.

Prerequisite(s): (PSY 101, 216, 217, 321) or permission of instructor.

PSY 322

Foundations of the learning process. Classical and instrumental paradigms and variants of each considered in preparation for investigations of complex learning.

Prerequisite(s): PSY 101.

PSY 323

Introduction to major theoretical and experimental work in perception, including visual, auditory, proprioceptive, and other sensory systems.

Prerequisite(s): PSY 101.

PSY 333

Only three semester hours of PSY 352, 490, 493, 494, and/or 497 may count toward the minor.
Survey of major tests of intelligence, aptitude, interest, and personality presently used in clinics, schools, personnel offices, and research settings. Emphasis on evaluation and comparison, rationale of construction, ethical considerations.

**Prerequisite(s):** (PSY 101, 216) or equivalent.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 334</td>
<td>INDUSTRIAL PSYCHOLOGY</td>
<td>Introduction to modern efforts to improve human performance in industrial organizations and society; selection and placement of employees, morale, training, and incentives.</td>
</tr>
<tr>
<td>PSY 341</td>
<td>SOCIAL PSYCHOLOGY</td>
<td>Survey of major theoretical and experimental work in the field; attitudes, conformity, emotions, group dynamics.</td>
</tr>
<tr>
<td>PSY 344</td>
<td>INTERPERSONAL RELATIONS</td>
<td>Social psychological research in nonverbal behavior, social exchange, self-disclosure, and interpersonal attraction and how these are related to developing relationships.</td>
</tr>
<tr>
<td>PSY 351</td>
<td>CHILD PSYCHOLOGY</td>
<td>Study of psychological processes from the developmental point of view; changes in perception, cognition, emotion, and social behavior from infancy to adolescence.</td>
</tr>
<tr>
<td>PSY 352</td>
<td>FIELD EXPERIENCE IN CHILD PSYCHOLOGY</td>
<td>Practical experience with a community agency providing instructional, recreational, or therapeutic services. Volunteer four to five hours weekly.</td>
</tr>
<tr>
<td>PSY 353</td>
<td>THE PSYCHOLOGY OF ADULT DEVELOPMENT AND AGING</td>
<td>Provides a general introduction to the multi-disciplinary field of adulthood and aging with a specific focus on aspects of interest to psychologists: cognitive, intellectual, personality, and biological changes across adult development.</td>
</tr>
<tr>
<td>PSY 355</td>
<td>DEVELOPMENTAL PSYCHOPATHOLOGY</td>
<td>Survey of developmental theory and research related to the psychopathology of infants, children, and adolescents. Focus is on etiology, identification, and intervention.</td>
</tr>
<tr>
<td>PSY 361</td>
<td>PERSONALITY</td>
<td>Introduction to the study of personality through analysis of such major theories as those of Freud, Skinner, Maslow, and Rogers. The development of personality and the stability of personality characteristics over time. Review of clinical and experimental findings.</td>
</tr>
<tr>
<td>PSY 363</td>
<td>ABNORMAL PSYCHOLOGY</td>
<td>Patterns of disordered behavior; social, psychological, and physiological factors; theoretical explanations of abnormal behavior.</td>
</tr>
<tr>
<td>PSY 364</td>
<td>PSYCHOTHERAPY</td>
<td>Survey of current types of psychotherapy. Emphasis on similarities and differences in underlying theories of behavioral change and associated techniques.</td>
</tr>
<tr>
<td>PSY 366</td>
<td>HEALTH PSYCHOLOGY</td>
<td></td>
</tr>
</tbody>
</table>
Explores psychological research, theory, and techniques in health-related areas, such as health promotion, the identification of contributors to illness, illness prevention, stress and coping, stress management, changing health beliefs and behavior, pain and its management, and the management of chronic and terminal illnesses.

**PSY 368 COMMUNITY PSYCHOLOGY**

The application of psychological principles to the understanding and prevention of prevalent community problems including teen pregnancy, school violence, mental illness, substance abuse, homelessness and poverty.

**Prerequisite(s):** PSY 101.

**PSY 375 PSYCHOLOGY OF THE ARTS**

Explores the psychological experiences associated with the creation and appreciation of music, art, and literature. Course content is presented in terms of the theories, methods, and research findings in the fields of perception, cognition, and development.

**PSY 410 QUESTIONNAIRE DESIGN**

Students will learn about critical issues in questionnaire design and use, the advantages/disadvantages of questionnaires, types of questionnaires, questionnaire development strategies, scale selection, and how to evaluate questionnaires. Students will develop, test and evaluate a questionnaire in a domain of interest to them. Depending on the size of the effort, students may work in teams.

**PSY 422 PHYSIOLOGICAL PSYCHOLOGY**

Neuropsychological analysis of attention, sensation, perception, emotion, motivation, and learning. Electrophysiological methods are discussed.

**Prerequisite(s):** PSY 101.

**PSY 431 INTERVIEWING AND COUNSELING**

Integrated approach to the theory, techniques, skills, and values of interviewing and counseling. Practice through written assignments, self study, classroom exercises, and role-playing.

**Prerequisite(s):** PSY 101.

**PSY 435 HUMAN FACTORS**

Essential psychological concepts and methods to improve use of human efforts and equipment. Principles governing design of equipment for human use.

**Prerequisite(s):** PSY 101.

**PSY 443 PSYCHOLOGY OF WOMEN**

Survey of topics related to the psychology of women, such as gender identity and roles, theories of female development, relationships, achievement, language, health issues, spirituality, sexuality, and violence.

**Prerequisite(s):** PSY 101.

**PSY 444 ENVIRONMENTAL PSYCHOLOGY**

Study of the effects of the physical and social environment on human behaviors, attitudes, and affective responses.

**Prerequisite(s):** (PSY 101, 341) or permission of instructor.

**PSY 445 TECHNOLOGY, ENVIRONMENT, AND BEHAVIOR**

Examines the cultural bases for the individual and societal choices which humans make about their use of technology. Technology is broadly defined to include human-machine systems.

**PSY 450 PSYCHOLOGY FOR MINISTRY**

Human development and adjustment, interpersonal communication, and the psychology of religion.

**Prerequisite(s):** Acceptance into the Lay Ministry Program or permission of instructor.

**PSY 451 PSYCHOLOGY OF RELIGION**
Addresses the psychological study of the nature of religion and religious experience; explores the development of internalized beliefs, attitudes, and values and the effect they have on individual functioning. An introductory course in psychology is highly recommended. 

**Prerequisite(s):** Junior or senior standing.

**PSY 452 COGNITIVE DEVELOPMENT IN CHILDREN**

Major approaches to the study of cognitive development; attentional and mediational development in children's learning, memory, and problem solving; language development and Piaget's theory.

**Prerequisite(s):** (PSY 101, 351) or permission of instructor.

**PSY 457 TELEVISION AND ITS EFFECTS ON CHILDREN**

Readings in psychological research on the broad effects of television on children. Emphasis on analyzing and evaluating the research.

**Prerequisite(s):** PSY 101.

**PSY 461 CURRENT IMPLICATIONS OF DRUG DEPENDENCY**

Survey of effects, symptoms, treatment, causalities, and myths associated with drug use and abuse. Emphasis on existing treatment methods and psychological implications of drug dependency.

**Prerequisite(s):** PSY 101.

**PSY 462 HUMAN SEXUALITY**

Psychological factors in human sexuality including developmental, biological, and social perspectives. Such topics as sexual orientation, gender identity and roles, sexual relationships, sexual dysfunction, power and violence, and commercialization.

**PSY 471 HISTORY OF PSYCHOLOGY**

The evolution of psychology from its origins in philosophy, science, clinical, and applied settings. Emphasis on integrating these systems and schools of thought with modern psychology.

**Prerequisite(s):** PSY 101 or permission of instructor.

**PSY 477 HONORS THESIS PROJECT**

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**PSY 478 HONORS THESIS PROJECT**

Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**PSY 490 INTERNSHIP IN PSYCHOLOGY**

Supervised experience arranged on an individual basis in appropriate settings. For junior or senior psychology majors who have completed prescribed course work only. Consult internship director for details. May be repeated up to six semester hours. Grade Option Two only.

**PSY 493 INDEPENDENT STUDY**

Problems of special interest investigated under faculty direction. Area and criteria for evaluation to be specified prior to registration. May be repeated up to six semester hours.

**Prerequisite(s):** Permission of instructor.
PSY 494  READINGS IN PSYCHOLOGY  1 - 6
Directed reading in a specific area of interest, under faculty supervision. Topic and criteria for evaluation to be specified prior to registration. May be repeated up to six semester hours. **Prerequisite(s):** Permission of instructor.

PSY 495  SPECIAL TOPICS IN PSYCHOLOGY  1 - 3
Topics of special interest to faculty and students; intensive critical evaluation of appropriate literature. **Prerequisite(s):** Permission of instructor.

PSY 497  SERVICE LEARNING EXPERIENCE  1
Supervised community research or service experience that complements a specific upper division course in Psychology. Repeatable up to three semester hours. **Corequisite(s):** A 300-400 level Psychology course.
College of Arts and Sciences

(REL) Religious Studies (Collapse Description)

The Department of Religious Studies sees itself as a community of scholars serving the University community and the local community by teaching, research, criticism, and action. The main concern of the department is an understanding and elucidation of the Judaeo-Christian religious experience as it is exemplified in the Roman Catholic tradition. This implies not only a deep investigation of the Roman Catholic position but also a dialogue with other Christian denominations and with other world religions.

Students majoring in religious studies ordinarily follow one of five tracks in the major. Students preparing for ministry in a Christian church (e.g., pastoral associates, youth ministry, parish religious educators) follow the "Ministry" track. Students preparing to teach religion in elementary or secondary schools follow the "Catholic Schools" track. Students preparing for graduate study in Christian theology, systematics, church history, ethics, etc., follow the "Graduate School Preparation" track. Students preparing for graduate study of religions other than Christianity and/or interested in world religions follow the "World Religions" track. Students wishing to study religion as a way of broadening their horizons or who are interested in religious studies as an undergraduate major follow the "General" track. All religious studies majors must show basic practical communicative proficiency in one foreign language.

A minor in religious studies consists of eighteen semester hours.

Faculty

Sandra Yocum Mize, Chairperson
Distinguished Service Professor: Kohmescher
Distinguished Teaching Professor: Burns
Professors Emeriti: Anderson, Buby, Friedland, Hater
Professors: Barnes, Branick, Doyle, Heft, Portier, Roberts, Zukowski
Associate Professors: Lysaught, Martin, Thimm, Yocum Mize
Assistant Professors: Johnson, Kallenberg, Kozar, McGrath, Moore, Smith

Majors/Minors (Collapse All)

Major/Minor Name

Bachelor of Arts with a major in Religious Studies (REL)

Sem. Hrs.

Religious Studies 36
REL (103 or 198) 3
At least nine semester hours (400-level, includes REL 490) 9

Tracks

Ministry 30
REL 315, (323 or 324), 360, 437, 440, 443, 485 21
Select one course in Old Testament; one course in world religions; one course in religion and culture 9

Catholic Schools 30
REL (323 or 324), (327 or 328 or 329), 360, (383 or 487) 12
Select one course in Old Testament; one course in New Testament; two courses in systematic theology; one course in world religions; one course in religion and culture 18
Graduate School Preparation

REL 323, 324, 437, (440 or 443)  
Select one course in Old Testament; one course in New Testament; one course in ethics; one course in world religions; one course in religion and culture; one additional course in systematic theology

World Religions

REL (323 or 324)  
Select three courses from:  
REL 304, 305, 306, 307, 308  
Select one course in Old Testament; one course in New Testament; one course in ethics; one course in systematic theology; one course in religion and culture  
REL elective

General

Select one course in Old Testament; one course in New Testament; one course in world religions; one course in church history; one course in systematic theology; one course in ethics; one course in religion and culture  
Religious Studies electives

Liberal Studies Curriculum

Humanities and Fine Arts

Philosophy  
History  
Literature: English or Foreign Language  
Creative and Performing Arts  
Foreign Language and/or Additional Arts and/or Humanities  
Social Sciences  
Mathematics (excludes MTH 102, 204, 205)  
Natural Sciences

Communication Competencies

Introduction to the University: ASI 150

General Education courses/academic electives to total at least 124

1 Or equivalent course.

2 Basic proficiency in a foreign language may require additional elective hours in language/humanities/arts. Students who demonstrate basic practical communicative proficiency in a foreign language without taking college courses in language must complete an additional three semester hours of elective courses from a foreign language and/or arts and/or humanities.

Minor in Religious Studies (REL)

Religious Studies

Select eighteen semester hours1

1 At least three semester hours are to be at the 400-level.

Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 103</td>
<td>INTRODUCTION TO RELIGION</td>
<td>3</td>
</tr>
</tbody>
</table>
Examination of the nature of religion, comparative aspect of religion, and the function of religion as a source of interpretation of life. The "Catholic Option" takes the majority of its perspectives and examples about religious beliefs and practices from the Roman Catholic tradition. The "Scripture Option" takes the majority of its perspectives and examples about religious beliefs and practices from scriptural traditions.

**REL 198  RELIGIOUS STUDIES SCHOLARS' SEMINAR**

Study and seminar discussion of major types of religions in history and some of their practices, values, beliefs, historical development, and theological reflection, including Catholic tradition; review of major theories on the nature, origin, and function of religion in human life. Open by permission only to first-year students in the Berry Scholars Program.

**REL 281  FORUM FOR CATECHEtical LEADERS I**

Study of key themes of The National Directory for Catechesis regarding "The Tasks of Catechesis and Faith Formation". Themes include (a) Introduction to the Catechetical Ministry of the Church, (b) The Vocation of the Catechist, (c) Faith Formation, and (d) Fundamentals for Designing Catechetical Plans.  
**Prerequisite(s):** ASI 111 or REL 103.

**REL 282  FORUM FOR CATECHEtical LEADERS II**

Study of key themes of The National Directory for Catechesis regarding "The Art of Communicating Faith: Scripture and Tradition". Themes include (a) Effective Catechesis, (b) Four Pillars of Our Catholic Faith, (c) Integrating Scripture in Catechetical Ministry, and (d) Integrating Liturgy and Liturgical Experiences in Catechetical Ministry.  
**Prerequisite(s):** ASI 111 or REL 103.

**REL 283  FORUM FOR CATECHEtical LEADERS III**

Study of key themes of The National Directory for Catechesis regarding: "Liturgy, Popular Devotions, Literature and the Religious Imagination". Themes include (a) Storytelling, (b) Popular Devotions and Faith Experiences, (c) Role of Mary in Catechesis, and (d) Diverse Religious Traditions and the Quest for God.  
**Prerequisite(s):** ASI 111 or REL 103.

**REL 284  FORUM FOR CATECHEtical LEADERS IV**

Study of key themes of The National Directory for Catechesis regarding: "Discipleship (Catholic Moral Life), Catholic Social Teachings and Catechetical Planning". Themes include (a) Developing a Pastoral Catechetical Plan, (b) Call and Challenge of Discipleship, (c) Catholic Social Teachings, and (d) Communications Technology and Catechesis.  
**Prerequisite(s):** ASI 111 or REL 103.

**REL 304  HINDUISM**

Study of the world's oldest living religion. Examines the historical development of major Hindu teachings, texts, practices and paths from ancient times to present, including forms of Hinduism taking root in the West today.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 305  EASTERN ORTHODOXY**

Exploration of the history and theology of the Eastern Orthodox Church, from the Apostles to Byzantium to Russia and the United States.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 306  BUDDHISM**

Exploration of the 2,500-year-old Buddhist tradition - the life of its founder, development of its teachings, rituals, and meditation techniques. Survey of the spread of Buddhism to the West in the twentieth century. Parallels and contrasts with the Christian tradition.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 307  JUDAISM**
Basic introduction to Judaism: its history, its faith, its worship.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 308 ISLAM**  
Exploration of the Islamic religious traditions: the life of Islam's founder, the development of its teaching and ritual, its spread from North Africa into Europe, Asia, Oceania, its influence on culture and its contemporary resurgence.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 309 AFRO-LATIN RELIGIONS**  
The study of Voudou, Santeria and other religions which arose when the religious traditions of West Africa were transplanted to the Americas and the Caribbean where practitioners encountered Christianity. These religions' historical and contemporary forms as well as issues of syncretism and church-state relations are considered.  
**Prerequisite(s):** (ASI 111 or REL 103 or 198).

