



UNDERGRADUATE COURSE CATALOG 2009-2010

MUSKINGUM UNIVERSITY

2009 – 2010 UNDERGRADUATE ACADEMIC CALENDAR

Fall Semester 2009

Tuesday, August 25 (11 a.m.)

Monday, August 24

Classes Begin Opening Convocation Add/Drop period ends

Friday, August 28 (5 p.m.) Monday, September 7 Friday, September 25

Last day to withdraw from 1st half classes Early assessment grades due to Registrar

Friday, October 9 Monday, October 12 Friday, October 16

Friday, October 2

1st half classes end 2nd half classes begin

Labor Day (classes as usual)

Monday-Tuesday, October 19-20

Add/Drop ends for 2nd half classes Fall break (no classes)

Tuesday, November 3 Tuesday, November 17 Last day to withdraw from full semester courses Last day to withdraw from 2nd half classes

Wednesday-Friday, November 25-27

Thanksgiving break (no classes) Classes end

Classes begin

Friday, December 4 Monday-Friday, December 7-11

Final examinations

Tuesday, December 15 (noon)

Final grades due to Registrar

Spring Semester 2010

Monday, January 11

Friday, January 15 (5 p.m.)

Add/Drop period ends

Monday, January 18 Monday, February 15 Monday, February 22 Martin Luther King, Jr. Day (no classes) Last day to withdraw from 1st half classes Early Assessment grades due to Registrar

Monday, March 1 Tuesday, March 2 Monday-Friday, March 8-12

2nd half classes begin Spring break (no classes)

1st half classes end

Monday, March 15

Add/Drop ends for 2nd half classes

Monday, March 29 Thursday-Friday, April 1-2 Last day to withdraw from full semester courses

Friday, April 9

Easter Holiday (no classes)

Wednesday, April 14 Wednesday, April 28 Scholarship Recognition Day Program Last day to withdraw from 2nd half classes

Thursday, April 29

Classes End Study Day

Final examinations

Friday-Thursday, April 30-May 6 (excluding Sat. & Sunday, May 1 & 2)

Commencement

Saturday, May 8 or Sunday, May 9 Wednesday, May 12 (noon)

Final grades due to Registrar

May Term 2010

Monday, May 10

Classes Begin

Monday, May 31 Memorial Day (no classes)

Thursday, June 3 Classes End Final examinations

Friday, June 4 Wednesday, June 9 Final grades due to Registrar

Special Dates

Friday-Saturday, October 24-25

Homecoming

Friday-Sunday, April 9-11

Scholarship/Parents Weekend

Friday-Sunday, June 18-20 Alumni Weekend

On the Cover: The Walter K. Chess Center

Muskingum University Catalog 2009-2010

Muskingum University 163 Stormont Street New Concord, Ohio 43762 740/826-8211 http://www.muskingum.edu

Muskingum University admits students of any race, color, religion, sex, national or ethnic origin, handicap, physical challenge, disability, sexual orientation, socio-economic status and political affiliation.

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The 2009-2010 Muskingum University Catalog describes the program that will be offered by the University in this academic year. Every effort has been made to reflect the Muskingum University program, policies and procedures in this Catalog. The University reserves the right to change, without notice, rules, policies, fees, curricula, courses, or other matters. Any course may be closed at any time because of limited resources, or canceled for reasons beyond the University's control, such as faculty unavailability or enrollment insufficiency.

Muskingum Profile

Degrees: Bachelor of Arts; Bachelor of Science; Bachelor of Science in Nursing; Master of Arts in Education; Master of Arts in Teaching; Master of Information Strategy, Systems, and Technology

Expenses:

Undergraduate Expenses for Two Semesters (2009-2010):

Tuition	\$19,190	
Room and Board (\$3,750)	\$7,740	
Matriculation (\$220) and Student A	ctivities (\$230) \$450	
Technology (\$350), and Laundry (\$1	10)\$460	
Graduate and Muskingum Adult Program (MAP) Tuition (2009-2010)		
Tuition	\$370 (per semester hour of credit)	

Admission Requirements:

Recommended:

Undergraduate: 15 units of secondary school

4 units English

2 units foreign language3 units college prep math

2 units science2 units social science

2 other units approved by accredited high school

Graduate: Earned baccalaureate degree from a regionally

accredited college or university, with a minimum grade point average of 2.70. Individual degree programs may have additional requirements including a higher minimum grade point average.

Admissions Programs: Early Admissions, Advanced Placement, Transfer Students, and Rolling Admission Plan

Enrollment (Fall 2008): 1,689 undergraduates, 446 graduate students

Faculty: 102 full-time, 93% with terminal degrees, 15:1 student-faculty ratio

Library: The library's holdings include 218,224 volumes, 224 print journals, 13 daily/weekly newspaper subscriptions, and -through 140 databases— access to 12,000 full-text online journals. In addition the Library provides access to 40,000 full-text electronic books and thousands of images, videos and sounds. As a member of OPAL and OhioLink consortia, library services to Muskingum students, faculty and staff include borrowing privileges at 90 academic libraries throughout the state.

Campus: 225 acres with 20 major buildings

Location: New Concord: 125 miles south of Cleveland, 70 miles east of Columbus

- Undergraduate Disciplinary Majors: Accounting, Accounting (Public), Art, Biology, Business, Chemistry, Christian Education, Computer Science, Digital Media Design, Early Childhood Education, Earth Science, Economics, Engineering Science, English, French, Geology, German, Health Education, History, Mathematics, Middle Childhood Education, Music, Music Education, Nursing, Philosophy, Physical Education, Physics, Physics Education, Political Science, Psychology, Religion, Sociology, Spanish, Special Education, Speech Communication, Theatre
- Undergraduate Interdisciplinary Majors: American Studies, Child and Family Studies, Conservation Science, Criminal Justice, Environmental Science, Humanities, International Affairs, International Business, Journalism, Molecular Biology, Neuroscience, Public Affairs, Self-Designed
- Undergraduate Teacher Licensure: Early Childhood, Middle Childhood, Adolescent/Young Adult, Multi-Age Health and Physical Education, Multi-Age Foreign Language, Multi-Age Music, Multi-Age Visual Arts, and Intervention Specialist, Mild/Moderate (ages 5-21)
- Graduate Teacher Licensure: Early Childhood (initial licensure); Early Childhood (second licensure); Middle Childhood; Adolescent/Young Adult; Early Childhood Intervention Specialist; Intervention Specialist Mild/Moderate (initial licensure); Intervention Specialist Midd/Moderate (second licensure); Intervention Specialist Moderate/Intensive (initial licensure); Intervention Specialist Moderate/Intensive (second licensure); Intervention Specialist Talented and Gifted; Principal, Ages 3-14; Principal, Ages 8-21; Early Education of the Handicapped (validation); Early Childhood Development (validation); Reading (endorsement); Talented and Gifted Endorsement
- Pre-professional Programs: Christian Ministry, Dentistry, Engineering (affiliate program with Case Western Reserve University, Cleveland, Ohio), Law, Medical Technology (affiliate program with Southwest General Hospital, Middleburg Heights, Ohio), Medicine, Physical Therapy, Speech Pathology and Audiology (affiliate program with Kent State University, Kent, Ohio), Veterinary Medicine

General Information

Location

Muskingum University, located in east-central Ohio, is easily accessible by major east-west and north-south highways. The Village of New Concord, Muskingum's home town, is located on US 22 and 40, along Interstate 70, 115 miles west of Pittsburgh and 70 miles east of Columbus. U.S. Interstates 77 and 70 intersect ten miles east of New Concord near Cambridge; Zanesville is sixteen miles to the west.

History

Chartered in 1837 as Muskingum College, Muskingum University is rich in tradition, its proud heritage reaching back to the first half of the nineteenth century when Ohio was an infant state and covered wagons were bringing adventurous settlers westward through New Concord over the newly-completed National Road. The institution's Indian name, sometimes mispronounced and often misspelled, is a source of pride to those who cherish the history of that colorful part of frontier America "beyond the Alleghenies."

During its first half-century, Muskingum adhered to the educational patterns of the classical college of the period. In 1854, women were admitted on an equal basis with men. After the Civil War, a period of steady growth began, accelerating until the frontier classical college of less than a hundred students had evolved into a modern liberal arts and sciences college. Today, approximately 1,700 undergraduates and more than 1,000 graduate students study on Muskingum's beautiful 225-acre campus.

When Franklin College, an important educational institution of the Presbyterian Church in the 19th century, closed in 1927, its alumni rolls came to Muskingum.

In January 2000, Dr. Anne C. Steele became Muskingum University's 20th President. In 2009, Muskingum acquired university status.

Presbyterian Heritage

On March 18, 1837, the state legislature granted a group of New Concord citizens a charter to establish a college in the Village. Because the community was settled largely by farm people of Scots-Irish descent, the predominant religion was Presbyterian. In 1877, Muskingum became associated with the Synod of Ohio of the United Presbyterian Church. With the merger of the Presbyterian and United Presbyterian churches in 1958, Muskingum became associated with the newly-created United Presbyterian Church in the USA. In 1983, that church merged with the Presbyterian Church in the United States to form the Presbyterian Church USA. Muskingum's direct affiliation is with the three-state Synod of the Covenant.

Accreditation and Memberships

Muskingum University has been continuously accredited since 1919 by the North Central Association of Colleges and Schools (renewed in 2003) and is authorized by, and receives periodic reauthorization from, the Ohio Board of Regents to grant its degrees. The program in chemistry is approved by the

American Chemical Society. The Muskingum University Teacher Education Unit is accredited by the National Council for Accreditation of Teacher Education (NCATE) for both initial and advanced programs. Muskingum University is fully approved for teacher education by the Ohio Department of Education and is a member of the Interstate Certification Compact which provides for comparable certification in numerous other states including Pennsylvania, New York and New Jersey. Muskingum University is an accredited institutional member of the National Association of Schools of Music.

Muskingum holds memberships in the American Council on Education, the Council for the Advancement and Support of Education, the Council of Independent Colleges, and the Association of Independent Colleges and Universities. The University is also a member of the Ohio Confederation of Teacher Education Organization (OCTEO).

Mission

The mission of Muskingum University is to offer quality academic programs in the liberal arts and sciences in the setting of a residential, coeducational, church-related university and in the context of a caring community where individual fulfillment is encouraged and human dignity is respected. Its primary purpose is to develop—intellectually, spiritually, socially and physically—whole persons, by fostering critical thinking, positive action, ethical sensitivity and spiritual growth, so that they may lead vocationally productive, personally satisfying and socially responsible lives.

Campus

Muskingum's scenic campus occupies 225 acres of rolling land in the village of New Concord. A small lake near the center of the campus is crossed by a foot bridge connecting the academic area, on one hill, to three of the residence halls on another. Nearby is the 3500-seat football stadium. Artificial field turf was added to Sherman Field in McConagha Stadium in 2005. An eight lane all-weather track around the football field was completed in 1981, and in 1986 Muskingum's recreation center was opened. In 2004 the state-of-the-art Philip and Betsey Caldwell Hall, a communication arts complex, was dedicated. The newest facility, the Walter K. Chess Campus Center, features an elevated pedestrian walkway which unites the two residential complexes. Also on the campus are a softball field, a baseball diamond, a number of athletic fields for intramural sports and varsity practice and nine tennis courts. The McAllister Biology Station, a 57-acre tract of land located in nearby Otsego, is used as a biology preserve and study area.

Academic Facilities

A description of the major university facilities follows:

The Boyd Science Center (1971) is a four-floor building housing the biology, nursing, chemistry, geology, mathematics and computer science, and physics and engineering departments, along with the modern language department, and the computer and network services center. It has modern facilities and

laboratory equipment for undergraduate science instruction, including: proton nuclear magnetic resonance spectrometers, ultraviolet-visible light spectrophotometers, microcomputer-based physics and engineering laboratories, mass spectrometer, infrared spectrophotometer, carbon-13 nuclear magnetic resonance spectrometer, x-ray diffraction equipment, an image analysis system and the University's shared servers, network, voice, and PBX systems. The Science Center was named in memory and honor of Thomas A. and Grace Jean Bethel Boyd, alumni of Muskingum, in 1990. Mr. Boyd was known for his research on fuel.