**REL 310 THE PENTATEUCH**  
Examination of the first five books of the Hebrew Bible, known as the Torah or Pentateuch, emphasizing the traditions that relate primeval beginnings, ancestral history, the exodus, wilderness wanderings, and the legal codes.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 311 THE PROPHETS**  
The prophetic texts of the Old Testament studied as reformulations of ancient religious traditions to meet new historical situations. The relevance of the prophets to contemporary life and throughout.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 312 THE PSALMS AND THE WISDOM LITERATURE**  
Critical examination of the biblical books of Psalms, Proverbs, Job, Ecclesiastes, and Ben Sira and of related literature within the historical context in which they arose. The contemporary relevance of this literature.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 315 THE GOSPELS**  
With the Gospel of Mark as a point of departure, comparison of the Markan, Matthean, and Lukan narratives for an understanding of the various conceptions of Jesus found in these Gospels. The course includes historical-critical study of the Gospel to John, its text, literary techniques, structure and theology.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 316 NEW TESTAMENT THEOLOGIES**  
A survey of New Testament writings with a focus on the religious ideas specific to each; special attention to authors' christology, eschatology, and soteriology; exploration of relevance of the New Testament message to Christian faith today.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 318 STUDIES IN PAUL**  
Detailed examination of the letters of Paul, stressing the historical circumstances affecting their composition as well as the main religious ideas of Paul that govern their content.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 319 THE BOOK OF REVELATION**  
Detailed critical analysis of various biblical apocalyptic texts as found in Judaism and early Christianity. Focus on the Book of Revelation against the background of other biblical and intertestamental apocalyptic texts.  
**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 323 HISTORY OF CHRISTIANITY I (100-1100)**  
Study of important events movements, ideas, and people in the development of Christianity to the year 1100 including the formation of the Canon, early Church councils, Augustine, Gregory the Great, monasticism, the rise of
Islam, Eucharistic and other controversies, and the Gregorian Reform.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 324** HISTORY OF CHRISTIANITY II (1100-PRESENT)

Study of important events, movements, ideas, and people in the development of Christianity from 1100 to the present, including the separation of the Churches of the East and West, rise of the mendicant orders, Scholasticism, key themes and figures of the Reformation, Vatican I, Modernist crisis, ecumenism, and Vatican II.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 326** PROTESTANT CHRISTIANITY

Survey of the development of Protestant thought from the Reformation.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 327** U.S. RELIGIOUS EXPERIENCE

A study of a variety of religious traditions in their engagement with and influence within the U.S. social and cultural context including the effects of pluralism, religious liberty, secularization, and consumer capitalism.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 328** U.S. CATHOLIC EXPERIENCE

The growth and development of Catholic Christianity in the U.S.; its interaction with America, its culture, and its people.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 329** AFRICAN-AMERICAN RELIGION

An exploration of the history and theology of African-American religious traditions and how African-American religion has influenced African-American social, political, economic, and cultural movements from the time of slavery to the present.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 344** CHRISTIAN MARRIAGE

Analysis of the sanctifying dignity of Christian marriage as a sacrament and commitment to share in the divine creative plan.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 356** THE CHRISTIAN TRADITION OF PRAYER

Study of several types and forms of Christian prayer from various periods in Church history. The meaning of the act of faith expressed in prayer and its relationship to belief.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 358** LIBERATION THEOLOGY

A historical-critical analysis and study of the theology of liberation and its specific expression among theologians of the Third World, particularly Latin America.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 360** CHRISTIAN ETHICS

Introduction to the reflection upon Christian morality; discussion of various approaches in Christian ethics, the elements of ethical judgments, and some specific ethical issues.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 362** CHRISTIAN FAMILY VALUES AND TELEVISION

Comparative study of the criteria and rationale for family life in various Christian pronouncements with present values and practices in society as reflected in and promoted by current television programming.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 363** FAITH AND JUSTICE

This course explores the history, development, and basic principles of Catholic social teaching as well as other approaches to faith and justice. Issues of economic justice will receive special emphasis. In addition to church documents, the life and work of religious thinkers and activists will be
REL 364 CURRENT MORAL ISSUES
An examination of one or more issues (individual and/or social) in contemporary reflection on Christian moral life. May be repeated when topic changes.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 365 CHRISTIAN ETHICS AND THE ENVIRONMENT
A Christian ethic of relationality and responsibility. Explores various approaches and related values found in society; elements of ethical judgments; and specific ethical issues resulting from ecofeminist, technological, and ecological awareness.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 366 THE HOLOCAUST: THEOLOGICAL AND RELIGIOUS RESPONSES
Examination of the religious and theological literature of the Holocaust, focusing especially on Jewish and Christian responses.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 367 CHRISTIAN ETHICS AND HEALTH CARE ISSUES
Study of, and reflection upon, the principles of Christian ethics as these relate to the health care professions.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 368 CHRISTIAN ETHICS AND THE BUSINESS WORLD
Study of, and reflection upon, the principles of Christian ethics as these relate to the business world.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 369 CHRISTIAN ETHICS AND ENGINEERING
Study in applied Christian ethics addressing the moral issues facing engineers. How to make a moral decision, engineering as a profession, codes of ethics, safety, environmental issues, confidentiality, employee rights, whistleblowing, consulting, conflicts, and career choices.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 372 RELIGION AND FILM
Study of issues common to narrative films and religious thought: the power of various film techniques, dominant models in religious and film reflection, the similar roles imagination plays in film and religious thought.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 373 RELIGION AND LITERATURE
Joint study of literature and religion, seeking the sacred in the secular, discussing the doctrines of humans and of God in major modern writings, especially those of current collegiate interest.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 374 RELIGION AND THE ARTS
Investigation of the religious interpretation of various art forms and the process by which the aesthetic experience assists in theological perception and construction.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 375 RELIGION AND SCIENCE
Surveys of the ways science has affected religion on specific doctrines, methods of knowing what is true, and general world views; study of religious response to these.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 376 THEOLOGY AND THE SOCIAL SCIENCES
Exploration of developments in Christian theology that have paralleled the rise of the human sciences, in particular of concepts of God, humanity, Church, sacraments, sin, and salvation in the light of history, anthropology, psychology, and sociology.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 377 THE INNER JOURNEY IN MYTH, BIBLE, AND LITERATURE
Study of stories of heroic figures in the Bible and in other literature as patterns of personal and spiritual development. Throughout, efforts to relate the material to the needs of contemporary persons.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 383 PHILOSOPHY OF RELIGIOUS EDUCATION
An attempt to construct a philosophy of religious education, various contemporary theoretical models, dimensions of teaching religion in a pluralistic society, the polarization generated.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 399 READINGS IN RELIGIOUS STUDIES
Directed readings in a specific area of interest under the supervision of a staff member. May be taken more than once. By permission only.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 425 AUGUSTINE
The life and work of Augustine of Hippo (354-430), a major theologian of Western Christianity. His influence is strongly felt in both Protestant and Catholic traditions in areas of sexual ethics, church-state relations, Trinitarian and sacramental theology.
Prerequisite(s): REL 103.

REL 429 MODERN CATHOLICISM
An examination of Modern Catholicism based on a close study of the context, process, decisions, implementation, and challenges of Vatican II in the Roman Catholic Church.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 437 SIGNIFICANCE OF JESUS
Emphasis on the identity of Jesus and on the significance that his ministry, death, and resurrection have for the salvation of humankind.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 440 THE CHURCH
A biblical and theological study of the meaning of the Church which explores the relationship between Christ and the Church, the various models for understanding the Church, and the mission of the Church.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 441 THE SACRAMENTS
A study of the meaning of sacramentality. The sacraments in the context of Christ as the sacrament of the human encounter with God and in the context of the Church as the sacrament of Christ.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 442 GOD AND ATHEISM
Study of some recent contributions made by theology, philosophy, psychology, and the humanities to the current discussion of God's existence, nature, and relationship to humanity.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 444 GOD IN CHRISTIAN TRADITION
A review of theologies of God in Christian tradition, from biblical through contemporary sources, especially as these theologies have affected overall Catholic thought and spirituality.
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198); PHL 103.

REL 446 CHRISTIAN LITURGY

Study of the basic principles of liturgy, the development of some of the basic forms of liturgy, and applications of the principles within current rites.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 447 SELECTED CATHOLIC DOCTRINES**

Detailed study of several important current theological questions primarily from a Catholic systematic and historical perspective.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 449 AQUINAS**

Theology of Aquinas including: Trinity, human nature, providence, grace, virtue, Christ, and sacraments. Some attention given to historical context and contemporary interpretation, but the main focus will be reading and understanding the *Summa*.

**Prerequisite(s):** REL 103.

**REL 471 WOMEN AND RELIGION**

Examination of the impact of the women's movement on Judaism, Christianity, and other major world religions. Survey of traditional religious attitudes toward women. Relevance of feminist approaches to scripture, ethics, spirituality, and ministry in understanding contemporary global issues.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 472 ECOLOGY AND RELIGION**

Examination of the relationship between religion and ecology; bridges the contributions of traditional theological inquiry and modern scientific insights and offers an enlarged vision of ecological concerns.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 474 WOMEN AND THE GLOBAL CHURCH**

An exploration of the intersection between faith communities, traditional and non-traditional, and particular cultures in the lives of contemporary women.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 477 HONORS THESIS PROJECT**

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**REL 478 HONORS THESIS PROJECT**

Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**REL 484 PRACTICUM**

Supervised in-service experience in an area of religious education chosen by the student. By permission only.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 485 LAY MINISTRY**

A critical examination of lay ministry and its theological basis, in light of Vatican II and recent trends in the world and Church. Special topics: family ministry, ministry in the marketplace, leadership, evangelization, catechesis, women, social justice.

**Prerequisite(s):** (ASI 111, 112 or equivalent) or (REL 103 or 198).

**REL 487 RELIGIOUS EDUCATION - THEORY AND PRACTICE**
Study of theory and practice of religious education for those who will be teaching religion in the school and parish. Various models and methods. Emphasis on process and religious education as developmental. 
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 488 SPIRITUALITY AND RELIGIOUS EDUCATION 3
Exploration of impact of liturgy and spirituality on contemporary models of religious education; study of interrelationship between faith experience and religious content; basic principles for developing practical programs. 
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).

REL 490 CAPSTONE SEMINAR 3
Study of a particular topic in religion or theology that draws upon a variety of resources in the fields. This course provides an integrative academic experience. Topic varies from semester to semester. Required of all majors, open to minors. May be repeated. 
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198); junior or senior standing.

REL 492 SPECIAL TOPICS 1-3
Concentrated study of issues and subjects pertinent to religion. May be repeated when topic changes. 
Prerequisite(s): (ASI 111, 112 or equivalent) or (REL 103 or 198).
College of Arts and Sciences
(SOC) Sociology, Anthropology and Social Work (Collapse Description)

Sociology is the scientific study of society. The unique insight of sociology is that people are who they are largely because of their social experiences and interactions with others. "The sociological imagination" is the ability to understand the relationship between the individual experience and the broader social context. In addition to studying various aspects of social behavior, sociology studies the nature and causes of social problems such as crime, marital instability, poverty, and racism. The challenge facing sociologists is to apply their knowledge in ever more constructive ways for the improvement of society.

Students intending to major or minor in sociology should consult with the department chairperson to plan their programs of courses. Majors may concentrate their studies in the fields of human relations or community relations. The requirements for majoring in sociology are stated in the outline below.

A minor in sociology consists of fifteen semester hours.

Faculty
H. Frances Pestello, Chairperson
Professors: Curran, Davis-Berman, Donnelly, L. Majka, T. Majka, Miller, F. Pestello, H. Pestello, Renzetti
Associate Professors: Adamitis, Becker, Jipson
Assistant Professors: Cheney, Haase, Leming, Picca
Lecturers: Kim, Thornton
Coordinator for Community Relations for Criminal Justice Studies: Apolito

Majors/Minors (Collapse All)

Major/Minor Name
Bachelor of Arts with a major in Sociology (SOC)

Sociology
SOC (101 or 204 or 398), 208, 303, 306, 308L, 351, 409
SOC electives
Sem. Hrs.
37
19
18

Liberal Studies Curriculum
Humanities and Fine Arts
Philosophy and Religious Studies
History
Literature: English or Foreign Language
Creative and Performing Arts
Foreign Language and/or Additional Arts and/or Humanities
Social Sciences (excludes SOC courses)
Mathematics (excludes MTH 102, 204, 205)
Natural Sciences

Communication Competencies
Introduction to the University: ASI 150

Sem. Hrs.
27-33
12
6
3
3
3-9
12
3
11
0-9
0-1
General Education courses/academic electives to total at least 124

1 A total of no more than six semester hours of field experience or internship from SOC 495, SOC 497, SWK 401, SWK 497, ANT 449, or ANT 497 may count toward the required thirty-seven semester hours for a sociology major. Up to nine hours total may be taken in anthropology and/or social work for a sociology major. These hours may also be used toward the completion of a minor.

Minor in Anthropology (ANT)

Anthropology is the study of people at all times and places. It emphasizes understanding total cultural systems. A minor in anthropology consists of fifteen semester hours. Students intending to minor in anthropology should consult with the department chairperson to plan their selection of courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 150</td>
<td>CULTURAL ANTHROPOLOGY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Basic principles of cultural anthropology. Survey of human adaptation to and adjustment of the environment by means of culture; comparison of ways of life among peoples of the world for inferences toward understanding human behavior. Required for anthropology minors.</td>
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</tbody>
</table>

Minor in Social Work (SWK)

Social work is the profession sanctioned by society to provide social services. It is the professional activity of helping individuals, groups, or communities to enhance or restore their capacity for social functioning. The profession also engages in activities aimed at facilitating societal conditions that enhance and/or restore social functioning.

A minor in social work consists of fifteen semester hours.

1 No more than six semester hours of field experience credit can be accepted toward the minor.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td></td>
<td>Select fifteen semester hours</td>
<td>15</td>
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</table>

1 At least twelve semester hours at the 300- or 400-level.

Minor in Sociology (SOC)

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td></td>
<td>Select fifteen semester hours</td>
<td>15</td>
</tr>
</tbody>
</table>

1 At least twelve semester hours at the 300- or 400-level.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 150</td>
<td>CULTURAL ANTHROPOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>ANT 300</td>
<td>EVOLUTION OF PEOPLE AND CULTURE</td>
<td>3</td>
</tr>
<tr>
<td>ANT 306</td>
<td>CULTURE AND POWER</td>
<td>3</td>
</tr>
</tbody>
</table>

Survey of human biological and cultural evolution from prehuman ancestors to settled city-states. Consideration of contemporary peoples at various levels of social complexity.

Exploration of how culture and power are intertwined in the process of transformation of cultural beliefs and practices around the world. Focus on the ways in which anthropologists have studied modern state formation, and the attendant cultural politics, in local, regional, national, and international contexts.
Prerequisite(s): ANT 150.

ANT 310 CULTURE AND PERSONALITY 3
Survey of studies investigating the relationship between cultural environment and the individual. Material drawn from both literate and nonliterate societies.

ANT 315 LANGUAGE AND CULTURE 3
Introduction to the scientific study of language and its relationship to other aspects of human behavior.

ANT 335 URBAN ANTHROPOLOGY 3
Survey of anthropology research on urban issues. Considers how cities arose and how urban people make a living, organize, and think. Considers urban futures.

ANT 352 CULTURES OF LATIN AMERICA 3
Origin and development of ancient civilizations including the Aztec, the Maya, and the Inca. Survey of contemporary cultures, with special emphasis on peasant life.

ANT 360 CULTURES OF SOUTH ASIA 3
Examination of South Asia through the lens of anthropology. Explores the postcolonial era, South Asia's dynamic religious traditions, the study of caste, "Bollywood" and popular cultures, Hindu nationalism, and the South Asian diaspora in the West.

ANT 366 IMMIGRATION AND IMMIGRANTS 3
Perspectives on immigration and ethnicity. Studies of social and economic adaptation of new immigrants and the second generation in communities, cities, and societies. Ethnic change, conflict, and contemporary national and international issues, with an emphasis on human rights. (Same as SOC 368.)
Prerequisite(s): (SOC 101 or 204) or ANT 150.

ANT 362 SPECIAL TOPICS IN ANTHROPOLOGY 1-6
Intensive examination of current thematic, theoretical, or methodological issues from the viewpoint of anthropology. May be repeated as topics change.
Prerequisite(s): ANT 150; permission of instructor.

ANT 449 ANTHROPOLOGICAL FIELD WORK 1-6
Formulation and carrying out of a research design in archaeology, physical anthropology, linguistics, or cultural anthropology
Prerequisite(s): Permission of instructor.

ANT 477 HONORS THESIS PROJECT 3
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approval of University Honors Program.

ANT 478 HONORS THESIS PROJECT 3
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approved 477 and approval of University Honors Program.

ANT 497 SERVICE LEARNING EXPERIENCE 1
Supervised community research or service experience that complements a specific upper division course in Anthropology. Repeatable up to three semester hours.

**Prerequisite(s):** Permission of instructor.

**Corequisite(s):** A 300-400 level Anthropology course.

**ANT 498 INDEPENDENT STUDY**

Research problems or readings of special interest investigated under the guidance of an anthropology staff member.

**Prerequisite(s):** Permission of department chairperson.

**SOC 101 PRINCIPLES OF SOCIOLOGY**

Study of social groups, social processes, and society; the individual's relationship to society, social structure, social inequality, ethnic minorities, cities and human populations, and social institutions such as the family, education, religion, and government.

**SOC 204 MODERN SOCIAL PROBLEMS**

Course to familiarize nonsociology majors with contemporary problems in society; historical development, current status, and analysis of problems, using modern social theories. Content may vary from section to section.

**SOC 204L URBAN PROBLEMS LABORATORY**

Field study of selected urban problems. Focus on issues and problems of inequality, i.e., poverty, unemployment, discrimination, and homelessness as experienced by members of the urban community.

**Corequisite(s):** SOC 204.

**SOC 208 SOCIAL RESEARCH METHODS**

Study of the logic of research design, data-gathering strategies, types of measurement, and sampling techniques. Both inductive and deductive approaches. Participation in research projects.

**Prerequisite(s):** SOC 101 or 204.

**SOC 303 MODERN SOCIAL THEORY**

Consideration of the works of modern theorists and major trends in the history of social thought.

**Prerequisite(s):** SOC 101 or 204.

**SOC 305 CRIMINOLOGICAL THEORY**

Study of the major theories of crime; consideration of the implications of theory for the criminal justice system.

**Prerequisite(s):** SOC 101 or 204

**SOC 308 DATA ANALYSIS**

The analysis and interpretation of both quantitative and qualitative social science data.

**Prerequisite(s):** SOC 208.

**Corequisite(s):** SOC 308L.

**SOC 308L DATA ANALYSIS LABORATORY**

Training in appropriate computer programs and computer analysis of social science data.

**Prerequisite(s):** SOC 208.

**Corequisite(s):** SOC 308.

**SOC 309 COMMUNITY PRACTICE AND RESEARCH**

Study of the design and implementation of community research, including needs assessment and program evaluation in the social service system. (Same as SWK 303.)

**Prerequisite(s):** SOC 101, 204; permission of instructor.

**SOC 321 THE SOCIOLOGY OF WORK AND OCCUPATIONS**

Survey of the major features of work and occupations in industrial society. The meaning of work, occupational choice and recruitment, occupational socialization, career patterns, and occupational rewards. Unemployment, underemployment, sex-typing, automation and alienation.
SOC 322  SEX ROLES AND SOCIETY
Research findings and major analytical approaches to study social and cultural influences on the development of personal sexual identity and relationships between men and women. Major social issues concerning human sexuality.

SOC 323  JUVENILE JUSTICE
The environmental and internal factors that influence or determine delinquent behavior; roles of individual juvenile offenders, parents or guardians, school, church, police, business community, community agencies, and the juvenile justice and correctional system in preventing and treating delinquent behavior.
Prerequisite(s): SOC 101 or 204.

SOC 325  DEVIANT BEHAVIOR
Description of various types of deviant behavior; for example, mental illness, alcoholism, drug addiction, the professional criminal. Study of explanations for the consequences and the role of deviant behavior in modern society.
Prerequisite(s): SOC 101 or 204.

SOC 326  LAW AND SOCIETY
Study of the legal system and practices from a sociological point of view; the historical origin and role of the law in society, issues relating to the law as an instrument of social control and/or social change; analysis of the legal profession.

SOC 327  CRIMINOLOGY
Social and cultural nature, origin, and development of law; criminal behavior; crime control. The influence of society in the creation and organization of legal and crime control systems. Biological, psychological, and sociological factors leading to criminal behavior.
Prerequisite(s): SOC 101 or 204.

SOC 328  RACIAL AND ETHNIC MINORITIES
Study of the major immigrant and racial groups in the United States and other countries. Issues and problems related to their minority status in the dominant culture.

SOC 330  PERSPECTIVES ON AGING
An introduction to the field of gerontology. Focus on the major physical, psychological, and social dynamics of aging. Selected issues will be highlighted. (Same as SWK 330.)

SOC 331  MARRIAGE AND THE FAMILY
Historical, cross-cultural, and current study of social relationships during dating and courtship, interpersonal communication in marriage and family life, sexuality in marriage, adjustments in parenthood, divorce and remarriage, alternatives to traditional marriage, and the future of marriage and family life.

SOC 332  SOCIOLOGY OF WOMEN
Cross-societal analysis of the position of women, with emphasis on industrialized and developing societies. The social positions of women and men in the family, work, politics, and the legal system. Consideration of theories of the biological, psychological, and sociological bases for the behavior and characteristics of women in the context of societal institutions.

SOC 333  SOCIOLOGY OF SEXUALITIES
Examination of theoretical and conceptual issues, empirical research and social policies germane to the sociological study of human sexuality. Topics include: sexual identity and orientation; sexuality throughout the life-course; sexual assault and coercive sexuality; social control of sexuality; social locations (race, class, and gender) and sexuality; and the relationship between sexuality and the socio-political process.
Prerequisite(s): SOC 101 or 204.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 334</td>
<td>RELIGION AND SOCIETY</td>
<td>3</td>
<td>Definitions of religion and its role in society. Traditional and nontraditional expressions of religious life from the viewpoint of society. Varieties of religious experience and the interrelations between religious phenomena and other social institutions and societal behavior. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 336</td>
<td>ORGANIZATIONS IN MODERN SOCIETY</td>
<td>3</td>
<td>Analysis of the dynamics of organizations in modern industrial society. Organizational social psychology, organizational structure and process, and organization-community relations. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 337</td>
<td>POLITICAL SOCIOLOGY</td>
<td>3</td>
<td>Study of political power. Political influence by economic elites, impact of bureaucracies, competing ideologies, alienation and nonvoting, and social movements as challenges to power structures. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 339</td>
<td>SOCIAL INEQUALITY</td>
<td>3</td>
<td>Study of social inequality in society. Emphasis on the processes that divide people into unequal groups based on wealth, status, and power. The effects of inequality on individual life chances and life styles.</td>
</tr>
<tr>
<td>SOC 340</td>
<td>SOCIAL PSYCHOLOGY IN SOCIETY</td>
<td>3</td>
<td>Survey of the basic principles, concepts, theories, and methods of social psychology from the sociological perspective. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 341</td>
<td>SELF AND SOCIETY</td>
<td>3</td>
<td>Study of the relationship between self and others. Socialization, self conceptions, deviant behavior, social influence, and social control.</td>
</tr>
<tr>
<td>SOC 342</td>
<td>COLLECTIVE BEHAVIOR</td>
<td>3</td>
<td>Study of social protest, crowds, social movements, revolution, fads, fashion, public opinion processes, propaganda, and political and social responses to these phenomena. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 343</td>
<td>MASS COMMUNICATION IN MODERN SOCIETY</td>
<td>3</td>
<td>Social-psychological analysis of the structure and processes of mass communication related to advertising, patterns of social behavior, social change, propaganda, censorship, media control, and social institutions.</td>
</tr>
<tr>
<td>SOC 344</td>
<td>INTERACTION PROCESSES</td>
<td>3</td>
<td>Study of the interaction processes of social life. Bargaining and negotiation, cooperation, social influence, solidarity, competition, and conflict. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 345</td>
<td>SOCIOLOGY OF EXTREMISM</td>
<td>3</td>
<td>Study of the social understanding and social construction of identity, otherness, difference, and extremism in such cases as the development of white racial extremism in the United States. Prerequisite(s): SOC 101 or 204.</td>
</tr>
<tr>
<td>SOC 346</td>
<td>CRIME, FILM, AND SOCIETY</td>
<td>3</td>
<td>This course will examine the portrayal of crime and justice in feature length films and how these films influence how our society views issues related to crime. The primary focus will be on the American criminal justice system (law enforcement, courts, and corrections) and the broader topic of justice. Prerequisite(s): (SOC 101 or SOC 204 or CJS 101) or permission of instructor.</td>
</tr>
<tr>
<td>SOC 351</td>
<td>URBAN SOCIOLOGY</td>
<td>3</td>
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</tbody>
</table>
The study of the development of urban life from ancient times to the present, with an emphasis on contemporary urban population characteristics, social-economic-political structure, and problems. 

**Prerequisite(s):** SOC 101 or 204.

**SOC 352 COMMUNITY**

Study of the interaction of groups and individuals related by common situations, problems and intentions; creation, maintenance, eclipse, and restoration of close social ties in urban neighborhoods, small towns, and groups with similar interests and lifestyles.

**SOC 355 FAMILIES AND THE ECONOMY**

The relationship between families and their socio-economic environment. Consideration of public issues including family policy and government programs to assist families.

**Prerequisite(s):** SOC 101 or 204.

**SOC 358 IMMIGRATION AND IMMIGRANTS**

Perspectives on immigration and ethnicity. Studies of social and economic adaptation of new immigrants and the second generation in communities, cities, and societies. Ethnic change, conflict, and contemporary national and international issues, with an emphasis on human rights. (Same as ANT 368.)

**Prerequisite(s):** (SOC 101 or 204) or ANT 150.

**SOC 371 SOCIOLOGY OF HUMAN RIGHTS**

Examination of theories, research, and social policies pertinent to the sociological study of human rights. Topics include: progress and challenges in the evolution and application of human rights norms; global stratification, poverty and human development; social locations (race, class, gender, and age) and human rights; the relationship between human rights and development; and social movements and human rights promotion.

**Prerequisite(s):** (SOC 101 or 204) or permission of instructor.

**SOC 392 SELECTED TOPICS IN SOCIOLOGY**

Examination of a current topic of general interest in sociology. Majors and nonmajors may enroll. Consult composite for topics. May be repeated as topic changes.

**Prerequisite(s):** SOC 101 or 204.

**SOC 394 POPULAR CULTURE IN SOCIETY**

Introduction to an understanding of the collective behavior and structured activities of the popular culture and entertainment industry, the nature of musical choice, television, radio, Internet, genres and styles, distribution, performance, and the social construction of culture from a sociological perspective.

**Prerequisite(s):** SOC 101 or 204.

**SOC 398 SOCIAL SCIENCE SCHOLARS' SEMINAR**

Study and seminar discussion of selected sociological writings and the analysis, interpretation and criticism of these works. Open only to students in the Berry Scholars Program.

**Prerequisite(s):** ENG 198; HST 198.

**SOC 409 SENIOR SEMINAR IN SOCIOLOGY**

Synthesis of previous coursework; examination of the logic of social inquiry through the analysis of competing sociological perspectives on a particular issue. Required for majors.

**Prerequisite(s):** SOC 303, 308, 308L.

**SOC 410 VICTIMOLOGY**

The study of victimization including the relationships between victims and offenders, the interactions of victims and the criminal justice system and other social groups and institutions.

**Prerequisite(s):** SOC 101 or 204; 12 hours of course work in the social sciences.
Investigation of the processes by which urban neighborhoods develop themselves from the inside out. Students cultivate their own interdisciplinary appreciation of urban communities through extensive interaction with one neighborhood's visioning process. Topics include asset-based community development, social capital, citizenship, adaptive leadership, and community building strategies and tools. Same as POL 426.

**Prerequisite(s):** Junior standing.

**SOC 435 ECONOMY AND SOCIETY**  
3  
Sociological analysis of modern economic institutions, with an emphasis on classical themes. Topics include capitalism, industrialism and social consequences of contemporary economic trends. Empirical research will be required.

**Prerequisite(s):** SOC 101 or 204; permission of instructor.

**SOC 437 MARX AND SOCIOLOGY**  
3  
Study of Marx's writings on topics relevant to the social sciences. Comparison of contemporary Marxian scholarship in such areas as social inequality, political structures, urban change, ideology and consciousness, and models for the future.

**Prerequisite(s):** SOC 101 or 204; junior or senior standing.

**SOC 438 URBAN POVERTY**  
3  
Study of the social factors that contribute to poverty in cities. Consideration of the social effects of government and other programs to alleviate poverty.

**Prerequisite(s):** SOC 101 or 204.

**SOC 477 HONORS THESIS PROJECT**  
3  
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**SOC 478 HONORS THESIS PROJECT**  
3  
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**SOC 492 SPECIAL TOPICS IN SOCIOLOGY**  
1-6  
Intensive examination of current theoretical or methodological issues; faculty-advised research project or library work. Consult composite for topics. May be repeated as topic changes.

**Prerequisite(s):** SOC 101 or 204; permission of instructor.

**SOC 495 SOCIOLOGY INTERNSHIP**  
1-6  
Supervised work experience related to course work in sociology in appropriate government, social service, and private organizations. May be repeated to a maximum of six semester hours.

**Prerequisite(s):** Permission of department chairperson.

**SOC 497 SERVICE LEARNING EXPERIENCE**  
1  
Supervised community research or service experience that complements a specific upper division course in Sociology. Repeatable up to three semester hours.

**Prerequisite(s):** Permission of instructor.

**Corequisite(s):** A 300-400 level Sociology course.

**SOC 498 INDEPENDENT STUDY**  
1-6
Research or special readings on problems of interest to the student under the guidance of sociology staff member.

Prerequisite(s): Permission of department chairperson.

SWK 201 SOCIAL WORK PRACTICE AND PROFESSION
3
Study of the historical and theoretical underpinnings of the social work profession. Study of social work practice theory and technique.

SWK 303 COMMUNITY PRACTICE AND RESEARCH
3
Study of the design and implementation of community research, including needs assessment and program evaluation in the social service system. (Same as SOC 309.)

Prerequisite(s): SOC 101 or 204; permission of instructor.

SWK 305 SOCIAL SERVICES IN THE HEALTH FIELD
3
The role of social services in health care facilities and governmental health programs. U.S. health care policies and programs; methods of social work intervention in medical settings.

SWK 307 MENTAL HEALTH SERVICES
3
Study of historical perspectives, deinstitutionalization, the community mental health movement, inpatient care, and innovative approaches. Policy and practice implications are examined.

SWK 310 LAW AND HUMAN SERVICES
3
Orientation to the legal system as it affects the provision of human services and the profession; social legislation and court decisions as they affect child welfare, public assistance, mental health, housing, and probation and parole services.

SWK 325 CHILD ABUSE
3
Comprehensive study of child abuse: its history, scope, causal factors, indicators for detection, treatment resources and modalities, and community responsibility.

SWK 327 PARENTING: SOCIAL WELFARE ROLE
3
Comprehensive study of historical and contemporary perspectives on parenting, future of parenting (assessing trends and choices in family structure and function), cross-cultural comparisons, policy and legal aspects of parenting, societal influences on parenting.

SWK 330 PERSPECTIVES ON AGING
3
An introduction to the field of gerontology. Focus on the major physical, psychological, and social dynamics of aging. Selected issues will be highlighted. (Same as SOC 330.)

SWK 331 DEATH, DYING, AND SUICIDE
3
Study of the phenomena of death and dying. The role and responsibility of the professional in working with the dying and their survivors. Study of suicide in this society.

SWK 392 SPECIAL TOPICS
1-3
Exploration of special topics related to the field of human services. Assessment of appropriate literature and research. May be repeated as topics change.

SWK 401 COMMUNITY FIELD EXPERIENCE
5
Supervised field experience for students working in a micro or macro practice setting. Concurrent seminar includes intensive basic communication and interviewing skill development. Students spend 150 hours in the agency.

Prerequisite(s): SWK 201; permission of instructor.

SWK 485 INDEPENDENT STUDY
1-3
Individual research, study, and readings on specific topics and/or projects of importance to social work. Under individual faculty direction.

Prerequisite(s): Permission of instructor.
SWK 477  HONORS THESIS PROJECT
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with department chairpersons.
**Prerequisite(s):** Approval of University Honors Program.

SWK 478  HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with department chairpersons.
**Prerequisite(s):** Approved 477 and approval of University Honors Program.

SWK 497  SERVICE LEARNING EXPERIENCE
Supervised community research or service experience that complements a specific upper division course in Social Work. Repeatable up to three semester hours.
**Prerequisite(s):** Permission of instructor.
**Corequisite(s):** A 300-400 level Social Work course.
School of Education and Allied Professions

(EDT) Teacher Education (Collapse Description)

The University of Dayton's Department of Teacher Education has adopted a theme that is integrated through the entire program of study and is consistent with the school-wide conceptual framework. The theme of "Teacher as Reflective Decision Maker in a Pluralistic Society" is an appropriate choice, considering the complex needs of students from many different backgrounds, demand that teacher have as much preparation for this challenge as possible. The department adopted this theme in accordance with the University's Marianist Mission statement which encourages students to take an active role in improving the larger community, and in accordance with the unit outcomes for the SOEAP, which include: embracing diversity, building community, critical reflection, and scholarly practitioner.