Brown Chapel (1912) is a multipurpose building which serves as church, chapel, auditorium, and classroom. Its main auditorium seats 500 and houses an organ whose moveable console permits its use for recitals and church services. The lower level contains a lounge area, music practice rooms, a small chapel and offices. The chapel was named for J. M. Brown of Wheeling, West Virginia, a benefactor of the university and long-time member of the board of trustees.

Philip and Betsey Caldwell Hall (2004) honors the extraordinary legacy of Philip and Betsey Caldwell, lifelong champions of higher education. A 1940 Muskingum graduate and member of the Board of Trustees for 37 years, Mr. Caldwell served as chairman and chief executive office of Ford Motor Company. Mrs. Caldwell, a graduate of the University of North Carolina, has participated in many historic restoration and preservation initiatives and, for many years, was a member of the Mount Vernon Advisory Board.

Caldwell Hall is a state-of-the-art academic building that includes classrooms equipped with advanced information technology, television and radio studios, a 250-seat theatre, an experimental theatre, costume and set design laboratories, an exhibit hall, and faculty offices.

Cambridge Hall (1929) was built largely with funds contributed by citizens of nearby Cambridge. Formerly housing the natural sciences, it was remodeled in 1972 for use by the social science division, and remodeled again in 2004 for additional use by the English department. Along with classrooms, it contains seminar rooms, faculty offices, and student computer laboratories.

Walter K. Chess Center (2008) is a new student activity center honoring Dr. Walter K. Chess (Class of 1943) and his life-long dedication and generosity to Muskingum. The Center is part of the student residential complex and contains spaces for study, student meetings and social gatherings, a fitness area, a library annex, food services, and a lounge with resources related to careers, study abroad, internships, and other programs that enhance the educational experience of Muskingum undergraduate students. State-of-the-art technology links the Center to resources throughout the campus. A pedestrian bridge from the upper level of the facility connects the two major residential areas of the campus, thus making the Chess Center the hub of student life.

Computer, Data, and Voice Facilities are provided through a robust backend and fiber optic infrastructure. Server environments are UNIX-based while client systems utilize current versions of the Microsoft Windows operating system. Muskingum's academic quadrangle houses three large open access laboratories and eight discipline-specific facilities for Art, Theatre, Graphic Arts, Computer Science (Linux), Physics and Engineering, Modern Languages, Music, Psychology, and Education (wireless laptops). In the residential areas, four additional seven-day/24-hour open access facilities are maintained. Each facility is equipped with a laser printer while image scanning and plotting are provided separately as needed. All campus offices, laboratories, and residential rooms are provided with data and voice services which include internet, local dial tone, voice mail, and long distance access.

John Glenn Physical Education Building (1935) was named in 1962 in honor of the distinguished astronaut/senator alumnus. It houses two gymnasiums, a swimming pool, and recreational equipment. Extensive renovations in 2007 include new locker rooms and state-of-the-art athletic training facilities.

The University Library (1960) accommodates 180 students for group or individual study. Its collections include more than 218,224 items including 224 print journals and 13 daily/weekly newspaper subscriptions. In addition the Library provides access to 140 research databases, 12,000 full-text electronic journals, 40,000 full-text electronic books, and thousands of images, video and sounds. As a member of OPAL and OhioLINK consortia, library services to Muskingum students, faculty, and staff include borrowing privileges at 90 academic libraries and 120 campuses throughout the state. The Library is an official depository for United States and State of Ohio publications and information. The Muskingum Library online catalog and other electronic library resources are available to students and faculty at www.muskingum .edu/~library as well as in the library itself.

Montgomery Hall (1921) the campus administrative hub, contains administrative and faculty offices and classrooms. It is named for Dr. J. Knox Montgomery, Sr., President of Muskingum from 1904 to 1931.

Ruth and John Neptune Art Center (2008) honors John (Class of 1942) and Ruth Dorsey (Class of 1940) Neptune. Early in his career, Dr. Neptune taught chemistry at Muskingum and later joined the faculty of San Jose State University, where he held the H. Murray Clark Chair of Chemistry. Ruth was chair of Muskingum's Art Department from 1944-48, taught in public schools in Wisconsin, and taught painting, watercolor, fiber arts, and mosaics throughout her long career in the arts and arts education. The Neptune Center will house both two-dimensional (painting, photography) and three-dimensional (ceramics and sculpture) until Paul Hall is renovated to become the permanent space for two-dimensional art. Thereafter, the Neptune Center will be dedicated to the teaching of ceramics and sculpture. The facility contains state-of-the-art studio space, one gas-fired and two electric kilns, and specialized equipment which supports the work of student artists, photographers, and sculptors.

Paul Hall (1873) the oldest building on campus, is named for Dr. David Paul, President of the College from 1865 to 1879. A National Historic Site, the building houses the music faculty.

The Recreation Center (1986) connects on all floors with the John Glenn Physical Education Building to provide a complete varsity and intramural complex. Its construction was made possible by the contributions of over 5,000 donors to the University's Design for Tomorrow planning and fundraising program in the 1980s. The facility includes a varsity gymnasium with seating for 2,800; a racquetball court; gymnastics, conditioning and training rooms; a practice room for baseball, softball, golf and archery; locker rooms for students, faculty, staff and officials; an observation lounge; and offices and seminar/conference rooms.

The Quad Center (1960), the campus social center, houses lounges, the Bait Shop snack bar, mail room, campus bookstore, meeting rooms and administrative offices, including student life.

The Wellness Center (2002) provides regular physician hours, a pharmacy and treatment for minor illnesses; available on campus for residential students.

Residence Halls

The majority of students live in the residence halls that are clustered atop two hills overlooking the football field, the lake and the Hollow. Finney, Kelley, and Patton make up the East Residence Area. Additionally, a number of thematic Program Houses are located along Lakeside Drive. The West Residence Area is comprised of Memorial, Moore, and Thomas Halls, and the Townhouses.

Finney Hall (1961) named for the late Harold P. Finney of Cleveland, a benefactor and former chairman of the board of trustees, houses 130 first-year and upper-class men and women.

Kelley Hall (1956) is the largest residence hall on campus and is named for Ruth Kelley Montgomery, wife of 1932-1962 Muskingum President, Robert Montgomery. Kelley houses 240 first-year and upper-class men and women.

Memorial Hall (1951) was built as a memorial to Muskingum alumni who served in World War II. The building accommodates 100 first-year and upper-class women.

Moore Hall (1958) housing more than 100 first-year and upper-class men, is named for the late Paul M. Moore of Aliquippa, Pennsylvania, a longtime member of the board of trustees and a benefactor of the University.

Patton Hall (1922) reopened in the summer of 1996 after major renovations. Named for Emma Patton Montgomery, wife of John Montgomery, President of Muskingum from 1904-1931. It houses 120 upper-class students and is home to several Muskingum social clubs.

Program Houses are individual houses which accommodate from 6 to 14 students. Houses typically include the language houses.

Thomas Hall (1961) accommodating 150 first-year and upper-class men and women, is named for the late Roger Crile Thomas and his brother, Paul M. Thomas, of Phoenix, Arizona.

The Townhouses (1998) are Muskingum's newest housing facility. The 12 suites accommodate 72 students.

International Education

Muskingum University intentionally promotes programs that encourage and develop international awareness and understanding. Formal student exchange agreements exist between the University and institutions around the world, with a wide range of additional study abroad opportunities available. The Liberal Arts Essentials (LAE) program requires exposure to international perspectives, and an international faculty and student body add diversity to the campus. The curriculum features a significant and growing amount of coursework in foreign studies, international business, international affairs, and foreign languages and literatures.

Muskingum Adult Program (MAP)

The Muskingum Adult Program allows students to earn a bachelor's degree by taking courses offered during evenings and weekends. Most three-credit courses meet once each week for three and one-half hours. Classes are available on the New Concord campus and at other regional locations.

MAP students can choose to major in Accounting, Accounting (Public), Business, Criminal Justice, Early Childhood Education, and Intervention Specialist: Mild to Moderate.

Typical MAP courses are at the upper level (300 and 400-level) and are designed to provide more advanced professional and academic study for students who have completed an associate's degree or about 60 semester hours of credit. Students who have earned fewer than 60 credits, however, may still enter the MAP program. Additional information is available from the Graduate and Continuing Studies Office.

Center for Advancement of Learning

Created in 1983, the Center for Advancement of Learning provides academic support to students through the following programs:

The PLUS Program provides comprehensive academic support services to students with learning disabilities and/or AD/HD. The highly qualified adult, professional learning consultants use a systematic learning strategies instruction approach to help students learn and build on their strengths, and develop lifelong learning and self-advocacy skills that are essential to success in college, work, and life pursuits.

The Learning Strategies and Resources Program (LSR) offers weekly study skills workshops which provide opportunities for students who are pre-selected for academic support to further develop skills needed for academic proficiency.

PLUS Program

As defined by the National Joint Committee on Learning Disabilities (LD), learning disabilities are a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities, occurring in persons of average to very superior intelligence and presumed to be due to central nervous system dysfunction.

As defined by the ADD Coach Academy, Attention Deficit Hyperactivity Disorder is a neurobiological condition that affects children and adults who consistently experience challenges in impulsivity, hyperactivity and the ability to pay attention. Executive functioning describes the cognitive abilities that challenge those with AD/HD – the brain is inefficient when it comes to planning, organizing, working memory and self-regulation.

The PLUS Program provides comprehensive academic support services for students with high incidence learning differences, such as Learning Disabilities (LD) and Attention Deficit Hyperactivity Disorder (AD/HD). This distinctive program has been well-established for more than 25 years and is unique among colleges and universities.

Muskingum's PLUS Program is built upon a learning strategies instructional model that is proven to be effective for students with LD and/or AD/HD. Using this model, adult, professional learning consultants assist students by providing systematic and explicit instruction in learning strategies that are embedded in course content. Coaching techniques to support higher order thinking, self-awareness and self-advocacy are also employed.

This proven model of learning strategies instruction is used to strengthen skills in areas such as time management, reading, writing, exam preparation, study skills and memory. Learning strategies that involve comprehension, organization, planning, memory and self-regulation are often difficult for students with LD and/or AD/HD. However, to meet the rigorous academic demands of the university, students must know and effectively use individualized cognitive learning strategies.

Highly qualified, adult, professional learning consultants embed learning strategies within a student's course content, assist the student in learning and practicing these individualized strategies and help the student adapt the strategies to other courses and situations.

When these vital skills and strategies are obtained in a supportive environment, and time and opportunity are allowed for the student to accept the value of the instruction, in combination with self-awareness, the student is empowered to take charge of his or her own learning process and become a successful learner.

The PLUS Program offers a continuum of services to provide a range of individualized academic support. PLUS Program services include one-to-one and/or small group tutorial sessions to enhance student learning and application of academic skills, and program advising to guide students towards a balanced course load and optimal course selection, thus maximizing the student's potential for success. Students are also provided a Primary Learning Consultant who acts as a liaison between home, faculty and others.

The Chatback organization is a club that provides a forum for students to share experiences and offer support, as well as to educate the community on issues involving learning differences.

Through the PLUS Program, students will strengthen skills needed to advocate on their own behalf, discover their unique learning profile, direct and manage their own learning process, acquire life-long learning skills and develop time management, organization, planning, comprehension and other self-regulating skills needed for academic success.

A PLUS student's admission to Muskingum University is conditional upon the student's participation in the full PLUS Program for a minimum of the first two semesters. Thereafter, students may participate in the Full Program or the Maintenance Program. PLUS Program fees are based on these two levels of tutorial instruction participation and other services provided.

Learning Strategies and Resources (LSR)

The LSR Program was initiated in 1992 with the purpose of providing limited academic support to pre-selected students. Support includes weekly LSR workshops conducted by professional staff. Study skills instruction is provided in areas such as time management, textbook reading, note-taking, goal setting, exam preparation as well as writing. LSR instruction during the second semester focuses on involving students in the various resources on campus to assist them in enhancing their academic performance and generalizing strategies for successful performance across the curriculum. In addition, the professional staff assists students with understanding more about themselves and the way they learn, which in turn assists them in becoming more proficient learners.