To assure the competency of its students, the Department has established a selection and retention policy that requires students to demonstrate throughout their program of study a 2.5 grade-point average overall, in professional education courses, and in teaching fields; ability to pass all three sections of Praxis I, and competency in demonstrating particular objectives in field-based experiences. To receive a provisional license at the completion of their programs, all students are required to pass the Praxis II exit examination(s) mandated by Ohio's Department of Education, verify they are of "good moral character," be fingerprinted, and pass the background check.

Knowledge: Students will demonstrate their knowledge of the teaching and learning process; of human nature and of human development, particularly in educational settings; of the subject areas they wish to teach; and of the special needs of diverse student populations.

Skills: Students will be able to assess pupil learning needs, interests, and level of understanding; to formulate learning objectives; to select appropriate learning content, materials, and activities; to facilitate learning activities and provide effective learning environments; to evaluate pupil progress and promote self-assessment by pupils; to assess their own teaching competencies and the effect these have on pupil learning; and to apply theory to practice in planned and supervised clinical experiences.

Dispositions: The unit outcomes are further contextualized with dispositions. The following dispositions are emphasized in all of the programs in the Department: students will be able to value all students and families, exhibit a belief that all children can learn, collaborate with peers, instructors, and mentor teachers to actively meet the needs of students in their classrooms, adhere to the Professional Code of Ethical Conduct for their specialty area, foster well-integrated knowledge in their students through multi-perspective inquiry, value the profession of teaching as a dynamic profession that is driven by current research and requires a commitment to lifelong professional development. Program specific dispositions are part of the student's ongoing evaluation.

Faculty

Kathryn Kinnucan-Welsch, Chairperson
Professors Emeriti: Anderson, Frye, Fuchs, Gay, Geiger, Grob, Joseph, Klosterman
Professors: Hart, Lasley, Rowley, Talbert-Johnson, Watras
Associate Professors: Adams, Biddle, Bowman, Herreiko, Hurn, Kinnucan-Welsch, Richards, Tilman, Weaver
Assistant Professors: Baldwin, Collopy, Israel, Kelly
Lecturer: Mullins
Administrative Faculty: Ferguson, Mathes
Other Faculty: Andrews, Brink, Corningore, Eggemeier, Engelhardt, Lawless Frank, Lewellyn, Oberlander, Zahner

Sub-Categories / Concentrations / Focus Areas

Adolescence to Young Adult Education  Early Childhood Education
### Courses

**Intervention Specialist**

**Middle Childhood Education**

**Multi-Age Programs P-12**

### Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 109</td>
<td>PERSONAL ASPECTS OF TEACHING</td>
<td>1</td>
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<tr>
<td>EDT 110</td>
<td>THE PROFESSION OF TEACHING</td>
<td>2</td>
</tr>
<tr>
<td>EDT 110L</td>
<td>THE PROFESSION OF TEACHING LAB</td>
<td>1</td>
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<tr>
<td>EDT 207</td>
<td>CHILD AND ADOLESCENT IN EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td>EDT 207L</td>
<td>CHILD AND ADOLESCENT IN EDUCATION LAB</td>
<td>1</td>
</tr>
<tr>
<td>EDT 211</td>
<td>CHILD DEVELOPMENT: BIRTH TO AGE 8</td>
<td>3</td>
</tr>
<tr>
<td>EDT 211L</td>
<td>CHILD DEVELOPMENT: BIRTH TO AGE 8 LAB</td>
<td>1</td>
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</tbody>
</table>

**Description:**

**EDT 109 PERSONAL ASPECTS OF TEACHING**

This course is a candidate's general introduction to education as a profession, and to the University of Dayton. Candidates' personal values, goals, motives and strengths will be identified and reflected upon in relation to the qualities and dispositions necessary to be an effective teacher. This course serves as an introduction to the different program areas (AYA, MCE, ECE, IS and multi-age), to technology in education and to various educational issues. EDT 109 is waived for those candidates who transfer to the University.

**EDT 110 THE PROFESSION OF TEACHING**

This course is designed to study the principal components of effective teaching that facilitate the learning of all students. Current educational issues, the PRAXIS III/Pathwise framework, INTASC standards, other professional standards, developing a community of learners, service learning and teaching incorporating the Marianist traditions are other topics of the course. Field experience required.

**Prerequisite(s):** EDT 109 or permission of dean's undergraduate coordinator.

**Corequisite(s):** EDT 110L.

**EDT 110L THE PROFESSION OF TEACHING LAB**

This lab consists of planned field experiences providing candidates the opportunity for field reflections in school settings.

**Corequisite(s):** EDT 110.

**EDT 207 CHILD AND ADOLESCENT IN EDUCATION**

Study of the empirical principles of intellectual, moral, physical, personality, and social development as related to performance in the classroom. Interpretations for appropriate generic teaching behaviors and developmental causes of behavior problems are discussed. Field experience required.

**Prerequisite(s):** EDT 110.

**Corequisite(s):** EDT 207L.

**EDT 207L CHILD AND ADOLESCENT IN EDUCATION LAB**

This lab consists of planned field experiences providing candidates the opportunity for field reflections in relation to child and adolescent development in school settings.

**Corequisite(s):** EDT 207.

**EDT 211 CHILD DEVELOPMENT: BIRTH TO AGE 8**

This course focuses on the study of typical physical, motor, social-emotional, and aesthetic development of young children ages preconception through eight. Assessment, risk factors, environmental design and guiding behavior are covered. Students will use this knowledge to reflect on and make decisions about practices that serve the needs of young children and their families. This course relies on a 45 hour lab experience to be completed at the Bombeck Family Learning Center.

**Prerequisite(s):** EDT 110.

**Corequisite(s):** EDT 211L.

**EDT 211L CHILD DEVELOPMENT: BIRTH TO AGE 8 LAB**

This 45 contact hour practicum course is one semester of a year long field experience held in conjunction with EDT 211 and EDT 212. Only students who have been accepted to the Early Childhood Program are eligible. During registration, students should sign up for a weekly time slot at the Bombeck Family Learning Center. Current medical forms with a negative TB test, background check, and references are required. Forms are available at the Bombeck Family Learning Center website.

**Prerequisite(s):** EDT 110, 110L.
Corequisite(s): EDT 211.

EDT 212  EARLY CHILDHOOD THEORY AND PRACTICE 3
This course is an introduction to the theory base that drives developmentally appropriate practice for working with young children birth through age eight. It extends knowledge of how children develop and focuses on theories of Piaget, Kohlberg, Skinner, Pavlov, Erikson, Rogers, and Vygotsky. Students will learn to write lesson plans using a Praxis based lesson plan format. Field experience required at the Bombeck Family Learning Center.
Prerequisite(s): EDT 110.
Corequisite(s): EDT 212L.

EDT 212L  EARLY CHILDHOOD THEORY AND PRACTICE LAB 0
This practicum course is a year long field experience held in conjunction with EDT 211 and EDT 212. Only students who have been accepted to the Early Childhood Program are eligible. During registration, students should sign-up for a weekly time slot at the Bombeck Family Learning Center. Current medical forms with a negative TB test, background check, and references are required. Forms are available at the Bombeck Family Learning Center website.
Prerequisite(s): EDT 110.
Corequisite(s): EDT 212.

EDT 222  DEVELOPMENT IN MC AND AYA 3
This course is the study of the physical, social, emotional, intellectual and moral characteristics of the developmental period of early adolescence to young adulthood, within the context of human growth and development. The course focuses on changes in the family setting, social and community contexts, threats to health and safety, and typical risk behaviors. Field experience required.
Prerequisite(s): EDT 110.
Corequisite(s): EDT 222L.

EDT 222L  DEVELOPMENT IN MC AND AYA LAB 1
This lab consists of planned field experiences providing candidates the opportunity for field reflections in relation to young adolescent and young adult development in school settings.
Corequisite(s): EDT 222.

EDT 303  SCHOOL, SELF, AND SOCIETY 3
This course is a study of the relationships among institutional reform, personality development, and social change in rural, urban, and suburban schools to examine the influence of the cultures of communities on their schools. The responses of local schools to national policies will also be included in the course.

EDT 305  PHILOSOPHY AND HISTORY OF AMERICAN EDUCATION 3
This course is the study of American philosophy of education in a historical framework. This course emphasizes the political analyses of educational issues in their historical context. Thematic issues from the Catholic/Marianist perspective are included among the topics studied.
Prerequisite(s): EDT 110; PHIL 103.

EDT 313  DEVELOPMENTALLY APPROPRIATE PRACTICE FOR PRESCHOOL 3
This course will expand the knowledge of how young children, ages three through five, learn and develop. How to provide opportunities that will support this age group's physical, social, emotional, language, cognitive and aesthetic development will be explored. Extensive focus on the content areas of art, music, science, social studies and math as well as guiding behavior and family culture will occur. Field experience in an urban preschool or preschool special education setting required.
Prerequisite(s): EDT 110, 212.
Corequisite(s): EDT 313L, 340, 340L, 453; HSS 333, 334.

EDT 313L  DEVELOPMENTALLY APPROPRIATE PRACTICE FOR PRESCHOOL LAB 1
This 30 contact hour lab experience provides students with an opportunity to work with diverse populations. Placements are made in preschool programs that serve children from low income families, minority children who are at risk, or children with identified special needs.

**Corequisite(s):** EDT 313.

EDT 314  
**TEAM MODELS AND COLLABORATIVE ASSESSMENT**  
This course provides an in depth study of transdisciplinary teaming and collaborative assessment models in the field of early childhood special education. Included will be the transdisciplinary and collaborative nature of assessment in the diagnosis, screening, and instruction of young children (birth to age eight) who are typically and atypically developing. Emphasis will be given to the role of the family in the assessment process. Systematic observation using a play-based approach will be emphasized.

**Prerequisite(s):** EDT 110, 212.

EDT 315  
**HEALTH AND MEDICAL ISSUES FOR EARLY CHILDHOOD**  
Study of the health and medical needs associated with young children with disabilities. Students engage in collaboration between educational and medical professionals in an effort to integrate services for young children.

**Prerequisite(s):** EDT 110, 212.

EDT 317  
**EARLY CHILDHOOD ART METHODS**  
This course will expand the knowledge of how young children, age three through five, learn and develop and how to provide opportunities that support the physical, social, emotional, language, cognitive and aesthetic development of children from three through age five, with extensive focus on the content area of art. Field experience required.

**Prerequisite(s):** EDT 110, 212.

EDT 321  
**CLASSROOM ENVIRONMENT FOR MIDDLE CHILDHOOD**  
This course is the study of the middle childhood student within the classroom environment. Theories of learning and practical applications, motivation, classroom management and discipline, lesson and unit planning, teaching methodologies and assessment are examined and practiced. Field experience required.

**Prerequisite(s):** EDT 110, 222.

**Corequisite(s):** EDT 321L.

EDT 321L  
**CLASSROOM ENVIRONMENT FOR MIDDLE CHILDHOOD LAB**  
This lab consists of planned field experiences providing candidates the opportunity for field reflections in regards to learning theories and classroom management in middle level school settings.

**Corequisite(s):** EDT 321.

EDT 331  
**RELIGION METHODS**  
This course examines the planning, diagnosis, instructional methods, materials and assessment techniques utilized in teaching religion to students with varied needs and abilities.

**Prerequisite(s):** EDT 338; junior standing.

EDT 338  
**TEACHING AND LEARNING**  
This course is a study of the empirical principles of learning such as reinforcement, discovery, motivation and transfer theories. Interpretations for generic teaching behaviors especially in diagnosis, prescription and assessment are presented. Field experience required.

**Prerequisite(s):** EDT 207 or 222.

**Corequisite(s):** EDT 338L.

EDT 338L  
**TEACHING AND LEARNING LAB**  
This lab consists of planned field experiences providing candidates the opportunity for field reflections in regard to learning theories in school settings.

**Corequisite(s):** EDT 338.

EDT 340  
**EDUCATING DIVERSE STUDENT POPULATIONS IN INCLUSIVE SETTINGS**  
This lab consists of planned field experiences providing candidates the opportunity for field reflections in regard to learning theories in school settings.
This course is the study of the characteristics, legal aspects, and educational needs of students with challenges in learning. The role of the general educator in making curricular modifications and accommodations, adapting instruction and collaborating with other educators to facilitate learning in the general classroom for these students is examined. Field experience required.

**Prerequisite(s):** EDT 110.

**Corequisite(s):** EDT 340L.

**EDT 340L**  
**EDUCATING DIVERSE STUDENT POPULATIONS IN INCLUSIVE SETTINGS LAB**  
This lab consists of planned field experiences providing candidates the opportunity for field reflections in relation to adapting learning experiences for diverse learners in school settings.

**Corequisite(s):** EDT 340.

**EDT 341**  
**LANGUAGE DEVELOPMENT AND EMERGENT LITERACY**  
This course is the study of oral language and literacy development in children, with implications for all learners, including children with special needs.

**Prerequisite(s):** EDT 110.

**EDT 342**  
**BEHAVIOR MANAGEMENT**  
This course examines the principles and methods of observing, recording, measuring and managing human behavior with emphasis on students with disabilities.

**Prerequisite(s):** EDT 340 (may be taken as a corequisite).

**EDT 343**  
**INTRODUCTION TO EDUCATION OF LEARNERS WITH MODERATE LEARNING NEEDS**  
This course is a study of the role and function of the intervention specialist. This course presents issues of definition, identification and placement procedures. The candidate will acquire knowledge of major researchers and historians, variations in belief, traditions and values across cultures, and current practices in the field. Field experience required.

**Prerequisite(s):** ECE: EDT 340.

**Corequisite(s):** EDT 343L.

**EDT 343L**  
**INTRODUCTION TO EDUCATION OF LEARNERS WITH MODERATE LEARNING NEEDS LAB**  
This lab consists of planned field experiences providing candidates the opportunity for field reflections in relation to the individual learning needs of students in school settings.

**Corequisite(s):** EDT 343.

**EDT 344**  
**COLLABORATING WITH FAMILIES, PROFESSIONALS AND AGENCIES**  
This course examines theories and techniques to assist teachers in working with colleagues, families and agency personnel to provide an appropriate educational program, improve home-school relationships and develop family-professional partnerships. Historical and legal perspectives of parental influence on special education service are examined.

**Prerequisite(s):** IS: EDT 343; ECE: EDT 340.

**EDT 350**  
**FOUNDATIONS OF LITERACY THROUGH LITERATURE**  
This course explores the important role children's and young adult literature has in literacy development. It addresses selection of books for specific needs, interests, and reading abilities in eight genres as well as techniques for use in classroom and home settings for children birth through adolescent/young adult.

**Prerequisite(s):** EDT 110.

**EDT 400**  
**INDEPENDENT STUDY**  
This course is an in-depth study of a selected educational topic. The candidate develops an individual learning plan that includes objectives, schedule of readings and assignments, products and methods of assessment.

**Prerequisite(s):** Permission of department chairperson.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 404</td>
<td>CURRENT INNOVATIONS IN EDUCATION</td>
<td>3</td>
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<tr>
<td>EDT 406</td>
<td>SPECIAL TOPICS IN TEACHING</td>
<td>1-3</td>
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<tr>
<td>EDT 412</td>
<td>DEVELOPMENTALLY APPROPRIATE PRACTICE IN MATH FOR ECE</td>
<td>3</td>
</tr>
<tr>
<td>EDT 413</td>
<td>DEVELOPMENTALLY APPROPRIATE PRACTICE IN SOCIAL STUDIES FOR ECE</td>
<td>2</td>
</tr>
<tr>
<td>EDT 414</td>
<td>DEVELOPMENTALLY APPROPRIATE PRACTICE IN SCIENCE FOR ECE</td>
<td>3</td>
</tr>
<tr>
<td>EDT 415</td>
<td>WORKING WITH YOUNG LEARNERS WITH MILD TO MODERATE DISABILITIES</td>
<td>2</td>
</tr>
<tr>
<td>EDT 415L</td>
<td>ECE PRIMARY (K-3) FIELD INTERNSHIP</td>
<td>1</td>
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</tbody>
</table>

This course is the study of current innovations in education. The course focuses on the examination and critical analysis of recent trends in curriculum and instructional and assessment strategies in P-12 schools.

This course is the study of specialized areas of education not typically included in the professional education sequence. Topics are announced.

This course will extend the candidate's knowledge of how children, six through eight years, develop and learn in order to provide opportunities the support the physical, social, emotional, language, cognitive and aesthetic development of all young children. Students will learn to use knowledge of how young children, ages six through eight, differ in their development and approaches to learning mathematics in order to provide individually appropriate opportunities for learning the subject. The course will emphasize teaching in the content of mathematics and will focus on the Ohio Mathematics academic content standards and the NCTM standards. Field experience is integrated with the primary block. This course is part of the first semester senior year internship and culminates in the second semester of student teaching.

**Prerequisite(s):** EDT 110, 212, 313; successful completion of field experience.

**Corequisite(s):** EDT 413, 414, 415, 415L, 454.

Students will learn to use knowledge of how young children ages six through eight differ in their development and approaches to learning Social Studies in order to provide individually appropriate opportunities for learning the subject. The course will emphasize teaching in the content of Social Studies and will focus on the Ohio Social Studies academic content standards and the NCSS standards. Field experience is integrated with the primary block. This course is part of the first semester senior year internship and culminates in second semester student teaching.

**Prerequisite(s):** EDT 110, 212, 313; successful completion of field experience.

**Corequisite(s):** EDT 412, 413, 414, 415, 415L, 454.

This course will explore resources and techniques available to provide all early childhood students with a holistic, interdisciplinary understanding of science. Candidates will design lessons, activities, and assessments which link the national standards, state model, and international goals to contemporary events and children's daily lives. Developmentally appropriate practices, science processes, inquiry, problem-solving, and safety issues will be addressed.

**Prerequisite(s):** EDT 110, 212, 313; GEO 204; SCI 190, 190L, 230, 230L; successful completion of field experience.

**Corequisite(s):** EDT 412, 413, 414, 415, 415L, 454.

This course is the study of the role and function of the early childhood educator in working with learners with mild to moderate disabilities. The course presents issues of definition, identification and placement procedures. The candidate will acquire knowledge of major researchers and historians, variations in belief, traditions and values across cultures, and current practices in the field. Field experience required as part of the K-3 block.

**Prerequisite(s):** EDT 212, 340; successful completion of field experience.

**Corequisite(s):** EDT 412, 413, 414, 415, 415L, 454.
This ECE field experience is the first semester of the senior level internship, which provides the candidate the opportunity for practice and reflection in K-3 settings.

**Prerequisite(s):** EDT 212, 340; successful completion of field experience.

**Corequisite(s):** EDT 412, 413, 414, 415, 454.

**EDT 419 KINDERGARTEN-PRIMARY CURRICULUM AND INSTRUCTION**

This course is for early childhood ADAP students only and focuses on planning, assessment, instructional methods, materials, and evaluation techniques for teaching children in kindergarten and primary grades. Integrated curriculum and the Ohio Early Learning/Academic Content Standards in math and science will be emphasized.

**Prerequisite(s):** EDT 110, 211, 212.

**EDT 419L KINDERGARTEN-PRIMARY CURRICULUM AND INSTRUCTION LAB**

This 20 contact hour lab in a kindergarten or primary grades classroom supports the material covered in EDT 419.

**EDT 425 THE MIDDLE SCHOOL PRINCIPLES AND PRACTICES**

This course is primarily a study of organization (school structure), philosophy and curriculum of middle level education (9-14 year olds), grades 4-9. It is designed to present the theoretical knowledge base about middle level (school) education. Issues and concerns, current trends and the essential elements relating to middle level education will be discussed throughout the semester of study. A variety of inquiry methods will be modeled that encourage critical thinking skills.

**Prerequisite(s):** EDT 222, 321.

**EDT 426 READING/LANGUAGE ARTS FOR MIDDLE CHILDHOOD**

This course focuses on the planning, diagnosis, instructional methods, materials, assessment and evaluation techniques for teaching reading/language arts to students in the middle schools with varied needs and abilities. The topics emphasized in this course include: an understanding of Ohio's academic content standards for grades 4-9, applications and instructional techniques that address the Ohio proficiency tests, various resources, technologies, interdisciplinary connections, various grouping techniques and current research.

**Prerequisite(s):** EDT 321, 425.

**Corequisite(s):** EDT 458, 458L; two content methods courses.

**EDT 427 MATH FOR MIDDLE CHILDHOOD**

This course focuses on the planning, diagnosis, instructional methods, materials, assessment and evaluation techniques for teaching mathematics to students in the middle schools with varied needs and abilities. The topics emphasized in this course include: an understanding of Ohio's academic content standards for grades 4-9, applications and instructional techniques that address the Ohio proficiency tests, various resources, technologies, manipulatives, and other visuals, interdisciplinary connections, various grouping techniques and current research.

**Prerequisite(s):** EDT 321, 425.

**Corequisite(s):** EDT 458, 458L; two content methods courses.

**EDT 428 SCIENCE FOR MIDDLE CHILDHOOD**

This course focuses on the planning, diagnosis, instructional methods, materials, assessment and evaluation techniques for teaching science to students in the middle schools with varied needs and abilities. The topics emphasized in this course include: an understanding of Ohio's academic content standards for grades 4-9, applications and instructional techniques that address the Ohio proficiency tests, various resources, technologies, experiments, and other hands-on experiences, interdisciplinary connections, various grouping techniques, and current research.

**Prerequisite(s):** EDT 321, 425.

**Corequisite(s):** EDT 458, 458L; two content methods courses.

**EDT 429 SOCIAL STUDIES FOR MIDDLE CHILDHOOD**

This course focuses on the planning, diagnosis, instructional methods, materials, assessment and evaluation techniques for teaching social studies to students in the middle schools with varied needs and abilities. The topics emphasized in this course include: an understanding of Ohio's academic content standards for grades 4-9, applications and instructional techniques that address the Ohio proficiency tests, various resources, technologies, experiments, and other hands-on experiences, interdisciplinary connections, various grouping techniques, and current research.
This course focuses on the planning, diagnosis, instructional methods, materials, assessment and evaluation techniques for teaching social studies to students in the middle schools with varied needs and abilities. The topics emphasized in this course include: an understanding of Ohio's academic content standards for grades 4-9, applications and instructional techniques that address the Ohio proficiency tests, various resources, technologies and active hands-on experiences, other visuals, interdisciplinary connections, various grouping techniques and current research.

**Prerequisite(s):** EDT 321, 425.

**Corequisite(s):** EDT 458, 458L; two content methods courses.

**EDT 431** INTEGRATED LANGUAGE ARTS METHODS FOR ADOLESCENT TO YOUNG ADULT

This course focuses on planning, diagnosis, instructional methods, materials, assessment, and evaluation techniques for teaching all levels of integrated language arts to students in grades 7-12 with varied needs and abilities. Topics include: understanding Ohio's academic content standards for grades 7-12, applications and instructional techniques that address the Ohio proficiency and competency tests, various resources, technologies, manipulatives, and other visuals, interdisciplinary connections, various grouping techniques, best practices, and current research. Field experience required.

**Prerequisite(s):** EDT 222, 222L, 338, 338L.

**Corequisite(s):** EDT 305, 431, 459.

**EDT 431L** INTEGRATED LANGUAGE ARTS METHODS AYA (7-12) FIELD INTERNSHIP

This AYA field experience is the first semester of the senior level internship, providing the candidate with practice and reflection in the integrated language arts, AYA setting.

**Corequisite(s):** EDT 305, 431, 459.

**EDT 432** MATH METHODS FOR ADOLESCENT TO YOUNG ADULT

This course focuses on planning, diagnosis, instructional methods, materials, assessment, and evaluation techniques for teaching all levels of mathematics to students in grades 7-12 with varied needs and abilities. Topics include: understanding Ohio's academic content standards for grades 7-12, applications and instructional techniques that address the Ohio proficiency and competency tests, various resources, technologies, manipulatives, and other visuals, interdisciplinary connections, various grouping techniques, best practices, and current research. Field experience required.

**Prerequisite(s):** EDT 222, 222L, 338, 338L.

**Corequisite(s):** EDT 305, 432L, 459.

**EDT 432L** MATH METHODS AYA (7-12) FIELD INTERNSHIP

This AYA field experience is the first semester of the senior level internship, providing the candidate with practice and reflection in a math, AYA setting.

**Corequisite(s):** EDT 305, 432, 459.

**EDT 433** FOREIGN LANGUAGE METHODS FOR ADOLESCENT TO YOUNG ADULT

This course focuses on planning, diagnosis, instructional methods, materials, assessment, and evaluation techniques for teaching all levels of foreign language to students in grades 7-12 with varied needs and abilities. Topics include: understanding Ohio's academic content standards for grades 7-12, applications and instructional techniques that address the Ohio proficiency and competency tests, various resources, technologies, hands-on activities and other visuals, interdisciplinary connections, various grouping techniques, best practices, and current research. Field experience required.

**Prerequisite(s):** EDT 207, 207L, 338, 338L.

**Corequisite(s):** EDT 305, 433L, 459.

**EDT 433L** FOREIGN LANGUAGE METHODS FOR AYA (7-12) FIELD INTERNSHIP

This AYA field experience is the first semester of the senior level internship, which provides the candidate with practice and reflection in a foreign language, AYA setting.

**Corequisite(s):** EDT 305, 433, 459.
EDT 434  SCIENCE METHODS FOR ADOLESCENT TO YOUNG ADULT
This course focuses on planning, diagnosis, instructional methods, materials, assessment, and evaluation techniques for teaching all levels of science to students in grades 7-12 with varied needs and abilities. Topics include: understanding Ohio's academic content standards for grades 7-12, applications and instructional techniques that address the Ohio proficiency and competency tests, various resources, technologies, hands-on activities, interdisciplinary connections, various grouping techniques, best practices, and current research. Field experience required.
Prerequisite(s): EDT 222, 222L, 338, 338L.
Corequisite(s): EDT 305, 434L, 459.

EDT 434L  SCIENCE METHODS FOR AYA (7-12) FIELD INTERNSHIP
This AYA field experience is the first semester of the senior level internship, which provides the candidate with practice and reflection in a science, AYA setting.
Corequisite(s): EDT 305, 434L, 459.

EDT 435  INTEGRATED SOCIAL STUDIES METHOD FOR ADOLESCENT TO YOUNG ADULT
This course focuses on planning, diagnosis, instructional methods, materials, assessment, and evaluation techniques for teaching all levels of integrated social studies to students in grades 7-12 with varied needs and abilities. Topics include: understanding Ohio's academic content standards for grades 7-12, applications and instructional techniques that address the Ohio proficiency and competency tests, various resources, technologies, hands-on activities, interdisciplinary connections, various grouping techniques, best practices, and current research. Field experience required.
Prerequisite(s): EDT 222, 222L, 338, 338L.
Corequisite(s): EDT 305, 435L, 459.

EDT 435L  INTEGRATED SOCIAL STUDIES METHODS FOR AYA (7-12) FIELD INTERNSHIP
This AYA field experience is the first semester of the senior level internship, which provides the candidate with practice and reflection in a social studies, AYA setting.
Corequisite(s): EDT 305, 435, 459.

EDT 442  ASSESSMENT: MILD/MODERATE
This course is the study of the multidisciplinary use of assessment instruments and techniques in the diagnosis, planning and evaluation of the special needs learner and the development of individual education programs.
Prerequisite(s): EDT 321, 340, 343, 425.
Corequisite(s): EDT 442L, 443, 444.

EDT 442L  INTERVENTION SPECIALIST: MILD/MODERATE FIELD INTERNSHIP
This Intervention Specialist: Mild/Moderate field experience is the first semester of the senior level internship, providing the candidate with practice and reflection in mild/moderate intervention specialist settings.
Corequisite(s): EDT 442, 443, 444.

EDT 443  CURRICULUM: MILD/MODERATE
This course is the study of curriculum development considering the motor, cognitive, academic, social, language, affective, functional, life skills, and individual programming of students with mild/moderate disabilities.
Prerequisite(s): EDT 321, 340, 343, 425.
Corequisite(s): EDT 344, 442, 442L, 444.

EDT 444  INSTRUCTIONAL STRATEGIES: MILD/MODERATE
This course examines the strategies, materials, and evaluation techniques for teaching students with mild/moderate learning needs. Field experience required.
Prerequisite(s): EDT 321, 340, 343, 425.
Corequisite(s): EDT 442, 442L, 443.

EDT 445  APPLICATION OF COMPUTERS/TECHNOLOGY IN SPECIAL EDUCATION

This course is the study of basic computer applications in special education, including instructional programs, software evaluation, telecommunications, multimedia and hypermedia, assistive technology, augmentative devices, resources, and legal/ethical issues.  
Prerequisite(s): EDT 341, 343.

EDT 446  CAREER EDUCATION / SPECIAL EDUCATION  
Theory and techniques of job classification, assessment, selection, placement, and activities related to work from pre-school to adult.  
Prerequisite(s): EDT 343.  
Corequisite(s): EDT 442, 442L, 443, 444.

EDT 447  INSTRUCTIONAL STRATEGIES: MODERATE  
This course examines strategies for teaching and managing behaviors of students with moderate disabilities.  
Prerequisite(s): EDT 321, 340, 343, 425.  
Corequisite(s): EDT 442, 442L, 443, 444.

EDT 450  PHONICS, SPELLING, AND VOCABULARY  
This course provides the background knowledge necessary for effectively teaching and assessing the role of phonics in the reading process. Emphasis is on developing phonemic awareness, phonics, spelling, and word recognition/word meaning embedded in the context of a total reading/language arts program focused on meaning construction.  
Prerequisite(s): EDT 453 or 458 (may be taken as a corequisite).

EDT 452  CRITICAL READING IN THE CONTENT AREAS  
In this course, Middle Childhood and Intervention Specialist candidates examine the strategies and techniques in the development of prior knowledge skills, study skills, vocabulary, technology, and assessment as they relate to critical reading abilities in a variety of curriculum areas.  
Prerequisite(s): EDT 350.

EDT 453  INTRODUCTION TO LITERACY FOR EARLY CHILDHOOD  
This course is a study of appropriate instruction and assessment supporting the literacy development of children (P-3). Major emphasis is on developing the knowledge base related to a comprehensive framework for literacy instruction, including reading, writing, and content area literacy, with a focus on instruction supporting emerging and early readers and writers.  
Prerequisite(s): EDT 350.

EDT 454  METHODS OF LITERACY INSTRUCTION AND ASSESSMENT FOR EARLY CHILDHOOD  
This course is the continued study of appropriate instruction and assessment supporting the literacy development of children grades P-3, with a focus on instruction supporting developing and transitional readers and writers. Major emphasis is on the classroom application of the principles of comprehensive literacy instruction and assessment, including the writing process and comprehension strategies across the content areas.  
Prerequisite(s): EDT 350, 453.

EDT 458  READING METHODS FOR MIDDLE CHILDHOOD  
An integrated language arts course focusing on the knowledge base underpinning the teaching of reading and related language arts processes within the language arts and across the curriculum to students of various needs and abilities. Topics include planning, instructional methods, materials, assessment, and evaluation techniques. Field experience required.  
Prerequisite(s): EDT 350.  
Corequisite(s): EDT 458L; two content methods courses.

EDT 458L  MCE MIDDLE LEVEL (4-9) FIELD INTERNSHIP  
This MCE field experience is the first semester of the senior level internship, which provides the candidate with practice and reflection in middle level school settings.  
Corequisite(s): EDT 458; two content methods courses.

EDT 459  CRITICAL READING AND WRITING IN THE CONTENT AREA  

In this course, adolescence to young adult candidates examine the strategies and techniques in the development of prior knowledge skills, study skills, vocabulary, technology, and assessment as they relate to critical reading and writing abilities in a variety of curriculum areas in the AYA classroom.