Americans with Disabilities Act (ADA) Compliance

All students with disabilities have certain rights under federal law. Reasonable accommodations or academic adjustments are required by Section 504 of the Rehabilitation Act of 1973. This act was designed to prevent discrimination against individuals because of their disabilities. The Americans with Disabilities Act (ADA), signed into law in July 1990, extends the coverage of basic civil rights legislation to a wide range of public and private entities, including post-secondary educational institutions.

Muskingum University makes available to qualified students with disabilities those reasonable accommodations necessary to provide appropriate access to the learning environment and the opportunity to demonstrate academic achievement.

In order to access services and protections under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, individuals with disabilities must submit specific documentation. Reasonable accommodations are based upon this documentation with input from the person for whom the accommodations are being requested. The evaluation and documentation must be conducted and written by a qualified evaluator, be recent and include a clear diagnosis, evidence of assessments used, a descriptions of the impairment and how it substantially limits one or more major life functions, the accommodations requested, and an evidence-based rationale that establishes need for the recommended accommodations.

Those who are requesting accommodations or auxiliary services should submit their documentation to the Executive Director for the Center for Advancement of Learning. The Disability Education Office is located in Montgomery Hall 223 and the phone number is 740-826-8280. The scope and amount of accommodation and/or auxiliary aids to be provided is determined on an individual basis, depending upon the extent and nature of the students' challenging conditions. Accommodations and auxiliary aids are facilitated by the Disability Education Office, located in Montgomery Hall 223 and provided at no charge. For more information, please go to www.muskingum.edu/home/cal/ada.

Accommodations and auxiliary aids, such as those that are physical/environmental in nature, are arranged by the University's Human Resources Coordinator, Compliance Coordinator, Montgomery Hall, 740-826-8114.

Non-Discrimination Statement

Muskingum University does not discriminate on the basis of race, color, religion, sex, national or ethnic origin, age, handicap, physical challenge, disability, sexual orientation, socioeconomic status or political affiliation, in admission or access to, or treatment or employment in its education programs and activities, including rights and privileges, educational policies, scholarship and loan programs, athletic activities and school-administered programs. The Human Resources Coordinator, Compliance Coordinator, has been designated to coordinate the University's compliance with the nondiscrimination requirements under Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972 and the Age Discrimination Act of 1975, which prohibit discrimination on the basis of handicap, race, sex and age, respectively. The Human Resources Coordinator, Montgomery Hall, may be contacted at (740) 826-8114.

Grievance Procedure

Muskingum University's internal grievance procedure provides for prompt and equitable resolution of complaints made by students and employees alleging any action prohibited by US Department of Education, Office for Civil Rights, regulations implementing Section 504 of the Rehabilitation Act of 1973, as amended, (29 USC 794), and Title IX of the Education Amendments of 1972 which prohibit discrimination on the basis of handicap and sex, respectively. Complaints should be set forth in writing and addressed to the Human Resources Coordinator, Compliance Coordinator, Montgomery Hall, (740) 826-8114, who has been designated to coordinate the University's compliance activities pursuant to the indicated regulations. The full text of the grievance procedure pertaining to alleged handicap or sex discrimination, as well as the grievance procedures applying to other matters, may be found in such university publications as *The Student Handbook* or *The Faculty Handbook*.

Availability of Student Records

Muskingum University abides by the Family Educational Rights and Privacy Act of 1974 as amended. All students have access to their education records on file with the University and have the right to challenge records they feel are inaccurate. Further information is available from the Registrar's Office.

Sources of Consumer Information

Muskingum University's undergraduate academic programs and policies are described in this catalog. Graduate academic programs and policies are described in the *Graduate Catalog*.

More specific information about undergraduate programs is available from the Registrar, departmental chairs and in *The Student Handbook* at www.muskingum.edu/home/registrar/academiccatalogs.html. Additional information about graduate programs is available from the Office of Graduate and Continuing Studies, and from program directors.

Accreditation documents can be reviewed in the Office of the Vice President for Academic Affairs.

Muskingum's costs and refund policy are detailed in this catalog and in printed material available, along with specific information about financial aid programs and the rights and responsibilities of aid recipients, in the Office of Student Financial Services.

Information concerning specific fees and charges is available from the Business Office.

"Student Right to Know" Act

Information pertaining to the "Student Right to Know" Act and PRAXIS results (listed in the Education Department's section in this catalog) for Muskingum University's Teacher Education students is available on the Muskingum University website, www.muskingum.edu or in hard copy form from the Registrar and the Office of Admission.

Annual Crime Statistics Disclosure

Muskingum University provides statistics for the previous three years concerning reported crimes which have occurred on campus, in certain off-campus buildings, and at property owned or controlled by the university. In addition, this report includes crimes on public property within or immediately adjacent to and accessible from campus. The report also includes institutional policies concerning campus security such as policies concerning crime prevention, the reporting of crimes, alcohol and drug use, sexual assault, and other matters. This report is available at www.muskingum.edu/~safety/safetyoncampus.html or by contacting Campus Police.

Admission

Muskingum University seeks motivated students who demonstrate potential for continued growth and evidence of academic ability. Admission is based on a combination of coursework, academic performance, standardized tests (ACT/SAT for undergraduate admission) and accomplishments outside the classroom.

Graduate Admissions

Information about graduate admissions policies and procedures is available in the *Graduate Catalog* and the Graduate and Continuing Studies Office (Montgomery Hall 117).

Muskingum Adult Program (MAP)

Information about the Muskingum Adult Program (MAP) and admissions policies and procedures are available in the MAP *Guidebook* and the Graduate and Continuing Studies office.

Undergraduate Admissions

It is expected that the applicant will have completed a minimum of 15 units of secondary school work and have a high school diploma. Recommended are at least four units of English, two of foreign language, three of college preparatory mathematics, two of science, three of social science, and other units approved by an accredited secondary school for graduation. However, exceptions can be made for applicants who show strong academic promise but who may not meet these specific recommendations.

Application Procedures

An application may be submitted after completion of the junior year in high school. The general procedure follows:

- 1. Obtain an application for admission from either the Admission Office, or access the on-line application from the Muskingum University website www.muskingum.edu.
- 2. Complete and return the application or submit it electronically to the Admission Office. There is no application fee.
- 3. Submit the results of either the ACT of the American College Testing Program or the SAT of the College Board.
- Have the high school guidance counselor complete the Secondary School Report Form and submit it to the Admission Office along with an official transcript.
- 5. Applicants are strongly encouraged to complete a personal statement as part of the application for admission.

In addition to the regular university requirements, a student seeking to major in music must satisfactorily complete an audition with the music faculty. Arrangements for the audition are made directly with the music department.

Applicants to the PLUS Program for students with a diagnosed learning disability or handicapping condition should review the special application instructions discussed in the section dealing with that program.

Muskingum follows a Rolling Admission Plan. Qualified applicants are considered as soon as the necessary credentials, including the results of the ACT or SAT tests, have been received.

After being admitted a student is asked to pay a \$150 tuition deposit. The deposit, refundable until May 1, is held in escrow and applied to the first semester attended. For students living in on-campus housing, a portion of the deposit is held as a room damage deposit.

Early Admissions

A secondary school student with superior academic achievement may be admitted to study at Muskingum at the end of the junior year. Further information may be obtained from the Admission Office.

Accelerated Degree Option

Muskingum University offers students the opportunity to complete their degree requirements in fewer than four years. Students interested in pursuing an accelerated program must have above-average academic records and a focused academic area of interest upon entrance. Many academic courses of study can be completed in three years, though certain majors will require the more standard four-year time frame. Students participating in an accelerated program must be prepared to undertake the following: declare a major by the end of the first year, take increased course loads (more than the customary 15-16 semester credit hours), earn credit through avenues such as the Post Secondary Options Program, Advanced Placement, internships, proficiency exams, and May Term (summer session).

Lifelong Learning Program

Alumni holding baccalaureate degrees from Muskingum University are eligible to take further undergraduate coursework at Muskingum at no tuition cost. Alumni must apply for admission as non-degree seeking students; there is no charge for this application. Upon readmission, alumni are entitled to enroll tuition-free in one course of up to four credit hours per semester, during fall and spring semesters. Enrollment is limited to regularly scheduled undergraduate courses on a space-available basis, and not all courses are available through this option. Courses leading to teacher licensure or professional certification are excluded. Information about this option is available in the Office of the Registrar. Following registration by tuition paying students, enrollment will be granted in any course which meets minimum enrollment and which has not reached the maximum enrollment at the time established by the University for confirming status of offerings. The waiver excludes any course charges covered by federal or state financial assistance in grant form for which the student is eligible. Students are governed by existing academic policies.

Advanced Placement and Credit by Examination

Entering students may receive advanced placement, with or without college credit, by giving clear evidence of competence in courses tested by the College Board Advanced Placement Program (AP). Minimum scores for credit are listed by subject on the Registrar's web site. Additional options may include

the College Level Examination Program (CLEP), Defense Activity Non-Traditional Educational Support (DANTES), and Proficiency Examination Program (PEP) of the American College Testing Program. Proficiency exams may be administered at the discretion of each department or program coordinator. Students interested in proficiency exams must contact the chair of the appropriate department, or the program coordinator, and examinations are administered by the academic departments, or by the program coordinator. Placement and the number of credit hours are determined following review of the individual examinations, appropriate secondary school coursework, and personal interviews as needed. For more information, contact the Registrar's Office. Additional fees may apply for any of the above examinations.

Home Schooled Students

Applicants who have been home schooled during their secondary school career must supply the following information with their application for admission:

- A course portfolio listing titles, content, textbooks used, and projects completed.
- A Certificate of Completion of a Home Schooled Program that is recognized
 by the state. Proof must be provided by the student. A Certificate of
 Completion of a home schooled program is considered the equivalent of
 high school diploma if the program is a recognized home-study program.
 If the Home Schooled Program is not recognized by the state, the student
 must provide a statement that certifies the completion of high school
 through a Home Schooled Program.

In those states where Home Schools are not recognized, a student can be eligible if the state did not consider them to be in violation of truancy laws. Proof must be provided by the student. In the absence of a Certificate of Completion or proof of compliance with state truancy laws, successful completion of the General Education Diploma (GED) will suffice.

- SAT or ACT test results.
- An on-campus interview.
- A letter of recommendation (from someone other than a parent).

Transfers

Students interested in transferring to Muskingum must submit an application for admission, a secondary school transcript, and official transcripts of all post secondary work. Those who have not taken the ACT or SAT should consult the Admissions Office about that requirement.

Credit may be received for courses from accredited institutions in which a grade of C (2.00) or better has been earned. Transfer determination includes such factors as type of course, content, and time since completion.

Muskingum adheres to the Ohio Board of Regents Transfer & Articulation Policy (1993). Satisfactory completion of the Transfer Module from another Ohio institution partially satisfies requirements of the Liberal Arts Essentials.

Muskingum has articulation agreements with Art Institutes International, Belmont Technical College, Clark State Community College, Zane State College, and Washington State Community College.

Upon matriculation as a degree seeking student at Muskingum, a graduate of an accredited Associate of Arts or Science program is awarded junior standing (a minimum of 60 hours). All transfer work beyond 60 hours will be accepted on a course by course basis. The baccalaureate degree may be earned upon satisfactory completion of all Muskingum University degree requirements and completion of a minimum of 48 hours at Muskingum.

PLUS Program

Selection of students for admission to the PLUS Program is carefully managed by the program's administrators and the admission team. A student's initial application should include all materials as required for regular admission to Muskingum University. In addition, the applicant should submit a recent comprehensive neuropsychological or psycho-educational evaluation. The evaluation should be conducted within the last three years by a qualified professional, include aptitude and achievement tests with subscales and standard scores, and provide a diagnosis with a summary of clear and specific evidence that supports the diagnosis. The documentation should identify what is the substantial impairment and what are the specific major life areas that are affected. An evidence-based rationale for recommendations and for specific accommodations regarding limitations related to the disability should be included. This documentation should be given to the Executive Director for the Center for Advancement of Learning. Applicants to the PLUS Program are carefully screened and those qualified are extended invitations for on-campus interviews.