**Prerequisite(s):** EDT 110, 338, 338L.

**Corequisite(s):** EDT 305; two content methods courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 471</td>
<td>STUDENT TEACHING-FOREIGN LANGUAGES K-12</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Full-time supervised and evaluated teaching of</td>
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</tr>
<tr>
<td></td>
<td>foreign languages in P-12 classes. The candidate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>will demonstrate the knowledge, skills, and</td>
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</tr>
<tr>
<td></td>
<td>dispositions required of a beginning foreign</td>
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<tr>
<td></td>
<td>language teacher. Attendance at weekly seminars</td>
<td></td>
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<tr>
<td></td>
<td>is required.</td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>EDT 433; formal admission to student teaching a</td>
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<tr>
<td></td>
<td>full semester in advance; completion of 80% of</td>
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<tr>
<td></td>
<td>the content area courses.</td>
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<tr>
<td>EDT 473</td>
<td>STUDENT TEACHING - PRIMARY GRADES</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>The student teaching experience is a full-time,</td>
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<tr>
<td></td>
<td>evaluated experience in a primary setting. The</td>
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<tr>
<td></td>
<td>candidate will demonstrate the knowledge, skills</td>
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<td></td>
<td>and dispositions required of a beginning primary</td>
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<td></td>
<td>grade teacher.</td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>Formal admission to student teaching a</td>
<td></td>
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<tr>
<td></td>
<td>full semester in advance.</td>
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<tr>
<td>EDT 474</td>
<td>STUDENT TEACHING--MIDDLE CHILDHOOD</td>
<td>12</td>
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<tr>
<td></td>
<td>Full-time supervised and evaluated teaching in</td>
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<td></td>
<td>grades 4-9 in at least one of the two candidate's</td>
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<td></td>
<td>concentration subjects. The candidate will</td>
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<td></td>
<td>demonstrate the knowledge, skills and dispositions</td>
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<td></td>
<td>required of a beginning middle-level teacher.</td>
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<td></td>
<td>Attendance at weekly seminars is required.</td>
<td></td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>Two of following: EDT 426, 427, 428, 429; formal admission to student teaching a full semester in advance.</td>
<td></td>
</tr>
<tr>
<td>EDT 475</td>
<td>STUDENT TEACHING - ADOLESCENT TO YOUNG ADULT</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Full-time supervised and evaluated teaching in</td>
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<td></td>
<td>the content area in a junior or senior high</td>
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<td></td>
<td>school classroom. The candidate is to demonstrate</td>
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<td></td>
<td>the knowledge, skills, and dispositions required</td>
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<td></td>
<td>of a beginning secondary teacher. Attendance at</td>
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<tr>
<td></td>
<td>weekly seminars is required.</td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>Formal admission to student teaching a full semester in advance.</td>
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<tr>
<td>EDT 476</td>
<td>STUDENT TEACHING-INTERVENTION SPECIALIST:</td>
<td>12</td>
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<tr>
<td></td>
<td>MILD/MODERATE</td>
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<td></td>
<td>Full-time supervised and evaluated teaching with</td>
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<tr>
<td></td>
<td>students demonstrating mild/moderate learning</td>
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<tr>
<td></td>
<td>needs. The candidate will demonstrate the</td>
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<tr>
<td></td>
<td>knowledge, skills and dispositions of a beginning</td>
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<tr>
<td></td>
<td>mild/moderate intervention specialist teacher.</td>
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<tr>
<td></td>
<td>Attendance at seminars is required.</td>
<td></td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>EDT 342, 343, 343L, 344, 442, 442L, 443, 444,</td>
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<tr>
<td></td>
<td>445; formal admission to student teaching a full</td>
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<td></td>
<td>semester in advance.</td>
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<tr>
<td>EDT 477</td>
<td>STUDENT TEACHING--ART K-12</td>
<td>12</td>
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<tr>
<td></td>
<td>Full-time supervised and evaluated teaching in</td>
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<tr>
<td></td>
<td>art classes in schools (P-12). The candidate</td>
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<tr>
<td></td>
<td>will demonstrate the knowledge, skills, and</td>
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<tr>
<td></td>
<td>dispositions required of a beginning art teacher.</td>
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<tr>
<td></td>
<td>Attendance at a weekly seminar is required.</td>
<td></td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>VAE 231, 383, 483; formal admission to student teaching a full semester in advance.</td>
<td></td>
</tr>
<tr>
<td>EDT 479</td>
<td>STUDENT TEACHING--MUSIC K-12</td>
<td>12</td>
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<tr>
<td></td>
<td>Full-time supervised and evaluated teaching in</td>
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<tr>
<td></td>
<td>music classes in schools (P-12). The candidate</td>
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<tr>
<td></td>
<td>will demonstrate the knowledge, skills and</td>
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<td></td>
<td>dispositions required of a beginning music</td>
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<tr>
<td></td>
<td>teacher. Attendance at a weekly seminar is</td>
<td></td>
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<tr>
<td></td>
<td>required.</td>
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<tr>
<td><strong>Prerequisite(s):</strong></td>
<td>MUS 331, 332, 335; formal admission to student teaching a full semester in advance; piano proficiency and completion of junior/senior recital.</td>
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</tr>
<tr>
<td>EDT 498</td>
<td>HONORS THESIS</td>
<td>3</td>
</tr>
</tbody>
</table>
This course is based on the selection, design, investigation, and completion of an independent, original research thesis under the guidance of a faculty research director. Restricted to students in the University Honors Program with permission of the program director and EDT chairperson.

Prerequisite(s): Permission of department chairperson and program director.
College of Arts and Sciences

(THR) Theatre (Collapse Description)

A major in Theatre (THR), offered by the Department of Communication, provides a solid academic foundation plus the experience of working in a wide range of theatre productions, including mainstage productions in the Boll Theatre as well as experimental work in the Studio Theatre.

Theatre majors are required to audition for roles and participate in each mainstage production, for which they receive credit in THR 100 or 300.

A minor in theatre consists of twenty-one semester hours. Courses in dance are not included.

The Department of Communication also offers a concentration in THR (CTR).

Faculty

Donald P. Yoder, Chairperson, Department of Communication
Professor Emeritus: Gilvary
Associate Professor: Anderson
Assistant Professor: Dunlevy

Majors/Minors (Collapse All)

Major/Minor Name
Bachelor of Arts with a major in Theatre (THR)

<table>
<thead>
<tr>
<th>Theatre</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 105, (305 or 307), 310, (325 or 326), 330, 340, (415 or 425), (440 or 485 or 490)</td>
<td>24-27</td>
</tr>
<tr>
<td>THR Laboratories¹</td>
<td>4</td>
</tr>
<tr>
<td>THR 100, 300</td>
<td></td>
</tr>
<tr>
<td>THR electives²</td>
<td>10</td>
</tr>
</tbody>
</table>

Liberal Studies Curriculum

Humanities and Fine Arts

| Philosophy and Religious Studies | 12 |
| History | 6 |
| Literature: English or Foreign Language (includes THR or other ARTS, but not THR 100 or 300) | 3 |
| Creative and Performing Arts | 3 |
| Foreign Language and/or Additional Arts and/or Humanities (excludes THR 100 and 300) | 3-9 |
| Social Sciences | 3 |
| Mathematics (excludes MTH 102, 204, 205) | 3 |
| Natural Sciences | 11 |

Communication Competencies

| Communication Competencies | 0-9 |
| Introduction to the University: ASI 150 | 0-1 |
| General Education courses/academic electives to total at least | 124 |
A minimum of four semester hours of THR 100 and/or 300 are required for the degree program.

THR electives may include no more than three additional hours of THR 100 and/or 300.

Minor in Theatre (THR)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 105, 203, (415 or 425)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>THR Laboratories¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>THR 100, 300</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

¹A minimum of three semester hours of THR 100 and/or 300 are required for minor.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 100</td>
<td>THEATRE LABORATORY</td>
<td>1-3</td>
</tr>
<tr>
<td>THR 105</td>
<td>INTRODUCTION TO THE THEATRE</td>
<td>3</td>
</tr>
<tr>
<td>THR 201</td>
<td>BASIC DANCE FOR THE PERFORMING ARTIST</td>
<td>2-3</td>
</tr>
<tr>
<td>THR 202</td>
<td>STAGE MAKEUP</td>
<td>2-3</td>
</tr>
<tr>
<td>THR 203</td>
<td>TECHNICAL PRODUCTION</td>
<td>3</td>
</tr>
<tr>
<td>THR 205</td>
<td>STAGE MANAGEMENT</td>
<td>2</td>
</tr>
<tr>
<td>THR 251</td>
<td>BEGINNING TAP DANCE</td>
<td>2</td>
</tr>
<tr>
<td>THR 261</td>
<td>BEGINNING JAZZ DANCE</td>
<td>2-3</td>
</tr>
<tr>
<td>THR 271</td>
<td>BEGINNING BALLET</td>
<td>2-3</td>
</tr>
<tr>
<td>THR 300</td>
<td>THEATRE LABORATORY</td>
<td>1-3</td>
</tr>
<tr>
<td>THR 301</td>
<td>INTERMEDIATE DANCE FOR THE PERFORMING ARTIST</td>
<td>2</td>
</tr>
</tbody>
</table>
Intermediate-level course in movement for students interested in further developing dance and performance technique.

**Prerequisite(s):** Permission of department chairperson.

**THR 303 SCENE PAINTING**

Basic principles of color paint theory and materials. Investigation of various scene-painting techniques. One three-hour class meeting weekly.

**Prerequisite(s):** Permission of department chairperson.

**THR 305 THEATRE STAGECRAFT**

Study and application of scene construction, rigging, backstage organization, production analysis, and technician-designer relationship.

**THR 307 THEATRE LIGHTING**

Study and application of lighting for the stage: instruments, controls, sources, elements of electricity, and lighting design for all types of theatres, as well as graphic representation.

**THR 310 ACTING I**

The study and practice of basic techniques in rehearsal and performance. Emphasis on self-analysis and self-awareness. Development of basic skills in vocal, emotional, and mental interpretation of character. Required of all theatre majors.

**Prerequisite(s):** THR 105 or permission of department chairperson.

**THR 312 FILM AND TV ACTING**

The study and practice of basic techniques of acting for film and television. Emphasis on technical requirements of acting for the camera and the control of body and voice actors must exercise in these media.

**Prerequisite(s):** THR 310.

**THR 320 MOVEMENT AND VOICE FOR THE STAGE**

An integrated approach to the study of stage movement and voice production for the theatre.

**THR 323 ACTING II**

Further study and practice of techniques introduced in Acting I. Emphasis on interaction, ensemble, group processes, and scene study.

**Prerequisite(s):** (THR 105, 310) or permission of department chairperson.

**THR 325 THEORY AND CRITICISM OF THE STAGE I**

Survey of representative plays from classical to neo-classical periods as a basis for theatrical production and dramatic criticism. (THR 325 or 326 required of all majors.)

**Prerequisite(s):** THR 105.

**THR 326 THEORY AND CRITICISM OF THE STAGE II**

Continuation of THR 325 from romantic to modern periods.

**Prerequisite(s):** THR 105.

**THR 330 CONCEPTS OF SCENE DESIGN**

Studies in the principles of composition and aesthetic theory as applicable to scene design. Development of personal design approach to plays of various styles. Required of all theatre majors.

**THR 340 THE DIRECTOR IN THE THEATRE**

The basic functions of a director in the production of play: interpretation, composition, movement, characterization, rhythm, design concept, and actor training. Required of all theatre majors.

**Prerequisite(s):** THR 105, 310, 330.

**THR 344 ACTING/DIRECTING FOR MUSICAL THEATRE**

Study of performance and directing techniques for Musical Theatre. Studio fee.

**THR 350 THEATRE STYLES**
Examination of the relationships among playwright, audience, actor, designer, and director in the development of major theatre styles of expression.

THR 351 INTERMEDIATE TAP DANCE
Intermediate course in the theory and practice of tap dance.

THR 361 INTERMEDIATE JAZZ DANCE
An intermediate course in the theory and practice of jazz dance and technique.
Prerequisite(s): Permission of department chairperson.

THR 370 TOPICS IN THEATRE STUDY
Study of special topics or themes in theatre performance and production. May be repeated as topics change.
Prerequisite(s): Permission of department chairperson.

THR 371 INTERMEDIATE BALLET
Intermediate course in the theory and practice of classical ballet technique.
Prerequisite(s): Permission of department chairperson.

THR 414 ADVANCED SCENE DESIGN
Individual development in scene design through intensive study in plays of various styles. Detailed representation of design ideas in rendering and models required.
Prerequisite(s): THR 330; permission of department chairperson.

THR 415 HISTORY OF THE THEATRE I
History of theatre from pre-Grecian through Elizabethan; the physical theatre as reflection of and influence on civilization. (THR 415 or 425 required of all majors.)

THR 424 PLAY DIRECTING
Study of the evolution of the modern director. Emphasis is on script interpretation as a basis for the development and execution of the production concept.
Prerequisite(s): THR 340.

THR 425 HISTORY OF THE THEATRE II
Continuance of 415 from the Italian Renaissance to the modern theatre. (THR 415 or 425 required of all majors.)

THR 440 PROBLEMS IN THEATRE PRODUCTION AND DESIGN
Individual research and project work of student's selection under the direct supervision of faculty. (THR 440 or THR 485 or THR 490 required of all majors.) Repeatable up to twelve semester hours.
Prerequisite(s): Permission of department chairperson.

THR 477 HONORS THESIS PROJECT
First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approval of University Honors Program.

THR 478 HONORS THESIS PROJECT
Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.
Prerequisite(s): Approved 477 and approval of University Honors Program.
THR 485 THEATRE SEMINAR 3 - 6
Concentration on one theatrical figure, genre period, or discipline for research and analysis. (THR 440 or THR 485 or THR 490 required of all majors.) Repeatable up to six semester hours. 
Prerequisite(s): Permission of department chairperson.

THR 490 SPECIAL PROBLEMS IN THEATRE 3 - 5
Individual research and report on topic of student's choice in the field of theatre under direct supervision of faculty/staff. (THR 440 or THR 485 or THR 490 required of all majors.) Repeatable up to nine semester hours.

THR 498 THEATRE INTERNSHIP 1 - 3
Theatre work experience with an approved organization. Student must be in good academic standing with at least twelve hours of theatre courses completed. Student may petition the head of the Theatre Program for a second internship if the second internship is at a different organization and the student can demonstrate that the second internship offers a unique and significant educational opportunity not available through the first internship. Permission. Grading Option Two only.
College of Arts and Sciences
(VAR) Visual Arts (Collapse Description)

The mission of the Department of Visual Arts is to provide quality education in the areas of art education, art history, fine art studio, photography, and visual communication design. The Department cultivates high standards for creativity, craft, conceptual understanding, critical analysis, historical scholarship, and pedagogy in all these areas as they relate to the visual arts and visual culture. Central to these pursuits are the artistic practice and scholarly research of faculty, the dedication of support staff to department's educational objectives, and engaged teaching, learning, and scholarship. The Department of Visual Arts is a thriving learning community grounded in the Marianist tradition of educating the whole person. It is fully integrated with the College and the University and contributes significantly to our institutional commitment to excellence.

The department offers the following degrees:

**Bachelor of Arts Degree (B.A.)**
The Bachelor of Arts (B.A.) is intended for those interested in a broad liberal arts education as an overarching part of their chosen visual arts major (Art History, Fine Art, Photography, Visual Communication Design). Approximately forty percent of the degree requirements are taken in the creation and study of visual arts particular to the chosen major. With this degree option it is possible for students to earn a minor, or even a second major, in another university offered discipline.

**Bachelor of Fine Arts Degree (B.F.A)**
The Bachelor of Fine Arts Degree (B.F.A.) is an intensive "professional" program of study specifically tailored to prepare students to enter the field of their chosen major (Art Education, Fine Art, Photography, Visual Communication Design) or to continue their studies in graduate school. Approximately sixty-five percent of the degree requirements are in the creation and study of the visual arts particular to the chosen major.

Majors include:

- Bachelor of Arts (B.A.) with a Major in Art History
- Bachelor of Arts (B.A.) with a Major in Fine Art
  - Visual Communication Design
  - Photography
- Bachelor of Fine Arts (B.F.A.) with a Major in Fine Art
  - Visual Communication Design
  - Photography
- Bachelor of Fine Arts (B.F.A.) with Teacher Licensure

**Visual Arts Minors**
A minor in fine arts consists of twenty-one semester hours.

A minor in visual communication design consists of twenty-one semester hours.

A minor in photography consists of twenty-one semester hours.

A minor in art history consists of eighteen semester hours.

Transfer students seeking a visual arts minor must complete at least nine of the required semester hours in the visual arts department while in residency at the University of Dayton.

**Visual Arts Foundations**
Visual arts foundation courses introduce students to fundamental principles, practices, materials, and vocabulary common to all visual arts disciplines. These courses provide a
common background of skill development along with an understanding of primary concepts in the visual arts and a basis for critical evaluation. All foundation courses share the objective of preparing students to face the challenges of their specific disciplines.

Second Year and Scholarship Review

Near the end of their second year, all Visual Arts majors are reviewed by the Visual Arts faculty. Participation in the Second Year and Scholarship Review is mandatory for all majors. Students must receive a satisfactory review rating before graduating with a visual arts degree. Also included in the review are first and third year students who have been awarded Visual Arts Scholarships. The review process is a valuable learning experience for the student and it helps the faculty to recommend ways in which students may build upon their assets and overcome their liabilities. Scholarship funds are available to a limited number of students whose performance in the review is judged by the faculty to be outstanding.

Senior Capstone Courses

These courses, required in all majors, bring together the skills, education, ideas, and goals of senior students. They stress an integrated approach to learning and working and they focus on preparing students for their futures beyond the University. They provide a logical continuity that begins with the Visual Arts Foundations and the mid-point evaluation of the Second Year and Scholarship Review.