All students must be aware that some majors have minimum admission criteria and they may be advised to reconsider their intention of pursuing academic majors leading to vocations which have special licensing and certification requirements, or which require proficiency on certain basic skills tests. As students declare academic majors, they are assigned advisors in the relevant academic department. PLUS Program learning consultants serve as program advisors only, preparing students to talk with their academic advisors by pre-considering a balanced course load and optimal course selection, and by offering guidance for selecting a major.

Non-Degree Seeking Students

Persons who wish to take coursework at Muskingum for purposes other than pursuing a degree may apply for admission as non-degree seeking students. This classification includes the following: students wishing to take college courses while still in high school, certified teachers seeking additional undergraduate credit, persons taking coursework for personal enrichment, students seeking teacher licensure who have either earned a degree or have met all degree requirements at Muskingum, senior citizens, transient students who are seeking a degree from another institution, and students enrolled in continuing education programs or workshops. Credit earned as a special student may later be counted toward a degree; however, students must apply for admission as a regular undergraduate student after a total of 60 credits have been completed, and the final 31 hours toward graduation at Muskingum must be taken as a degree-seeking student. Contact the Admission Office for the appropriate application and admission information.

High school students may take coursework during the fall and spring semesters through the State of Ohio's Post Secondary Educational Options Program. This program is intended to provide opportunities for qualified high school students to experience college level classes as a supplement to their high school program. Students enrolled in this program may choose either Option A, which counts for college credit only (all expenses paid by the student), or Option B, in which coursework is taken for both high school and college credit (fee paid by local school districts).

Readmission

Students who have either withdrawn or been dismissed from the University and desire to re-enter, must apply for re-admission. Decisions on applications for re-admission are made by the Director of Admissions in consultation with the VP for Academic Affairs (VPAA), VP of Student Affairs, Business Office, and Financial Aid. Academic coursework taken since departure from Muskingum will be considered in the re-admission decision. Applications for re-admission are available from the Admission Office.

Leave of Absence

Students who are not on academic probation may take a one or two-semester leave of absence with approval from the VPAA's office. Students do not have to reapply for admission if they return within the prescribed time frame. Students failing to return from a leave of absence are administratively withdrawn and must reapply for admission. A student not in good standing is not eligible for a leave of absence.

International Students

Applications from international students seeking admission to the undergraduate program should be directed to the Coordinator of International Student Enrollment. A computer-based TOEFL (Test of English as a Foreign Language), or the equivalent, score of 213 is generally required for admission. Academically qualified students with scores between 180 and 213 may be eligible for admission conditional upon enrollment in English as a Second Language Classes.

After meeting requirements and providing the documentation described in the international student application, accepted and transient students who prove adequate financial resources to pay for their studies (as required by law) will be issued Form I-20 in order to obtain their (F-1) visas. Students on designated exchange programs who prove adequate resources to pay for their program (as required by law) will be issued a Form DS-2019 in order to apply for a J-1 visa. Muskingum University provides pre-arrival information, an orientation program and assistance with the U.S. Citizenship and Immigration Service (USCIS) requirements for all international students admitted to Muskingum University.

English Support Program

The English Support Program gives academically qualified students who are not native speakers of English, and have achieved a score between 180 and 214 on the computer-based, TOEFL (Test of English as a Foreign Language), or the equivalent, the opportunity to begin their college studies with a combined curriculum. This curriculum consists of one class in English as a Second Language (ESP 082 or ESP 100) and additional regular courses to meet the full-time enrollment requirement. English Support Program students are also eligible to request extended time on all in-class tests and exams. Students pay regular full-time tuition to participate in this program. Regular courses, ESL classes, and all support services are offered at no additional cost.

Tuition and Fees

Muskingum is a non-profit institution which derives a large portion of its operating budget from tuition and fees paid by students. The balance comes from endowment earnings and gifts from alumni, foundations, corporations, and other friends.

The schedule of fees for the upcoming academic year is normally approved by the Board of Trustees at the winter meeting. All current and prospective students are notified of fees in the spring. Student charges are billed prior to the start of each semester.

Undergraduate Tuition and Fees

Muskingum's undergraduate fee structure is set according to the student's status as a Regular Undergraduate or a Special Student. Regular Undergraduates are charged the standard full-time rate for each semester during which they carry at least 12 credit hours and an equivalent per hour rate for less than 12 credit hours. Students in the PLUS Program are assessed a surcharge (\$6,510 for 2009-10) and are considered full-time with at least 10 credit hours per semester. Special students are charged a reduced credit hour rate based on the current tuition, dependent upon their status, and may have a limit on the number of credits per term which they may carry. Special students are not eligible for institutionally funded financial aid.

Be aware that costs listed here are for the 2009-10 academic year only. Charges for future years will likely reflect a modest increase.

PLUS Program Maintenance Fee (Optional reduced services fo	r
continuing students)	
Proficiency Examination Fee per credit hour	
Fee for placement in student teaching	360
Auditing Fee per credit hour, if carrying less than the	
Minimum load for full-time status (see definition)	50
Tuition per credit hour if carrying more than 18 credit hours	610
Tuition per credit hour if carrying less than the	
Minimum load for full-time status (see definition):	
9-11 credit	610
1-8 credit hours	
Directed Study Fee(Please contact the business of	office.)
Applied Music Fees	
Half hour private music lessons (per semester)	255
Full period lessons for music majors in principal area	
(per semester)	295
Full period lessons for non-majors and outside of principal area	ı
(per semester)	430

*The Student Activities Fee supports on-campus programming, special weekend events, and a subscription to the weekly student newspaper, *The Black and Magenta*.

Graduate and Muskingum Adult Program (MAP) Tuition and Fees

Graduate and Muskingum Adult Program (MAP) tuition is charged on a per credit basis. Graduate students enrolled in nine or more credits are considered to be full-time; MAP students are full-time with twelve credits. Additional instructional and technology fees may be required of some courses or programs. To complete course registration, students must pay tuition before the beginning of each term. Information about the University's deferred payment plan is available in the Student Accounts Office or the Office of Student Financial Services.

Tuition for 2009-2010	\$370 per semester hour of credit
Special Fees	
Matriculation Fee	\$20
Application for graduation	\$25

Payments

Arrangements to pay university accounts must be made prior to the start of classes each semester. Students receive statements in advance showing all charges for tuition, room, board and fees. Accounts should be settled by the statement due date to avoid conflicts on opening day.

As an alternative to payment in full, parents or students may participate in the TuitionPay payment plan offered by Sallie Mae. Details concerning this plan accompany student account statements or may be found on the University's web site at www.muskingum.edu/home/business/studentaccounts.html. There are various other methods by which student charges can be paid. For information contact the Student Accounts Office or the Office of Student Financial Services.

Students whose financial obligations to the University have not been settled are subject to late payment processing and/or finance charges, are not permitted to enroll in future coursework, cannot receive an official university transcript or diploma, and may be subject to other restrictions.

Undergraduate Withdrawal and Refund Policy

An undergraduate student who wishes to withdraw from the University can do so until the end of the last day of regular classes in a given semester. A student wishing to withdraw must complete an exit interview with a representative of the VPAA's office. The withdrawal becomes effective and a grade of "W" is assigned for all classes in which the student is enrolled upon completion of the exit interview and the "Student Withdrawal" form. Federal regulations require that the date of withdrawal be the last day of class attendance. With the exception of partial semester courses that are complete as of the date of withdrawal, a grade of "W" is assigned for all classes in which the student is enrolled.

Students who withdraw or take a leave of absence from Muskingum University for any reason after the start of an academic term, or who are dismissed in mid-semester, are entitled to a refund of charges according to the following policy.

Students withdrawing or taking a leave of absence prior to the beginning of an academic term, or during the add/drop period of that term will receive 100% refund of tuition, fees, and room charges (less deposit), and pro-rated board charges. An early withdrawal fee of \$100.00 will be assessed.

Withdrawal/leave of absence after the add/drop period will receive a refund of tuition, fees, and room charges (less deposit) according to the following schedule:

- -Within the first seven days following the add-drop period: 60%
- -Within the next 14 days: 40%
- -Within the next 14 days: 20%
- -Thereafter, no refund of tuition, fees, or room charges (including deposit). Board charges will be refunded based upon the following formula: (Number of weeks remaining in the term divided by the number of weeks in the term, rounded down to the nearest 10%) times (Plan board and charge for the term) equals the amount of the refund.

A board week will be considered earned on each Monday's reconciliation between Campus Services and Student Life.

Financial aid awards to students who withdraw after the beginning of a semester are recalculated on a basis consistent with written University and federal/state policies governing student financial aid in a withdrawal situation. If any portion of a student's charges is to be refunded due to withdrawal, an adjustment must be made to the student's financial aid, since the family contribution must be applied first toward applicable charges.

In cases where financial aid awards must be adjusted, the proper amount of student aid is returned to the appropriate fund, or, in the case of Stafford Loans, to the lender.

The federal recalculation is based on a percent of earned aid for students who withdraw or take a leave of absence prior to completing 60 percent of a

semester. The percent of earned aid is equal to the number of days completed up to the withdrawal date divided by total days in the semester. The federal aid to be returned (unearned aid) is equal to [100% minus percent earned] times the total amount of federal aid disbursed toward institutional charges.

Federal Title IV funds are returned to their respective accounts in the following order: Federal Stafford, Perkins Loans, PLUS Loans, Pell Grants, Academic Competitiveness Grants, National Smart Grants, and Supplemental Educational Opportunity Grants. State grants are refunded in accordance with the guidelines of the specific state agency.

Institutional aid is adjusted at the same rate as the percentage of tuition refund. If the resultant calculation of charges and financial aid indicates a refund is due the student, the refund will be paid by check within a reasonable period of time. If the calculations result in a balance due the University, payment to Muskingum University will be expected in a reasonable period of time.

Financial Aid

The primary purpose of the Muskingum University financial aid program is to provide resources to those students who would be unable to attend without such assistance.

Most financial aid resources are allocated to meet a student's need—the difference between educational costs and the amount of money which the family can reasonably make available for educational purposes.

In order to assist the greatest number of needy students, financial aid resources are allocated equitably in packages consisting of gift aid (grants, scholarships) and self-help (loans, work). No student should expect unusually high breakdowns of either gift aid or self-help, although there is some variation based on academic performance.

Muskingum's financial aid commitment to a student is for the period of time required to complete a degree, dependent upon the student's continued demonstrated need and satisfactory academic progress. A complete description of satisfactory progress requirements is provided for all financial aid recipients.

Students must file for financial aid annually and meet all stated deadlines in order to be given full consideration for financial aid. Returning undergraduate students must file the Free Application for Federal Student Aid (FAFSA) and submit required verification materials preferably between January 1 and April 15 of each year. Entering undergraduate students must file the FAFSA and submit required verification materials, preferably between January 1 and March 15. Submission of these materials serves as an application for federal, state and Muskingum University need-based financial assistance.

Students enrolled in Muskingum's traditional undergraduate programs are eligible to be considered for all forms of financial aid. Students enrolled in the Muskingum Adult Program (MAP) or in a graduate degree program may receive federal or state-funded financial aid if eligible. Because students in the Graduate and MAP Programs are charged tuition under a different fee structure, no institutional financial assistance is available. Information about financial aid available for MAP or graduate study is available from the Office of Student Financial Services.

Financial aid awards are processed by the Office of Student Financial Services in accordance with University policy and the regulations governing the various aid programs. Financial aid policy is determined by the Vice President of Enrollment in consultation with the President and Senior Staff. Academic progress matters are reviewed by the financial aid committee on academic progress. All appeals of financial aid academic progress decisions are filed with the Vice President of Enrollment and considered by the financial aid committee, which consists of the Vice President of Enrollment, the Senior Director of Admission and Student Financial Services, the Director of Student Financial Services Operations, representatives of the Student Life and Academic Affairs divisions, and the Registrar. Final appeal is to the President of the University.