Faculty

Fred Niles, Chairperson
Professors: Niles, Wilkinson, Zahner
Associate Professors: Clarke, Crum, Gooch, Huacuja, Marcinowski, J. Whitaker, J.M. Whitaker, Wilbers,
Assistant Professors: Holscher, Jones, Kwon, Phelps
Lecturer: LaMarche
Part-time Instructors: Crum, Emery, Jackson, Kargl, Kessler, Kirchner, Langenderfer, Mitchell, Moore, Murray, Rogers, Rosengarten, Schanberger, Smith, Snow, Wallace

Sub-Categories / Concentrations / Focus Areas

- Art Education
- Art History
- Fine Arts
- Photography
- Visual Communication Design

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAD 211</td>
<td>FUNDAMENTALS OF VISUAL COMMUNICATION DESIGN</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A course for non-majors in the basics of design for communication. Attention to page layout, typography, image, graphic style, and information delivery. Studio fee.</td>
<td></td>
</tr>
<tr>
<td>VAD 215</td>
<td>COMPUTER APPLICATIONS - DESIGN</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>An introduction to drawing and paint software programs and their use in illustration. Studio fee. <strong>Prerequisite(s):</strong> VAR 200.</td>
<td></td>
</tr>
<tr>
<td>VAD 218</td>
<td>COMPUTER APPLICATIONS - ILLUSTRATION</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>An introduction to drawing and paint software programs and their use in illustration. Studio fee. <strong>Prerequisite(s):</strong> VAR 200.</td>
<td></td>
</tr>
<tr>
<td>VAD 245</td>
<td>TYPOGRAPHY I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The study of the design, appearance and arrangement of letters and words. Attention to their importance as both functional and expressive elements in communication messages. Studio fee. <strong>Prerequisite(s):</strong> VAD (215 or 218); VAR 200.</td>
<td></td>
</tr>
<tr>
<td>VAD 307</td>
<td>DRAWING FOR GRAPHIC DESIGN</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Exploration of materials, procedures, and drawing techniques for design presentations. Studio fee. <strong>Prerequisite(s):</strong> VAF 104.</td>
<td></td>
</tr>
</tbody>
</table>
VAD 312 VISUAL FORM
Investigation of the perceptual and psychological effect of the visual elements—line, shape, value, volume, texture, and color—in visual communication. Exploration of word and image relationships. Studio fee.
Prerequisite(s): VAD 216.

VAD 318 GRAPHIC DESIGN FOR THREE DIMENSIONS
The application of graphic design principles to packaging, product, exhibition, and environmental design.
Prerequisite(s): VAD 245, 312; VAF 117.

VAD 320 COMPUTER-AIDED GRAPHIC DESIGN
An exploration of the use of the computer as both a tool and a medium for the design and production of visual communication. Studio fee.
Prerequisite(s): VAD 215, 245.

VAD 321 COMPUTER-AIDED ILLUSTRATION
An exploration of the use of the computer as both a tool and a medium for the creation and production of illustrations. Studio fee.
Prerequisite(s): VAD 218, 245.

VAD 344 DESIGN FOR MULTIMEDIA I
An introduction to the design process, including visual principles, aesthetic issues, and diverse applications for multimedia and interactive electronic media. Emphasis is placed on the visual organization of information in these environments. Studio fee.
Prerequisite(s): (VAD 215 or 218), 245, 312, 360) or permission of instructor.

VAD 345 TYPOGRAPHY II
The advanced study of typographic design. Attention to the aesthetic and informational qualities of type in print and electronic communication. Studio fee.
Prerequisite(s): VAD 245.

VAD 350 DESIGN PROCESS
Focus on the developmental process of visual communication, including concept development, visualization techniques, presentation formats, and production methods. Studio fee.
Prerequisite(s): VAD 215, 312, 245.

VAD 360 DESIGN FOR THE INTERNET
Studio course in the design of electronic communications for the Internet, and specifically the World Wide Web. The course will emphasize current technology for information delivery, with significant consideration being given to critical issues in visual communication. Studio fee.
Prerequisite(s): VAD (215 or 218), 245, 312.

VAD 395 ADVERTISING DESIGN
Emphasis on print advertising, its creation and presentation. Concept development and attention to advertising layouts that carry motivating images and messages to consumers about products, services, or ideas. Studio fee.

VAD 411 GRAPHIC DESIGN I
Study, design, and application of marks, logos, and symbols in visual communication. Attention to effective visual relationships between typographic elements and images in single-page applications. Studio fee.
Prerequisite(s): VAD 245, 312.

VAD 412 GRAPHIC DESIGN II
Continued study of effective visual relationships between typographic elements and images. Emphasis on sequential page design. Studio fee.
Prerequisite(s): VAD 411 or permission of department chairperson.

VAD 414 TRADEMARK DESIGN

Advanced study of marks, logos, and symbols as communication and identification elements. Emphasis on conceiving design marks of identity for small businesses, corporations, institutions, products, and/or services.

**Prerequisite(s):** VAD 411.

**VAD 415 GRAPHIC DESIGN III**

The study and design of identification and image systems for products, organizations, institutions, or corporations. Emphasis on continuity in the application of visual communication factors. Studio fee.

**Prerequisite(s):** VAD 412 or permission of department chairperson.

**VAD 444 DESIGN FOR MULTIMEDIA II**

Advanced level design for multimedia and interactive electronic media. Emphasis is placed on actual or simulated client-based projects.

**Prerequisite(s):** VAD 344.

**VAD 480 VISUAL COMMUNICATION DESIGN INTERNSHIP**

Opportunities for practical experience in professional working environments. Repeatable up to twelve semester hours.

**Prerequisite(s):** Permission of department chairperson.

**VAD 490 SPECIAL PROBLEMS**

A course for advanced individual work in design. Approval based on academic standing and permission of instructor. Repeatable up to fifteen semester hours. Studio fee.

**VAD 498 SENIOR/PROFESSIONAL SEMINAR - VCD**

Capstone course required of all B. A. and B.F.A. visual communication design majors, to be taken in the first semester of the senior year. Examination of aesthetic, cultural, ethical, and pragmatic issues in preparation for post-graduate experience. Studio fee.

**Prerequisite(s):** Senior standing or permission of department chairperson.

**VAD 499 PORTFOLIO AND PAPER - VCD**

Completion and presentation of undergraduate portfolio and paper, to be reviewed by faculty and peers. Faculty approval of portfolio and paper is required for graduation.

**Prerequisite(s):** VAD 498 or permission of department chairperson.

**VAE 101 EARLY CHILDHOOD ART EDUCATION**

Acquaints students, especially those seeking Early Childhood Licensure, with the principles and concepts of art and with the various materials and techniques used in artistic expression. Open to all students. Studio fee.

**VAE 231 INTRODUCTION TO ART EDUCATION**

An introduction to the pedagogical, philosophical, and psychological aspects of teaching the arts. Topics will include: technology, national and state standards, history, learners with special needs, reading in the arts, and professional associations. Studio fee.

**Prerequisite(s):** EDT 110, 110L.

**Corequisite(s):** Field experience.

**VAE 232 INTEGRATING THE ARTS: VISUAL ARTS**

Developing knowledge, skills values and attitudes in visual arts for the purpose of integration into classrooms for middle childhood and the adolescent learner. Studio fee.

**Prerequisite(s):** EDT 110, 110L.

**VAE 383 FOUNDATION OF ART EDUCATION**

Introduction to the philosophy, history, and theory of teaching art to prekindergarten through grade eight students with varied needs and abilities. Art education majors only or permission. Studio fee.

**Prerequisite(s):** EDT 110, 110L, 207, 207L; permission of instructor and department chairperson.

**Corequisite(s):** Field experience.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAE 483</td>
<td>TEACHING VISUAL ARTS</td>
<td>3</td>
<td>Study of curriculum, planning, theory, and practice for teaching visual arts to students grades seven through twelve. Art Education majors only. Studio fee. <strong>Prerequisite(s):</strong> EDT 110, 110L, 207, 207L, 208; VAE 231, 383; permission of instructor and department chairperson. <strong>Corequisite(s):</strong> EDT 305, 340, 340L, 459.</td>
</tr>
<tr>
<td>VAE 483W</td>
<td>ELEMENTARY AND SECONDARY SCHOOL ART</td>
<td>3</td>
<td>Workshop to give the student of elementary and secondary education new approaches to teaching studio arts, art criticism, art history, and aesthetics. Studio fee.</td>
</tr>
<tr>
<td>VAE 490</td>
<td>SPECIAL PROBLEMS</td>
<td>1-5</td>
<td>A course for advanced individual work in art education. Approval based on academic standing and permission of instructor. Repeatable up to fifteen semester hours. Studio Fee.</td>
</tr>
<tr>
<td>VAF 104</td>
<td>FOUNDATION DRAWING</td>
<td>3</td>
<td>Introduction to basic visual concepts, various drawing media, and approaches to experimental technique. Emphasis on perspective, perceptual awareness, volume in space, and expressive freedom. Studio fee.</td>
</tr>
<tr>
<td>VAF 112</td>
<td>FOUNDATION 2-D DESIGN</td>
<td>3</td>
<td>Study of the underlying elements and principles of design as they are used in two-dimensional composition and the creation of illusionistic three-dimensional space. Studio fee.</td>
</tr>
<tr>
<td>VAF 117</td>
<td>FOUNDATION 3-D DESIGN</td>
<td>3</td>
<td>Introduction to basic principles and practices of design in three dimensions. Emphasis on current theory and construction techniques using a variety of media and methods. Studio fee.</td>
</tr>
<tr>
<td>VAF 204</td>
<td>DRAWING II</td>
<td>3</td>
<td>Emphasis on figure drawing with work from the nude model and the skeleton. Study of proportion, rendering volume, and developing expressive drawing skills in a variety of drawing media. Studio fee. <strong>Prerequisite(s):</strong> VAF 104.</td>
</tr>
<tr>
<td>VAF 216</td>
<td>DESIGN AND COLOR</td>
<td>3</td>
<td>The study of color based on historical and contemporary color theories and the use of color in expressing and integrating design concepts. Studio fee. <strong>Prerequisite(s):</strong> VAF 112 or permission of department chairperson.</td>
</tr>
<tr>
<td>VAF 226</td>
<td>PAINTING I</td>
<td>3</td>
<td>Introduction to basic painting principles, techniques, and materials; still life, landscape, figure, and abstraction. Studio fee. <strong>Prerequisite(s):</strong> (VAF 104, 112, 216) or permission of department chairperson.</td>
</tr>
<tr>
<td>VAF 228</td>
<td>WATERCOLOR I</td>
<td>3</td>
<td>Principles and techniques of transparent watercolor. Emphasis on technical mastery. <strong>Prerequisite(s):</strong> (VAF 104, 112, 216) or permission of department chairperson.</td>
</tr>
<tr>
<td>VAF 232</td>
<td>SCULPTURE I</td>
<td>3</td>
<td>Consideration of forms as a means of developing an understanding of mass, shape, and control of medium. The use of various materials such as wood, plaster, and clay, with emphasis on integrating material with personal expression. Studio fee.</td>
</tr>
<tr>
<td>VAF 240</td>
<td>CERAMICS I</td>
<td>3</td>
<td>Introduction to basic methods of working in clay using coil and slab techniques. Studio fee.</td>
</tr>
<tr>
<td>VAF 253</td>
<td>PRINTMAKING I</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Introduction to the traditional printmaking methods of woodcut and intaglio. Instruction in edition-printing techniques and curating of prints. Studio fee. **Prerequisite(s):** (VAF 104, 112) or permission of department chairperson.

**VAF 304**  **DRAWING II**  
Continuation of work done in VAF 204 with an emphasis on the development of finished figure drawings. Study of anatomy and the rendering of convincing volumes in space. Studio fee. **Prerequisite(s):** VAF 204.

**VAF 325**  **FIGURE PAINTING**  
Painting from the model with a variety of media. Traditional and contemporary approaches to the figure. Model fee. **Prerequisite(s):** (VAF 204 or 304), 226 or permission of department chairperson.

**VAF 326**  **PAINTING II**  
Painting with oils or acrylics; continuing study of the principles and techniques of painting, with emphasis on personal expression and experimentation. Studio fee. **Prerequisite(s):** (VAF 226 or 228) or permission of department chairperson.

**VAF 328**  **WATERCOLOR II**  
Continuing investigation of watercolor techniques, both traditional and experimental. Still life, figure, landscape, and abstraction. **Prerequisite(s):** VAF 228 or permission of department chairperson.

**VAF 332**  **SCULPTURE II**  
Continued exploration of three-dimensional concepts and materials, concentrating on wood, stone, and metal. Studio fee. **Prerequisite(s):** VAF 232 or permission of department chairperson.

**VAF 340**  **CERAMICS II**  
Introduction to basic methods of working clay using the wheel. Studio fee.

**VAF 353**  **PRINTMAKING II**  
Advanced work in woodcut, monoprint and intaglio, including acrylic process and color etchings. Studio fee. **Prerequisite(s):** VAF 253.

**VAF 370**  **ILLUSTRATION I**  
Attention to conceptual, visual, and technical development. Exploration of media and techniques employed by the illustrator in creating images for printed communication. Studio fee. **Prerequisite(s):** VAF 104, 204.

**VAF 380**  **ILLUSTRATION II**  
Interpretation and representation of concepts, products, or stories for magazines, books, newspapers, and advertising. Continued technical development with a variety of materials, media, and techniques. Studio fee. **Prerequisite(s):** VAF 370.

**VAF 404**  **DRAWING IV**  
Observational and expressive drawing. Continued work with the figure in combination with a variety of other subject matter. Emphasis on the development of a body of work with a related idea. Studio fee. **Prerequisite(s):** (VAF 204, 304) or permission of department chairperson.

**VAF 426**  **PAINTING II**  
Directed advanced studio problems; contemporary issues in painting. Repeatable up to nine semester hours. Studio fee. **Prerequisite(s):** (VAF 325 or 326) or permission of department chairperson.

**VAF 440**  **CERAMICS III**  

Introduction to Raku, a 400-year-old Japanese ceramic glaze firing technique adapted for the contemporary potter. Study includes glaze formulation, handbuilding and/or wheel throwing techniques. Studio fee. 

**Prerequisite(s):** Permission of department chairperson.

**VAF 453 - PRINTMAKING III**

Advanced work in printmaking processes with an emphasis on the production of multi-color editions. Studio fee. 

**Prerequisite(s):** VAF 353.

**VAF 470 - ILLUSTRATION III**

Focus on developing an individual point of view and illustration style. Studio Fee. 

**Prerequisite(s):** VAF 380.

**VAF 490 - SPECIAL PROBLEMS**

A course for advanced individual work in fine arts. Approval based on academic standing and permission of instructor. Repeatable up to fifteen semester hours.

**VAF 498 - SENIOR/PROFESSIONAL SEMINAR - FINE ARTS**

Capstone course required of all B.A. and B.F.A. fine arts and art education (E11) majors, to be taken in the first semester of the senior year. Examination of aesthetic, cultural, ethical, and pragmatic issues in preparation for post-graduate experience. Studio fee. 

**Prerequisite(s):** Junior standing.

**VAF 499 - PORTFOLIO AND PAPER - FINE ARTS**

Completion and presentation of undergraduate portfolio and paper, to be reviewed by faculty and peers. Faculty approval of portfolio and paper is required for graduation. Studio fee. 

**Prerequisite(s):** VAF 498 or permission of department chairperson.

**VAH 101 - INTRODUCTION TO THE VISUAL ARTS**

Thematically-based, non-chronological introduction that covers the fundamental and varied roles that the visual arts have played and continue to play in the human experience. Open to all students.

**VAH 201 - SURVEY OF ART I**

Survey of Western art from pre-history through the late medieval period. Open to all students. Fee.

**VAH 202 - SURVEY OF ART II**

Survey of Western art from the late medieval period through the Baroque. Open to all students. Fee.

**VAH 203 - SURVEY OF ART III**

Survey of Western art from the eighteenth through the twentieth centuries. Open to all students. Fee.

**VAH 350 - WESTERN ARCHITECTURE**

Introduction to the history, theory, and practice of Western architecture from pre-history through the contemporary period. Open to all students. Fee.

**VAH 360 - ART HISTORY AND FEMINISM**

Introduction to feminist approaches to art history and women artists from the medieval period to the present. Open to all students. Fee.

**VAH 370 - AMERICAN ART**

Introduction to American art and architecture from the colonial period to the present. Open to all students. Fee.