Muskingum University Scholarships and Awards

Academic Scholarships

Muskingum University offers academic scholarships to traditional undergraduate students as part of the overall financial aid program. All applicants for admission are automatically reviewed for academic awards on the basis of their secondary school record (grade-point average in academic courses, class rank, strength of curriculum) and standardized test results. Performance in an on-campus scholarship competition may also be considered. These academic scholarships and award amounts/ranges for 2009-10 are:

- John Glenn Scholarships Full tuition
- Presidential Scholarships \$10,000 to \$16,500 per year
- Faculty Scholarships \$7,000 to \$9,500 per year
- Science Division/Choose Ohio First Scholarships \$500 to \$3,000 per year

The value of a student's academic scholarship can be enhanced through an excellent performance in Muskingum's on-campus scholarship program; these enhancements typically range from \$500 to \$2,000 above the base scholarship level which is determined by the secondary school record. Students must take part in the scholarship competition to be considered for the John Glenn Scholarship.

Science Division/Choose Ohio First Scholarships are directed toward outstanding students pursuing a degree in the natural and physical sciences, and nursing. A separate application and interview are required.

Transfer students are considered for Faculty Scholarships and Special Acknowledgment Awards based on previous college work, and, in some cases, the secondary school record. They may also apply for Science and Performance Scholarships.

Continuing students who were not awarded scholarships as entering students will receive awards of \$7,000 per year if they maintain at least a 3.40 cumulative grade-point average after a minimum of two semesters' work as a full-time student at Muskingum.

Students must maintain a cumulative grade-point average of at least 3.0 in order to insure automatic renewal of all academic scholarships.

Performance Scholarships

Annual awards are available in the performance areas of Art, Digital Media Design, Music, Forensics, Journalism (Broadcast and Print) and Theatre. These awards are determined by the respective departments; Music Scholarships typically range from \$500 to \$2,000 per year, while the others range from \$500 to \$1,500 per year. All are renewable dependent upon maintenance of a specified grade-point average and participation in departmental activities.

Awards of Circumstance and Special Awards

Muskingum offers certain automatic Awards of Circumstance to undergraduate students who meet the defined conditions for the award. Financial need is not a consideration, but the awards are included as part of the financial aid package for students who demonstrate need.

- Special Acknowledgment Awards are made to students who are not awarded academic scholarships but meet specified minimum GPA and ACT/SAT standards. Awards range from \$4,000 to \$6,000 per year for four years. A 2.5 cumulative GPA is required for renewal.
- *Presbyterian Grants* are given to students who are communicant members of the Presbyterian Church, USA at the time of entry to Muskingum. Awards are \$1,000 per year for four years.
- *Alumni Grants* are made to children and grandchildren of Muskingum University alumni. Awards are \$1,000 per year for four years. Students must indicate the alumni relationship on the application for admission.
- Appalachian Regional Grants are awarded to students who reside in a county defined as Appalachian by the Appalachian Regional Commission. Awards are \$500 per year for four years. The county of residence must be indicated on the admission for application.
- *Clergy Grants* are made to dependent children of ordained Presbyterian Church, USA ministers engaged in full-time church work. Grants are \$1,000 per year for four years.
- Sibling Grants are given when two or more dependent students from the same family are enrolled full-time simultaneously at Muskingum. Tuition charges are discounted by 25 percent for all but the first student, with the total discount divided equally among all the family's dependent children in attendance.
- *General Motors/Equal Employment Opportunity Scholarships* are awarded to female students who have a parent employed by General Motors and to minority students. Awards are \$1,000 per year for four years.
- Access Awards of up to \$5,000 per year are made to selected students with exceptional financial need and/or who represent under-served populations.
- Horizon Awards of up to \$1,500 per year are made to selected entering students who, by virtue of their involvement, leadership and achievement in multiple areas, demonstrate the potential to make significant contributions to the University.
- *PLUS Opportunity Awards* of \$2,500 are made to students admitted to the PLUS Program who do not qualify for academic scholarships or *Special Acknowledgement Awards*. There are academic criteria for these awards.

Financial Aid Policies and Student Responsibilities

Muskingum University sets limits on the total amount of Muskingumfunded financial assistance which students may receive. These limits vary in accordance with type of award, amount and timing of awards. The limits are explained in materials that accompany scholarships, need-based awards, non-need-based and the Financial Aid Estimator.

Students must generally be enrolled full-time in order to be considered for Muskingum Scholarships and Grants and Awards of Circumstance.

Students must generally be enrolled at least half-time (six credit hours) in order to be eligible for Pell Grants, Supplemental Educational Opportunity Grants (SEOG), state grants or to obtain Federal Perkins, Stafford and Plus Loans.

Students attending the May Term (summer session) may be eligible for loan assistance if enrolled for at least six credit hours. Grant/scholarship aid is available only if: 1) the May Term is required for four-year program completion (i.e. Public Accounting); 2) the May Term is replacing the previous fall or spring semester, or; 3) if the May Term will replace a future semester (within an eight-term limit) for students who have attained at least junior class standing.

Male students must be registered with the Selective Service in order to be eligible for federal or state aid.

Students receiving financial aid awards in excess of \$100 from external sources must report these awards to the Office of Student Financial Services. Muskingum will then make appropriate adjustments to the aid package if necessary.

Students must maintain satisfactory academic progress in order to retain their financial aid. These specific requirements are stated in the provisions accompanying all financial aid awards.

A federal or state drug conviction can result in suspension from participation in any Title IV program, i.e., disqualify a student for Federal Student Aid funds. Convictions count only for offenses occurring during a period of enrollment for which the student was receiving Title IV aid. The chart below illustrates the period of ineligibility for FSA funds, depending on whether the conviction was for sale or possession and whether the student had previous offenses.

Possession of illegal drugs

First offense: 1 year from date of conviction Second offense: 2 years from date of conviction

Subsequent offenses: Indefinite period

Sale of illegal drugs (A conviction for sale of drugs includes convictions for conspiring to sell drugs.)

First offense: 2 years from date of conviction

Second offense: Indefinite period Subsequent offenses: Indefinite period

Campus Life

Muskingum University prides itself on developing an environment on campus that both challenges and supports students to strive for personal success. The philosophy of the Student Affairs Division at Muskingum University is to provide services and programs that support and enhance the academic mission of the institution. Student growth occurs in the academic program as well as through educationally purposeful experiences outside the classroom. Students are encouraged to explore and engage in those activities and/or experiences that prepare them for productive careers and responsible citizenship.

The total undergraduate college experience includes growth that occurs outside of the classroom, in the residence halls, club and program houses, on the athletic fields, on the stage, and in the studio. The myriad of organizations, activities and events that constantly shape and reshape students' lives is critically important in a student's development.

Within the broad context of the student experience, Muskingum University sees the graduate population as part of the larger University community and encourages graduate students to take advantage of all the services and activities available to them.

First Year Orientation Program

All incoming first-year students and their parents are urged to participate in Muskie Preview during the summer. This program is designed to provide students and their parents with an understanding of the curriculum, housing options, and other services available on campus. In addition, all parents are encouraged to participate in first-year orientation in the fall as they move their student onto campus.

Housing

Because Muskingum is a residential university, all undergraduate students are required to live on campus and participate in the University board plan. Seniors and juniors may apply for off-campus housing through the Student Life Office located in the Quad Center. Exceptions are made for students who commute from their homes within a 30 mile radius, or are married. Additionally, no student 25 years of age or over may reside on campus without prior approval from the Student Life Office. First-year and transfer room assignments are mailed in mid-summer and include the student's residence hall, room number, phone number, and the name and address of the assigned roommate(s).

The Student Life Office will also assist graduate students who are interested in living in or around the New Concord community by providing a list of known community accommodations and advising students on resources to support their search for housing.

Dining Services

All students living in University housing are required to have a Residential Dining Membership (meal plan). Students can choose from four meal plans with a varying number of meals per week and varying amounts of Dining Dollars. Contact the Student Life Office for the current information on available meal plans.

Meal plans can be used in Patton and Thomas Dining Halls. Dining Dollars are dining services currency that deduct with each purchase like a debit card. These can be used at the Winn Café (in the Walter K. Chess Center), Bait Shop (in the Bottom of the Quad Center), and in the Patton and Thomas Dining Halls. Members of the University community may dine in the dining halls by using cash, Muskie Bucks, or Commuter Meal Plans. Muskie Bucks may be purchased in the Business Office and Commuter Meal Plans from the Campus Services Office.

Dining service hours vary for each facility and are posted in the food service locations and on the Dining Services website (www.muskingum.campusdish.com), which is linked to the University website on the Campus Life page. If a student is unable to access meals during the scheduled times due to scheduling conflicts, they may coordinate the pick-up of sack lunches with the Food Service Director. Food may not be taken from the dining halls without prior permission of the Food Service Director. Improper behavior may result in repercussions such as suspension from the dining hall for a period of time (without release from the meal plan or any refund/reimbursement for loss of meals). Call 740-826-8147 with any questions or comments regarding food service on campus.

Health Services

The Wellness Center is open Monday through Friday during the academic year when the University is in session. The Center has regular physician hours and a pharmacy. Students with minor illnesses are treated at the Wellness Center. Those who are seriously ill or who require diagnostic examination or treatment are referred to accredited hospitals. The University urges all undergraduate students to subscribe to the health insurance policy available to them.

Counseling Center

The Office of Counseling Services is available to assist undergraduate and graduate students, faculty, and staff. Often, students need to talk about decisions related to both educational and vocational plans, as well as personal problems. Personal and/or career counseling is available to all students; consultation is available to faculty and staff. All walk-in services are free of charge. The staff also present workshops designed to help educate students and to develop skills necessary for success both in college and in the world of work.

Common personal problems that college students face include adjusting to college, family conflicts, lack of motivation, relationship problems, or feelings of depression. All individual and group sessions are confidential and are intended to help students solve their problems.

Career Services

The Office of Career Services assists undergraduate and graduate students, as well as alumni, in their job searches. Undergraduate students are encouraged to begin preparing their credentials in their first year and update them regularly through and after graduation. Graduate students are advised to begin preparation of the credentials as early in the course of their graduate studies as possible. Among the office's services are career counseling, coordination of on-campus recruitment, maintenance of files on employment and internship opportunities, and dissemination to graduates of information on job openings.

Quad Center

The Quad center on the quadrangle is the place where students, faculty members and visitors are all welcome. The Center provides many of the services, conveniences, and activities required by members of the University community.

Included in the Quad Center's facilities are a bookstore and college shop, the Bait Shop snack bar, mail room, lounge, and Student Affairs Offices, which operate primarily during the standard business day. Some program offices provide extended services, and students are advised to check individual programs for current operating hours. Additionally, the lounge space in the Top of the Center (TOC) and the gathering area in the Bottom of the Center (BOC) remain open until 11:00 p.m., Monday through Friday.

The Walter K. Chess Center

Connected by a pedestrian bridge which unites the two residential areas of the campus, the Walter K. Chess center is the hub of student life. It features spaces for study, student meetings and social gatherings, a fitness area, a library annex, food services, and a lounge with resources related to careers, study abroad, internships, and other programs that enhance the undergraduate experience. State-of-the-art technology links the Center to resources throughout the campus.

Cultural Life

Cultural opportunities are available to students and the entire University community under the sponsorship and direction of a number of organizations and departments and through a spectrum of endowed lectureships.

The University brings outstanding individuals to campus for lectures, colloquia, and other activities designed to enrich and educate the campus community.

A Distinguished Alumni Series features Muskingum alumni who have achieved notable distinction in their careers.

As a part of the Ohio Poetry Circuit, the English department schedules a series of evenings in which noted poets read from their works in programs open to the community.

Musicians, dancers, actors, comedians and other artists perform on campus, often combining performances with lectures, master classes, and informal discussions with students. Scheduled choral and instrumental performances by student ensembles as well as recitals by Muskingum faculty fill out the musical calendar.

Creative work by Muskingum art students is regularly exhibited on campus. The art department also arranges trips for students to galleries and museums in nearby cities.

The Muskingum Players Dramatic Society, whose alumni include the late actress Agnes Moorehead, is dedicated to furthering interest in all forms of theatre and maintaining standards of excellence in theatrical production. Together with the Speech Communication and Theatre Department, the organization presents a season of major productions and student-directed plays.

Muskingum offers a variety of musical organizations, instrumental and vocal. Private lessons are available for academic credit in a number of applied areas. Students also may audition for the Southeastern Ohio Symphony Orchestra (SEOSO), which is jointly sponsored by the University and a board of trustees from neighboring communities.

Academic, Professional and Honor Societies

Muskingum's academic clubs and societies promote interest and foster excellence in many disciplines. Local clubs which meet regularly with special programs involve students in the fields of chemistry, elementary education, music education, physical education, physics and engineering, and psychology. Local honor societies also include Phi Theta Beta (education) and Theta Gamma Epsilon (geology and geography).

In April, 2009, a chapter of The Honor Society of Phi Kappa Phi, the nation's oldest and largest all-discipline honor society, was installed at Muskingum. Phi Kappa Phi membership recognizes and rewards academic excellence and provides access to exclusive resources and benefits designed to serve the academic and professional needs of its members.

In addition to Phi Kappa Phi, the following national honorary and professional fraternities have chapters at Muskingum: Alpha Kappa Delta (sociology), Beta Beta Beta (biology), Kappa Pi (art), Kappa Delta Pi (education), Kappa Mu Epsilon (mathematics), Lambda Sigma Society (sophomore honorary), National Collegiate Players (dramatics), Omicron Delta Epsilon (economics), Omicron Delta Kappa (leadership), Phi Alpha Theta (history), Phi Beta Lambda (business), Phi Kappa Delta (forensics), Phi Sigma Iota (languages), Psi Chi (psychology), Sigma Beta Delta (business management and administration), Sigma Delta Psi (physical education), Sigma Tau Delta (English), Sigma Xi (scientific research), The Society for Collegiate Journalists.

Radio and Television

The Philip and Betsey Caldwell Hall houses the electronic media facilities of WMCO and Muskingum University Television (MCTV).

WMCO, 90.7 FM "The Orbit," an award-winning, student-operated non-commercial radio station, has facilities rivaling many commercial operations. On the air year-round, 24 hours a day, WMCO programs music, news, sports and educational material to the regional community. Students use the state-of-the-art digital audio workstations to produce local programs.

Muskingum University Television (MCTV) produces the programming aired on channel 6 on the New Concord cable system. MCTV provides experience for students interested in television production. Facilities include a fully

equipped multi-camera studio and control room, digital field production kits, and five AVID nonlinear editing workstations.

WMCO and MCTV are operated as part of the academic program of the Speech Communication and Theatre Department, but membership in the organizations is open to any student with a minimum 2.0 GPA, regardless of major. Responsibility for station policies and practices lies with the Director of Broadcasting.

Publications

There are three student publications, which are the responsibility of a board composed of students and faculty members under the direction of the Student Senate. The publications are *The Black and Magenta*, a weekly newspaper; *The Muscoljuan*, the university yearbook; and *The First Circle*, a literary magazine.

Religious Programs

At Muskingum a multi-dimensional, unified campus ministry operated through the Office of the University Chaplain provides opportunities for students to worship, and celebrate their faith. Thursday morning common hour is reserved for voluntary community worship in Brown Chapel. Occasional special services are scheduled in the Chapel. The New Concord churches welcome students, and a weekly on-campus Roman Catholic Mass draws a substantial congregation. Jewish students are encouraged in their faith and are invited to Sabbath and Holy Day worship with the congregation of Beth Abraham in nearby Zanesville.

Every student is given opportunities not only for academic study of the Christian faith and of other world religions, but also for participation in extracurricular programs and groups provided to stimulate intelligent reflection upon, and develop mature understanding of, the Christian faith.

The campus ministry challenges the spiritual and intellectual resources of the university community to address contemporary social, political and ethical issues from a faith perspective. In addition to educational events and programs which address these issues, study and action groups are organized around specific concerns. An extensive volunteer service program allows students to participate in a variety of projects in the immediate and surrounding communities. Pastoral counseling is provided by the University Chaplain.

Greek Life (Fraternities, Sororities, and Social Clubs)

Greek Life plays an important role in the lives of many Muskingum undergraduate students. About 25 percent of Muskingum students are involved in the Greek community. Through these organizations, students have the opportunity to develop skills which will be useful in later life. Living and working together, learning about others, experiencing diversity, managing a small business, becoming socially aware, getting involved in the community, and learning to lead are some of the opportunities which await new members. Organizations have their own living environments which include residence hall floors with private lounges, on-campus houses leased and operated by the group, and off-campus houses managed by members and alumni advisors.

Invitations for membership in a Greek organization are extended by the individual club on a selection basis. To be considered for membership a student must have the annually established GPA and have completed one full semester at Muskingum (membership recruitment and requirements are further addressed in the *Student Handbook*).

Volunteer Services

Volunteer Services is housed within the Student Affairs Division. Muskingum seeks to provide opportunities for students to gain practical experiences as they give back to the communities which, in part, support their education. Students are given hands-on experiences in many different settings, depending upon the interests of the student. Students can volunteer as part of an organization or class, as a member of a service club, or individually.

Educational advancement is also available through Alternative Spring Break programs, Ohio Campus Compact, the Governor's Community Service Councils, and Americorps.

Athletics

Muskingum University has been a member of the Ohio Athletic Conference (OAC) for more than half a century. As a member of the OAC, Muskingum University fields 19 varsity teams, comprised of ten men's and nine women's teams. Men's undergraduate intercollegiate varsity teams participate in baseball, basketball, cross country, football, golf, soccer, tennis, indoor track, outdoor track, and wrestling. The women's undergraduate athletic program offers intercollegiate competition in basketball, cross country, golf, soccer, softball, tennis, indoor track, outdoor track and volleyball. The other nine institutions in the conference, which is the third oldest in the United States, are Baldwin-Wallace College, Capital University, Heidelberg College, Wilmington College, John Carroll University, Marietta College, Mount Union College, Ohio Northern University and Otterbein College. Muskingum University is also a member of the National Collegiate Athletic Association's (NCAA) Division III.

The Recreation Center and John Glenn Gym have two racquetball courts, an athletic weight room, two performance gyms, and a cardio-fitness center. Undergraduate students, faculty and staff are encouraged to participate in personal recreational activities or in the organized intramural program.

Leadership Development

Leadership opportunities abound at Muskingum University. As one of the developmental offerings most sought by students and employers, both academic programs and coursework, as well as co-curricular or out-of-the-classroom experiences focused on leadership are provided for the benefit of students. From internships, featured speakers, and training seminars to roles in leadership posts within organizations or paraprofessional roles with the institution, the University provides opportunities for students to be leaders and provides educational experiences to better understand the dynamics of leadership and leadership skills.

Campus Government

Students play a major role in the various organizations involved in campus government including:

Student Senate, housed in the Quad Center, includes undergraduate members elected from classes, various student organizations, and residence areas. A representative board reflecting campus opinion, the Senate and its committees perform the duties of student government.

Center Board is composed of undergraduate student executive officers, committee chairs, and a staff advisor. Center Board's major function is to plan and coordinate the social programs for the campus and provide a broad range of activities to match the diverse interests of students.

Community Standards Board is composed of students, staff and faculty who are charged with the objective of examining behaviors and institutional rules in specific cases in ways that carefully protect a student's rights, both procedural and substantive, while also emphasizing the student's obligation to abide by the community norms that the rules reflect. The board has jurisdiction in all disciplinary cases presented to the Board by the Student Life Office. The Peer Judicial Board, which has jurisdiction in first-level conduct hearings, is composed of students and advised by a staff advisor. Both bodies make recommendations to the Dean of Students or his/her designee who renders final outcomes. The <code>Student Handbook</code> provides greater detail on the behavior education system and serves as the controlling document on this programmatic area for the University.

Greek Council for the undergraduate men's and women's social clubs, fraternities, and sororities promotes cooperation among the clubs and between the clubs and the university community.

Residence Hall Association represents all undergraduate resident students. The council plans social events, discusses and solves problems in the residence halls, clarifies existing policies and procedures and, where needed, recommends new policies and procedures.

Community Standards

Muskingum University is an intentional undergraduate and graduate community—one that is purposely set somewhat apart from the world around it. Its focus is on education, as well as seeking increased development and integration of the whole person in the intellectual, spiritual, social, and physical aspects of life. As an educational community, it respects and encourages the development of individual virtues such as integrity, rationality, compassion, self-discipline, and personal responsibility.

The University also places special emphasis upon certain community ideals such as tolerance, civility, and respect for the person and conscience of others. As a university related to the Presbyterian Church (PCUSA), it holds additional values such as honesty, the value and worth of each individual, the seriousness

and inevitability of human shortcomings, and the hope for redemptive behavior. Such a community must depend upon the respect for certain principles and patterns of behavior by its members in order to function effectively. Students who join this community are making an implicit commitment to live by its standards, whatever the difference of their backgrounds has been.

A Code of Academic Responsibility provides the definitions, operational structure and policies for the academic programs. A Code of Student Conduct provides the definitions, operational structure, and policies for life together on campus. Adherence to these Codes shall be considered an understood prerequisite for acceptance to and continuance in the University. As an institution within the State of Ohio, Muskingum University is committed to encouraging compliance with all state and local laws.

Muskingum University unequivocally condemns immoderate drinking. The University considers the decision to drink within moderation, or not to drink beverage alcohol at all, to be a value judgment on the part of each individual. Personal possession of limited amounts of beverage alcohol (beer and/or wine) is permitted in designated areas by residents of legal age. The consumption of beverage alcohol (beer and/or wine) is also permitted at registered social events by students of legal age. All social events must be approved through the Dean of Students or his/her designee.

Muskingum University is unalterably opposed to the possession and/or use of non-prescribed drugs, narcotics, or hallucinogens by all members of the University community.

Muskingum modifies the individual's privilege of smoking by considerations of safety, avoidance of litter, and respect for the rights of nonsmokers; smoking is therefore prohibited in all campus facilities (including all residential spaces).

Students bringing motor vehicles on the campus must register them with Campus Police and abide by the Parking Regulations if they are to retain this privilege.

The continuation of students in the university depends not only on their ability to maintain satisfactory academic standards, but also on their ability to support Muskingum's ideals and standards. Students are held responsible for their behavior at all times, both on and off campus. If a student is dismissed from the institution, the University has no obligation to return any fees or tuition. Furthermore, by enrolling at this private institution, a student and his agents or guardians, agree to release and indemnify the University, its personnel, officers, agents, or directors from any liability. In all cases the student is guaranteed the safeguard of essential procedural fairness. Specific policies and procedures are addressed in the annually-produced *Student Handbook* and updated through the University's official communication system.

Academic Information

Graduate academic policies and procedures that differ from information in this section may be found in the *Graduate Catalog* and are available from the Office of Graduate and Continuing Studies.

Student Responsibility

The student is responsible for meeting all appropriate course, major, and graduation requirements as stated in this catalog. Although a student and an advisor are partners, the student needs to be knowledgeable about academic requirements and take the initiative in planning his or her own program, in setting goals, and in monitoring progress toward completing such goals.

Catalog of Entry

Traditional students who complete graduation requirements in four years are under the catalog in effect at the time of first enrollment. Students may elect to meet the graduation requirements of a later catalog.

Students who do not meet graduation requirements within seven calendar years of first enrollment must meet the requirements of the catalog in effect at the time of graduation or of a catalog published no more than four years earlier than the time of graduation.

Faculty Advisor

New students are assigned to faculty advisors through the First-Year Program. These advisors provide counsel and assistance in social acclimation and arranging course schedules. Students may declare a major field of study with the Registrar any time after Thanksgiving of their first year, but are required to do so no later than the middle of the second semester of their sophomore year. They are then reassigned to faculty advisors in their major department.