**VAH 382 - HISTORY OF PHOTOGRAPHY**

History of the cultural, social, and aesthetic roles of photography from the camera obscura to 1945. Emphasis on the changing practice and perception of the medium as an art form, as social document, and as popular culture.
Open to all students. Fee.

VAH 383  HISTORY OF VISUAL COMMUNICATION DESIGN
Study of the significant developments, movements, and figures in the history of visual communication with an emphasis on the twentieth century. Open to all students. Fee.

VAH 450  ITALIAN RENAISSANCE ART
Introduction to the painting, sculpture, and architecture of Italy between c. 1300 and c. 1550. Fee. 
Prerequisite(s): VAH 202 or permission of instructor and department chairperson.

VAH 460  BAROQUE ART
Study of the major painters, sculptors, and architects of the seventeenth century. Fee. 
Prerequisite(s): VAH 202 or permission of instructor and department chairperson.

VAH 470  NINETEENTH-CENTURY ART I
Study of the major artists and movements in European art from Neo-Classicism to the beginnings of Realism. Fee. 
Prerequisite(s): VAH 203 or permission of instructor and department chairperson.

VAH 471  NINETEENTH-CENTURY ART II
Study of the major artists and movements in European art from Realism through Art Nouveau. Fee. 
Prerequisite(s): VAH 470 or permission of instructor and department chairperson.

VAH 480  TWENTIETH-CENTURY ART I
Study of the major movements and artists in the painting, sculpture, architecture, and other media from 1900 to 1945. Open to all students. Fee.

VAH 482  HISTORY OF PHOTOGRAPHY II
The history of photography from 1945 to the present. Open to all students. Fee.

VAH 483  TWENTIETH-CENTURY ART II
Study of the major movements and artists in painting, sculpture, architecture, and other media from 1945 to the present. Open to all students. Fee.

VAH 485  ART HISTORY SEMINAR
A seminar and capstone reading and research course concentrating on one art historical topic for detailed analysis. May be repeated as topics change. 
Prerequisite(s): Permission of instructor.

VAH 490  SPECIAL PROBLEMS
Advanced, independent study with faculty direction in art history. 
Prerequisite(s): One art history course or permission of instructor and department chairperson.

VAP 101  FOUNDATION PHOTOGRAPHY
Emphasis on learning and exploring the visual language of photographic imagery through a series of creative assignments. Fundamentals of black-and-white still photography: camera function, exposure, film processing, and printing. Students gain sound technical and creative control of the medium. Studio fee.

VAP 201  PHOTOGRAPHY II
Specific projects to develop personal expression and sustained creative growth, increased technical competence, and greater visual awareness. Students learn more advanced photographic techniques, including negative and printing controls, and different camera formats. Studio fee. 
Prerequisite(s): VAP 101 or equivalent.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAP 240</td>
<td>DIGITAL PROCESSES I</td>
<td>3</td>
<td>Introduction to the theory, ethics, aesthetics, and practice of computer graphic image digitizing, enhancement, compositing, and manipulation as applied to digital photography. Some prior knowledge of computers is helpful. Studio fee.</td>
<td>VAP 101 or permission of department chairperson.</td>
</tr>
<tr>
<td>VAP 302</td>
<td>COLOR PHOTOGRAPHY I</td>
<td>3</td>
<td>Introduction to techniques and aesthetics of color photography. Students utilize color sensitive films, papers, and digital technologies in the exploration of color photography. Studio fee.</td>
<td>(VAP 101, 240) or permission of department chairperson.</td>
</tr>
<tr>
<td>VAP 320</td>
<td>STUDIO PRACTICE I</td>
<td>3</td>
<td>Extensive use of large format camera, studio grip equipment, tungsten and electronic flash lighting techniques; still-life and portrait photography in a studio environment. Studio fee.</td>
<td>VAP 201.</td>
</tr>
<tr>
<td>VAP 321</td>
<td>STUDIO PRACTICE II</td>
<td>3</td>
<td>Emphasis on the production of a professional-quality portfolio which will demonstrate advanced knowledge of the studio and image production. Studio fee.</td>
<td>VAP 320.</td>
</tr>
<tr>
<td>VAP 331</td>
<td>ALTERNATIVE PHOTOGRAPHY II</td>
<td>3</td>
<td>Continuing work with alternative silver and non-silver processes. Emphasis on completion of an artist book or installation which demonstrates advanced technical command and aesthetic understanding of the processes employed. Studio fee.</td>
<td>VAP 330.</td>
</tr>
<tr>
<td>VAP 340</td>
<td>DIGITAL PROCESSES II</td>
<td>3</td>
<td>Continuation of the theory and practice of computer imaging and the electronic darkroom; the incorporation of digital images into other media. Emphasis on digital photography, computer graphic imaging, and the role of digital images in art and society. Studio fee.</td>
<td>VAP 240.</td>
</tr>
<tr>
<td>VAP 350</td>
<td>VIEW CAMERA</td>
<td>3</td>
<td>Extensive experience with the view camera, examination of refined techniques, various applications, and concepts of large format photography. Studio fee.</td>
<td>VAP 201.</td>
</tr>
<tr>
<td>VAP 402</td>
<td>COLOR PHOTOGRAPHY II</td>
<td>3</td>
<td>A continuation of color printing from negatives; completion of individual projects which will demonstrate an advanced understanding of the techniques and aesthetics peculiar to color photography. Studio fee.</td>
<td>VAP 302.</td>
</tr>
<tr>
<td>VAP 410</td>
<td>ADVANCED PHOTOGRAPHY</td>
<td>3</td>
<td>Students with a substantial commitment to photography and with demonstrated technical skills work on individual projects and participate in group critiques and discussion. Studio fee.</td>
<td>VAP 382; VAP 201, 302.</td>
</tr>
<tr>
<td>VAP 420</td>
<td>PHOTOJOURNALISM</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A variety of ways of using photography as documentation, narrative, and propaganda. Editing of work, layout, and image-text relationships. Personal photographic essay required. Studio fee.

**Prerequisite(s):** VAP 201.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAP 430</td>
<td>PROFESSIONAL PHOTOGRAPHIC APPLICATIONS</td>
<td>3</td>
</tr>
<tr>
<td>VAP 450</td>
<td>PHOTOGRAPHY INTERNSHIP</td>
<td>1-3</td>
</tr>
<tr>
<td>VAP 490</td>
<td>SPECIAL PROBLEMS IN PHOTOGRAPHY</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Problem-solving associated with professional photography; may include commercial, editorial, industrial, architectural, and illustrative photographic work both in the studio and on location. Studio fee.

**Prerequisite(s):** VAP 320 or permission of department chairperson.

Practical applications of photographic skills. Opportunities for advanced development and practical experience in professional working environments. Repeatable up to six semester hours for B.F.A. students.

**Prerequisite(s):** Permission of department chairperson.

Series of assignments to guide independent study in photography, formulated to meet individual needs of the student. Studio fee.

**Prerequisite(s):** VAP 201; permission of department chairperson.

Capstone course required of all B.A. and B.F.A. photography majors, to be taken in the first semester of the senior year. Examination of aesthetic, cultural, ethical, and pragmatic issues in preparation for post-graduate experience. Studio fee.

**Prerequisite(s):** Senior standing or permission of department chairperson.

Completion and presentation of undergraduate portfolio and paper, to be reviewed by faculty and peers. Faculty approval of portfolio and paper is required for graduation.

**Prerequisite(s):** VAP 408 or permission of department chairperson.

Defines and examines the process of beginning a program of education in the visual arts within the larger context of the College of Arts and Sciences and the University. Integrates pragmatic and conceptual issues critical to liberal learning for visual arts students.

**Prerequisite(s):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAR 100</td>
<td>VISUAL ARTS FOUNDATION</td>
<td>1</td>
</tr>
<tr>
<td>VAR 200</td>
<td>INTRODUCTION TO VISUAL ARTS COMPUTING</td>
<td>1</td>
</tr>
<tr>
<td>VAR 210</td>
<td>VISUAL JOURNAL</td>
<td>3</td>
</tr>
<tr>
<td>VAR 220</td>
<td>VISUAL RESOURCES</td>
<td>3</td>
</tr>
<tr>
<td>VAR 299</td>
<td>SECOND YEAR REVIEW</td>
<td>0</td>
</tr>
<tr>
<td>VAR 345</td>
<td>COMPUTER MODELING AND ANIMATION I</td>
<td>3</td>
</tr>
</tbody>
</table>

Requires successful completion of Visual Arts Second Year Review. Eligibility for the review is determined by the department and is based upon a student's progress within the major. Visual Arts Scholarship recipients complete this course during their second year in the major. The review is based upon prior Visual Arts coursework completed and in progress at the time of the review. Required for all Visual Arts majors.
Introduction to history, theory, and practice of three-dimensional computer modeling and animation for video, computer, and print media. Visualization, Cartesian space, simple polygonal modeling, surface rendering, and animation techniques will be explored. Studio fee.

**Prerequisite(s):** (VAP 240 or VAR 200) or permission of department chairperson.

**VAR 440 COMPUTER MODELING AND ANIMATION II**

Detailed study of spline-based modeling, surface rendering and mapping, editing complex animation sequences, motion control, and other topics. Studio fee.

**Prerequisite(s):** VAR 345.

**VAR 445 COMPUTER MODELING AND ANIMATION III**

Individual projects in conceptualization and production of animated sequence from storyboard to final presentation. Studio fee.

**Prerequisite(s):** VAR 440.

**VAR 477 HONORS THESIS PROJECT**

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.

**VAR 478 HONORS THESIS PROJECT**

Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.

**Prerequisite(s):** Approved 477 and approval of University Honors Program.

**VAR 490 SPECIAL PROBLEMS**

Advanced, independent study with faculty direction in a visual arts subject or topic that is not covered in existing, discipline-specific courses. Permission. Studio fee.
College of Arts and Sciences
(WGS) Women's and Gender Studies  (Collapse Description)

Women's and gender studies places the experiences and perspectives of women at the center of analysis and also considers how gender intersects with other factors, such as race and class, to shape all of our lives. Interdisciplinary in nature, and founded upon the integration of theory and practice, critique and imagination, women's and gender studies brings approaches from other disciplines and fields into conversation with each other and with critical theories about gender and power to address and improve the lives of women and, by extension, of children and men. Inspired by both feminist and Marianist traditions, the Women's and Gender Studies Program at UD seeks to promote integration, collaboration, and personal engagement in learning; the development and dissemination of critical thinking for social justice; the appreciation and protection of human dignity and diversity; and leadership through responsibility and service to community.

Students majoring in women's and gender studies must complete thirty-four to thirty-nine semester hours, including at least ten semester hours in the four core WST courses and twenty-four semester hours of upper-division courses offered by other departments. For these additional twenty-four semester hours, students must complete nine semester hours in one area of concentration, six semester hours in two additional areas, and three semester hours in a fourth area.

The major also requires at least three semester hours in approved courses with a global and/or multicultural perspective. These hours may be from a course or courses also used to fulfill the area requirements.

Courses taken for the major may also count toward completion of the Liberal Studies Curriculum.

Students minoring in women's and gender studies must complete at least fifteen semester hours, including WST 150 and twelve hours in approved upper-division courses (300-level or above) from at least three different disciplines.

Women's and Gender Studies Committee
Sheila Hassell Hughes (English), Director
Burnell (Counseling), Carlson (History), DesAutels (Philosophy), Fleischmann (History), Hume (History), P. Johnson (Philosophy), Leming (Sociology, Anthropology, and Social Work), Martin (Religious Studies), Martin (History), F. Pestello (Sociology, Anthropology, and Social Work), Potter (English), Rasmiller (Women's Center), Walters (Communication), Webb (Roesch Library), Whisnant (Philosophy)

Majors/Minors  (Collapse All)
Major/Minor Name
Bachelor of Arts with a major in Women's and Gender Studies (WGS)
Third area courses
Select six semester hours from one area

Fourth Area Courses
Select three semester hours from one area

Areas
Literature and Arts
CMS 415
ENG 319, 324, 329, 333, 335, 336, 380, 490
VAH 390, 485, 490

History
HST 347, 351, 352, 353, 354, 356

Philosophy and Religious Studies
PHL 307, 364, 440, 451, 490
REL 471, 472, 474, 492

Social Sciences
ANT 306, 392

POL 300, 421

PSY 443, 462, 493, 494, 495

SOC 322, 330, 331, 332, 333, 339, 355

SWK 327, 330, 392

UDI 341

Courses also approved for the three hour Global and Multicultural requirement
ENG 335
HST 353, 354, 356

PHL 364

REL 474

Liberal Studies Curriculum
Humanities and Fine Arts

Philosophy and Religious Studies 12

History 6

Literature: English or Foreign Language 3

Creative and Performing Arts 3

Foreign Language and/or Additional Arts and/or Humanities 3-9

Social Sciences 12

Mathematics (excludes MTH 102, 204, 205) 3

Natural Sciences 11

Communication Competencies 0-9

Introduction to the University: ASI 150 0-1

General Education courses/academic electives to total at least 124

1 In order to achieve some balance in approach, students must complete at least six semester hours each in both social sciences (anthropology, political science, psychology, sociology, and social work) and humanities (literature, arts, history, philosophy, and religious studies) courses. For this reason, social sciences must normally serve as the first, second, or third area, and not as the fourth.

2 This course can be counted only when the material is appropriate to women's studies. Consult the program director.

3 With approval from the program director, other courses with relevant content may count for this requirement.

Minor in Women's and Gender Studies (WGS)
Women's Studies

WST 150 and twelve semester hours in approved upper-division courses (300-level or above) from at least three different academic disciplines.

Students who wish to minor in women's studies should contact the director of the Women's and Gender Studies Program.

Courses (Collapse All Courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WST 150</td>
<td>INTRODUCTION TO WOMEN'S STUDIES</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to history, methods, and key debates in women's studies. Intersectional (studying gender as it intersects with other social identity categories such as race, class, and sexuality), multi- or interdisciplinary (drawing from the arts, humanities, social sciences, and natural sciences) and multicultural in approach.</td>
<td></td>
</tr>
<tr>
<td>WST 310</td>
<td>FEMINIST THEORY AND METHODOLOGY</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Examination of the intersections of feminist epistemology, methods, politics, and ethics. Consideration and comparison of a range of theories about gender, power, and knowledge that have shaped the development of feminist and womanist thought, research, practice, and movement in the U.S. and in other parts of the world.</td>
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<tr>
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<td><strong>Prerequisite(s):</strong> WST 150.</td>
<td></td>
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<tr>
<td>WST 380</td>
<td>SPECIAL TOPICS IN WOMEN'S STUDIES</td>
<td>1 - 3</td>
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<tr>
<td></td>
<td>Intensive examination of current thematic, theoretical, or methodological issues in the field of Women's Studies. Consult composite for topics. May be repeated as topic changes.</td>
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<td></td>
<td><strong>Prerequisite(s):</strong> WST 150; permission of instructor.</td>
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<tr>
<td>WST 390</td>
<td>SERVICE-LEARNING IN WOMEN'S STUDIES</td>
<td>1 - 3</td>
</tr>
<tr>
<td></td>
<td>Individualized placements in community organizations that enable students to apply and enrich their formal studies by engaging in service work that addresses women's needs and/or advances social justice in relation to gender. May be done as an independent or group study under the direction of a WST faculty member. May also be done in conjunction with another course. May be repeated up to a maximum of three semester hours.</td>
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<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> WST 150; permission of program director.</td>
<td></td>
</tr>
<tr>
<td>WST 477</td>
<td>HONORS THESIS PROJECT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> Approval of University Honors Program.</td>
<td></td>
</tr>
<tr>
<td>WST 478</td>
<td>HONORS THESIS PROJECT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Second of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and departmental chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with the department chairpersons.</td>
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<tr>
<td></td>
<td><strong>Prerequisite(s):</strong> Approved 477 and approval of University Honors Program.</td>
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</tr>
<tr>
<td>WST 480</td>
<td>INDEPENDENT STUDY IN WOMEN'S STUDIES</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>
Individual investigations of special topics in the field of Women's Studies under faculty direction. May be repeated under special circumstances. No more than six credit hours of WST 480 may count toward the major.

**Prerequisite(s):** WST 150; permission of instructor; approval of program director.

**WST 490  SENIOR SEMINAR IN WOMEN'S STUDIES**

Concentration on a particular topic or problem in women's studies, with focus on critical theories, methodologies, ethics and practices appropriate for advanced feminist research. Emphasis on integration (e.g. of feminist theory, methods, and practice) and interdisciplinarity. May require students either to collaborate on a single research project or to apply certain theories or methods central to the seminar in their exploration of individualized projects. May be repeated as topics change.

**Prerequisite(s):** WST 150, 310.