Registration

New students entering in the fall are scheduled for classes during the summer; new students entering in the spring are scheduled for classes beginning late December. Continuing students schedule their classes for the next semester in the latter part of the current semester. Changes (add/drop) may be made to schedules at any time until the end of the fifth day of class.

Course Withdrawals

Students may withdraw from full semester courses through the 50th day of the semester, and from partial semester offerings until the course is three-fourths completed. Withdrawals are not permitted after the specified time. The process for course withdrawal is initiated in the Registrar's office.

Academic Credit and Class Standing

Academic credit is expressed in terms of semester hours. A student's classification is determined by the number of credit hours completed toward graduation. The minimum number for each classification is: sophomore–28, junior–60, and senior–92.

Full-Time Status

The minimum semester load for a full-time student is 12 semester hours (PLUS student minimum status is 10 hours); the maximum load is 20 hours. Students with less than a 3.0 cumulative GPA must petition the VPAA to register for more than 17 hours. Full-time status is determined at the end of the add/drop period, after which time course withdrawals have no effect on full-time status with regard to charges for tuition and fees. Full-time status is required, however, for participation in a sport. Other areas of extra-curricular and co-curricular activities may also be impacted.

Grading Policy

Grades are assigned on a scale ranging from A, excellent, to F, failing. The grades' equivalent quality points are: A, 4.00; A-, 3.67; B+, 3.33; B, 3.00; B-, 2.67; C+, 2.33; C, 2.00; C-, 1.67; D+, 1.33; D, 1.00; D-, 0.67; and F, 0.00. Other grades are WIP, for work in progress; I, incomplete; S, satisfactory (C or above); U, unsatisfactory (C- or below); W, withdrawn; L, audit; and NR, not reported.

The grade of work in progress (WIP) is given in a course where work has been recognized as requiring research, study or participation beyond the normal limits of a semester. It may be used for departmental senior studies (400-level courses), for courses involving outside observation hours or for students in the PLUS learning disabilities program.

An Incomplete (I) indicates that unusual personal or technical circumstances, including illness and family emergencies, have prevented the student from completing course requirements.

Except in extraordinary circumstances failure to complete the required work by the last day of the immediately subsequent semester reduces the WIP or I to an F. No student is awarded a degree with a record which includes a WIP or an I.

Academic Dishonesty, Plagiarism

Plagiarism, cheating, and other forms of academic dishonesty are serious offenses at Muskingum University, and the faculty member has the prerogative of invoking the severest penalty for an initial offense. Each department is responsible for developing its definition of plagiarism, but in general, plagiarism is the verbal, written, graphic, or three-dimensional presentation of borrowed material without citing its source. Students must cite the source for quotations, paraphrases, or borrowed ideas, models, information, or organization of material. Students who are uncertain about the need for citation should consult the faculty member for whom the work is being prepared. For a first offense, the minimum penalty for plagiarism and/or cheating is a failing grade on the assignment, paper, or examination; the maximum penalty in this instance is a failing grade in the course. In either case, the faculty member should submit a written report of the offense to the Office of the Vice President for Academic Affairs; the incident will be recorded in the student's file. The student guilty a second time may be suspended or expelled from the University. Plagiarized work is filed in the office of the Vice President for Academic Affairs. A grade given for academic dishonesty shall supersede any withdrawal. See additional information under "Order of Appeal."

Grade Point Average

Grade point averages (GPA) are figured by multiplying a course's semester credit hours by the grade's equivalent quality points. The semester grade point average is determined by dividing the semester's total quality points by the semester's graded credit hours attempted. The cumulative grade point average is calculated in the same manner, using total quality points and total graded credit hours attempted. All courses for which a student has registered at Muskingum are included in the GPA computation except those for which I, WIP, S, U, W, L, or NR are recorded.

Students who have been readmitted to Muskingum after seven calendar years from their previous enrollment may choose not to carry the cumulative GPA from the prior enrollment.

Course Repeat Policy

A student may repeat a course once if the original grade is a C- or lower and provided it is repeated at the next offering, or provided that no more than one intervening course has been taken in the discipline offering the course. A course may be repeated only one time. When a course is repeated, both grades remain on the record but only the most recent grade is used in computing the grade point average unless the most recent grade is I, WIP, or W. While the grade for a repeated course erases the GPA calculation that may have been the basis for decisions about academic standing such as probation, dismissal, or Dean's List, those decisions are not affected by the recalculation.

Order of Appeal

Faculty members are responsible for outlining grading policies to students at the beginning of each course. If students believe they have received a wrong grade on an examination or for a course, the initial step is to discuss the grade directly with the faculty member teaching the course. If that step does not result in a satisfactory explanation or resolution of the perceived problem, the student may bring the matter to the attention of the department chair. The next person in the line of appeal, should the student continue to contest the grade and wish to pursue an appeal, is the division coordinator. Should the person to whom the student would bring the appeal in this process also be the faculty member in whose course the grade is being questioned, that person has no jurisdiction over the appeal. In the latter case, the Vice President for Academic Affairs will call on an appropriate faculty member from the department or related department in the division to review the circumstances and make a recommendation to the Vice President for Academic Affairs, who will be the final arbitrator in any such appeal.

The same process detailed above applies to disputes over alleged plagiarism or other cases of academic dishonesty. The maximum penalty for the first instance of academic dishonesty is failure of the course; for a second, expulsion from the University.

Students judged guilty of violating library regulations may appeal to the Director of the Library, to the campus Judicial Board, and to the President.

A student who believes that a faculty member has acted in an unprofessional manner can bring a charge of unprofessional conduct to the faculty's Professional Relations Committee. The committee, which functions to

protect the full rights of all parties concerned, will try to determine whether the charges should be sustained. The hearing is private; both parties have the opportunity to be heard in their own cause, and the faculty member personally selects advisors. A full stenographic record of the hearing is taken and made available to both parties. Either party may request the testimony of other instructors or students when it can be shown that these persons have access to facts that bear on the case. At the conclusion of the hearing, the committee renders its judgments and recommendations in writing to the parties concerned.

Transcripts

Official copies of Muskingum University transcripts bearing the University seal and the Registrar's signature are sent directly to schools or organizations upon the written request of the students or alumni. Upon written request, individuals may also receive official copies of the transcript which are stamped "Issued to Student". The fee for an official transcript is \$5.00 per copy. Checks must be payable to Muskingum University before the transcript is sent.

Currently enrolled students can obtain unofficial copies of their Muskingum University transcripts through the University's on-line academic record system.

Grades are recorded on transcripts at the end of each term. Students may request that transcripts be held until grades for the courses in which they are enrolled are recorded. Transcripts and diplomas are not released for students with overdue accounts.

Faxing Transcripts

The Registrar's Office will accept requests from students to fax copies of transcripts. The cost of this service will be \$10.00 per faxed copy, payable by check, major credit card, or cash (cash will only be accepted in person at the Business Office). Requests to fax transcripts will not be accepted within two weeks of the beginning or end of a semester. Transcripts will be faxed within two business day of the request, pending Business Office approval.

Pass/Fail Option

Under the Pass/Fail Option, a junior or senior may take two courses per year for credit outside the major or minor and the University's Liberal Arts Essentials program without having the grade count toward the cumulative grade point average. The student must have a GPA of 2.00 or higher and permission from the Registrar, the faculty advisor, and the course instructor. Only S (pass) or U (fail) grades are given. The decision to take a course on the Pass/Fail Option must be declared by the end of the add/drop period and cannot be changed after the add/drop period. The limit of courses taken under the Pass/Fail Option does not include courses designated exclusively S/U.

Auditing

Auditing is subject to space availability. For full-time students there is no charge to audit but permission must be received from the Registrar, the faculty advisor, and the course instructor. The decision to audit a class must

be on file with the Registrar by the end of the drop/add period and cannot be changed. Non-attendance results in a grade of W. Those over 62 years of age may audit a course under the same regulations. Part-time students are charged a fee to audit.

Transferring Courses

Credit toward a degree from Muskingum University may be granted for coursework taken at other regionally accredited institutions. On the basis of official transcripts and course descriptions, equivalency, elective credit, or no credit is determined in consultation with chairs of the various departments. A minimum grade of "C" is required for courses taken elsewhere to be accepted. Transfer credit is not accepted for courses for which previous credit has already been granted. Transfer credit may not be used to replace grades earned at Muskingum University. Only credit hours transfer, not the corresponding grade point average for transfer work, except to determine Latin honors (for which the grade point average may be lowered but not raised).

Attendance

The academic program of Muskingum University operates on the assumption that learning is advanced by regular attendance at class and laboratory.

It is the responsibility of the student to arrange to make up, at the convenience of the instructor, class assignments or previously scheduled quizzes and/or exams missed due to absence. Timely (at least one week in advance) notice to professors when absence will be unavoidable is expected. No instructor may deny a student the opportunity to make up coursework missed because of bona fide medical, personal or family emergency, or when timely notice is received, because of previously scheduled participation in institutionally sanctioned activities.

Individual faculty members determine their own class attendance policy in accordance with the preceding paragraph. At the beginning of each semester, the faculty member is responsible for informing students of his/her attendance policy or expectations and of the consequences or penalties for excessive non-sanctioned absences. The faculty member must define "excessive."

Academic Standards Policy

Academic Standing

To be in good academic standing, a student must maintain a minimum semester and cumulative GPA of 2.0. The term "semester" refers to the most recently completed semester; the term "cumulative" refers to all work completed at Muskingum University.

Academic Probation

A student whose semester and/or cumulative GPA falls below 2.0 will be placed on a cademic probation.

The notation "Academic Probation" will be marked on the student's transcript for the semester(s) in which the GPA is below 2.0 except in the following situation: the semester GPA is at least 1.5 and it is the first time that the student's GPA has fallen below 2.0 and (if established) the cumulative GPA is at least 2.0.

To regain good academic standing, a full-time student must achieve a 2.0 semester and cumulative GPA with completion of a minimum of 12 credit hours (PLUS student minimum is 10 credit hours); a part-time student or a student attending Muskingum University May Term must achieve the same with completion of at least six credit hours.

The Learning Strategies and Resources Program (LSR) provides support through tutoring, learning skills courses, and other special services for students who need assistance to succeed academically. A student who is not in good academic standing may be required to participate in the LSR program.

The probationary student is required to consult regularly with his/her advisors and course instructors.

Notification

The student will receive notice of his/her academic probation status and its accompanying requirements and restrictions from the Vice President for Academic Affairs (VPAA). A copy of the notice will be sent to the parents or guardians of dependent students and to the student's academic advisor(s).

Restrictions

A student who is on academic probation may not enroll for more than 17 hours. On the recommendation of the student's academic advisor, adjustments may be made in the student's course load.

Academic Dismissal

A student on probation whose semester GPA remains below 2.0 at the conclusion of the next semester and whose cumulative GPA is also below 2.0 is subject to dismissal. A student who does not earn a GPA of at least 1.5 in any semester is subject to dismissal.

A student may appeal the dismissal to the Academic Standards Committee. This committee, consisting of the Vice President for Academic Affairs and the Vice President of Student Affairs (or their designated representatives) and at least three faculty members, meets in early January for fall dismissals and in May for spring dismissals. Among the criteria considered by the Academic Standards Committee is the reasonable expectation that students who appeal will be able to graduate. In order to demonstrate satisfactory progress toward graduation, seniors are expected to maintain a cumulative GPA of at least 1.9, juniors at least 1.8, sophomores at least 1.5, and first-year students at least a 1.2 cumulative GPA by the end of their second semester.

A student who is dismissed will be denied enrollment in classes, participation in campus activities and University residency.

Readmission

Application for readmission of a student dismissed for academic reasons will be considered only after a minimum of one semester following dismissal. Readmission is usually contingent upon successful completion of one to two semesters of college-level coursework at another institution.

Academic Honors & Dean's List

At the end of each semester the University publishes an honor roll, known as the Dean's List, containing the names of undergraduate degree-seeking students who earned a semester GPA of 3.60 or above on a minimum load of 12 completed semester hours (PLUS student minimum is 10 hours) of A-F graded coursework.

Each spring, degree-seeking students who have distinguished themselves academically are honored at the Scholarship Recognition Program. Awards are made to the students in the highest five percent of each class provided they meet the following criteria: have a cumulative grade point average of 3.6 or better on all work including post secondary, with the exception of approved off-campus study as a Muskingum student (such as Washington Semester and study abroad); have completed at least 12 semester hours of A-F graded coursework in the preceding semester (PLUS student minimum is 10 hours); are enrolled full-time (including approved off-campus study) in the spring semester.

First, Second, Third, and Fourth year awards are determined in the following manner:

First Year Award (bronze recognition) is given to students who are ranked in the top five percent (5%) of their class for the first time.

Second Year Award (silver recognition) is given to students who are ranked in the top five percent (5%) of their class for the second time.

Third Year Award (gold recognition) is given to students who are ranked in the top five percent (5%) of their class for the third time.

Fourth Year Award (student name is inscribed on a plaque located outside the President's Office) is given to students who are ranked in the top five percent (5%) of their class for the fourth time.

Three classes of honors are conferred at graduation: *cum laude*, to those with cumulative minimum grade point averages of 3.4; *magna cum laude*, minimum 3.6; and *summa cum laude*, minimum 3.8. All post-secondary work must meet these standards, with the exception of approved off-campus study as a Muskingum student (such as Washington Semester and study abroad). A Latin Honors GPA cannot be higher than the GPA earned at Muskingum. With the exception of approved off-campus study as a Muskingum student, grades earned elsewhere will lower but not raise the Latin Honors GPA, even if the courses for which the grades were earned were not applied by transfer to the Muskingum record. To be eligible for honors designation, students must have completed all degree requirements. Students completing second baccalaureate degrees are also governed by this policy.

The student with the highest cumulative GPA who qualifies for summa cum laude recognition will be designated valedictorian. The student with the second highest GPA who qualifies for *summa cum laude* recognition will be designated salutatorian.

Commencement Policy

Seniors planning to graduate must apply no later than 8 weeks prior to the date of commencement. Students who fail to apply by this deadline may incur additional fees and/or may not be permitted to participate in commencement exercises. The "Application to Graduate" forms are available in the Office of the Registrar.

Students with more than 4 hours of coursework left to complete at the time of Commencement, must petition the VPAA to participate in commencement ceremonies. Petitions must be submitted to the VPAA at least 3 weeks prior to commencement and will be considered on a case by case basis.

Degree Requirements

Three degrees are offered. Majors in Nursing receive the Bachelor of Science in Nursing (BSN). Students majoring in biology, chemistry, computer science, conservation science, earth science, engineering science, environmental science, geology, mathematics, molecular biology, neuroscience, physics, or psychology may choose to receive either the Bachelor of Science (BS) or the Bachelor of Arts (BA) degree. All other majors are awarded the Bachelor of Arts. All undergraduate degrees require fulfillment of the following:

- 1. A minimum of 124 credit hours. A maximum of 48 credit hours in any one discipline may be included in this total. In the case of courses of study leading to teacher licensure, the ACS-certified chemistry major, the Engineering Science major, and the music major, the student may apply up to the minimum credit hours required for the major toward the 124 for graduation. A maximum of three physical education activities courses, three language tables, and ten music ensembles may apply within the 124 hours.
- 2. A minimum cumulative grade point average (GPA) of 2.0 for all work taken at Muskingum University; a minimum GPA of 2.0 for all courses in the major(s) and, where the option is taken, a minimum GPA of 2.0 for the minor(s).
- 3. A minimum of 40 credit hours earned in 300- and 400-level courses.
- 4. Satisfactory completion of at least one departmental or interdisciplinary major. All work within the specified discipline is counted as part of the major or minor. In the case of students pursuing multiple majors or minors in the same department, the GPA for each is calculated separately; an overall GPA of 2.0 in the academic discipline must be maintained. (Students pursuing multiple majors may write separate senior seminars, one in each of the disciplines involved, or with approval of each department chair, write one interdisciplinary seminar, credit for which is given in the department of their choice. Although the interdisciplinary seminar counts toward the credit hour requirements of only one major, the project may fulfill the senior studies requirement of all departments involved.)
- 5. At least 12 credit hours of the major completed in the junior and senior years at Muskingum.
- The last 31 credit semester hours toward graduation must be earned as a degree-seeking student at Muskingum University or in approved offcampus study.
- 7. Transfer students must successfully complete a minimum of 48 credit hours at Muskingum University (includes approved off-campus study programs).

 Note: Only work at the 2.0 level or higher is accepted for transfer from
 - other colleges and universities.
- 8. Satisfactory completion of the Liberal Arts Essentials.

Minors

Unless otherwise specified by the academic department, a minor consists of at least 15 credit hours within a specific discipline and with a minimum GPA of 2.0, providing a minimum of three credit hours is at the 300- or 400-level. Unless required by a particular major, minors are not required for graduation.

Program of Liberal Arts Essentials (LAE)

There are four primary goals of the LAE, as determined by the Muskingum University faculty:

- Muskingum students will develop skills in perception, analysis, and expression.
- Muskingum students will explore connections among formal learning, citizenship, and service to our communities.
- Muskingum students will acquire multiple and integrative approaches to life-long learning.
- Muskingum students will develop capacities for physical, emotional, and spiritual wellness.

Core Requirements (15-22 hours), including 6-8 writing unit hours

The Liberal Arts Essentials that form the general education curriculum at Muskingum University ensure the breadth inherent in a liberal arts education. This broad educational base includes skills, knowledge, and dispositions. A liberal arts education requires that we understand the foundations of knowledge and inquiry about nature, culture, self, and society; that we master core skills of perception, analysis, and expression; that we cultivate a respect for the truth; that we recognize the importance and the diversity of historical and cultural contexts; and that we explore connections among formal learning, citizenship, and service to our communities.

The core provides the foundation on which a meaningful liberal arts and sciences education is built. The core consists of courses and components that emphasize fundamental communication and critical thinking skills, equip students with essential tools and knowledge for advanced learning, and contribute to students' intellectual, spiritual, social, and physical well being.

A. Writing

- 1. English 121. Composition (Exempted with SAT V-660/ACT E-30)
- 2. Two writing unit courses, one at the 300-or 400- level (selected from among the disciplines and designated in the Undergraduate Course Schedule Booklet and course listings on the web by the symbol # preceding the titles)
- B. Speaking

Speech Communication 200. Fundamentals of Speech Communication

C Mathematics

A mathematics course of at least 3 hours, excluding Math 090: Developmental Mathematics (exempted with SAT M-670/ACT M-32)

- D. Understanding the Arts and Humanities of Western Culture IDIS 150. Arts and Humanities in Western Culture
- E. Achieving Wellness
 - 1. Physical Education 101. Concepts of Wellness
 - 2. Two courses selected from offerings listed under Physical Education 102 through 140. Physical Education Service Courses. (Each service course may be taken only once for credit; no more than three count toward the 124 hour graduation requirement.)

Area Requirements (35-37 hours). Course requirements must be met in the following areas. Individual courses may not be counted in more than one LAE area.

A. Understanding Religion and Ethics

The two categories below are designed to help students explore religious ways of understanding life, articulate their own belief systems, and reflect on the means by which they evaluate and respond to ethical dilemmas, both personal and social. One course from each is required.

1. Religious Understanding:

Philosophy 342: Religions and Philosophies of Asia

Religion 150: Biblical Theology Religion 153: World Religions Religion 251: The World of Islam

Religion 252: The Judeo-Christian Tradition Religion 260: Introduction to Christian Theology

Religion 261: Women and the Bible Religion 262: Global Christianity

Religion 304: Jesus in the New Testament

Religion 320: History of Christianity: Ancient and Medieval Religion 326: History of Christianity: Reformation and Modern

Religion 329: African-American Religion Religion 353: Religion and Gender Religion 395: World Mythology

2. Moral Inquiry:

Criminal Justice 341: Ethical Issues in Criminal Justice

History 315: The Holocaust

Philosophy 203: Introduction to Ethics Philosophy 305: Biomedical Ethics Philosophy 331: Environmental Ethics

Philosophy 343: Social and Political Philosophy (cf. Political Science 343 and Sociology 335: Social

and Political Philosophy)

Philosophy 361: Topics in Moral Philosophy

Physical Education 355: Sports Ethics

Political Science 342: Ethical Issues in Politics

Religion 253: Biblical Ethics

Religion 354: Christian Ethics in the U.S. Religion 393: Global Issues and Values Religion 451: The Christian Life and Ethics

Sociology 369: Peacemaking

B. Scientific Understanding

To inculcate an appreciation and understanding of the physical world, the scientific method, and the forces and elements inherent in the natural order, all of which affect the quality of our lives and the environment. Students take two of the following courses including laboratories selected from two separate departments.

Biology 105. Issues in Biology and 107: Laboratory

Biology 111. Organismal Biology I and 107: Laboratory

Biology 112: Organismal Biology II and 107: Laboratory

Biology 121: Anatomy and Physiology I Biology 122: Anatomy and Physiology II

Chemistry 105: Issues in Chemical Sciences

Chemistry 111: General Chemistry

Geology 101: Introduction to Geology

Geology 110: Environmental Geology

Physics & Engineering 101: Conceptual Physics I

Physics & Engineering 121: Classical Physics I

Physics & Engineering 150: Introduction to Astronomy

C. Cultural Understanding

The following categories of courses and experiences extend and intensify cultural understanding and international awareness, promoting a baseline of knowledge and appreciation of the richness and diversity of culture.

No more than two courses in one department may count toward requirements under Cultural Understanding.

1. The Global Society

a. Communicating in the World

Satisfactory completion of one of the following options provides the direct, experiential knowledge of culture through emphasis on a modern non-native language or the direct, experiential knowledge of information technology needed to communicate and function in a global society.

A semester course at the appropriate level in a foreign language, (which is not counted in another LAE area), participation in a Muskingum University approved international program, a three semester hour computer science course, or English Support Program 100. Advanced English as a Second Language Writing.

b. Social Foundations

Selection of one of the following introductory courses helps build a foundation of understanding about the social and behavioral dimensions of human existence.

Criminal Justice 101: Introduction to Criminal Justice

Economics 215: Principles of Microeconomics

Political Science 211: Introduction to State and Local Politics

Political Science 131: Introduction to World Politics

Psychology 101: Introduction to Psychology

Sociology 101: Sociological Perspective

c. International Perspectives

In order to expand understanding and toleration of other societies, develop familiarity with patterns of social behavior in a comparative context, and lay the basis for responsible world citizenship, one course from the following category is required.

Anthropology 201: Cultural Anthropology

Business 412: International Business Economics 361: International Trade

Geography 111: World Regional Geography

History 346: Southeast Asian History

History 348: The Western Impact on Modern Japan

History 351: Latin American History since 1810

History 356: History of Modern Africa

Modern Language 200: Cross-Cultural Communication

Music 310: Excursions in World Music

Philosophy 342: Religions and Philosophies of Asia

Political Science 251: International Relations Religion 393: Global Issues and Values

Sociology 350: Social Change in an International Perspective A semester course in a foreign language selected from 111, 112,

211 or 212 (which is not counted in another LAE area)

2. The Western Heritage

One course selected from each of the following categories (a, b, and c) provides a background in the rise of Western civilization and an appreciation for its continuing traditions, achievements, and contributions.

a. History 111: The Emergence of the Modern World I

History 112: The Emergence of the Modern World II

History 318: Nineteenth Century European History

History 320: Twentieth Century European History

History 321: Early Modern European History

Philosophy 325: Western Philosophy: The Ancients

Philosophy 327: Western Philosophy: The Early Moderns

Philosophy 343: Social and Political Philosophy (cf. Political

Science 343, Sociology 335)

Philosophy 350: Western Philosophy: The Late Moderns Political Science 331: Politics of Western Europe

b. English 123: Masterpieces of Literature

English 231: The Tradition of British Literature I

English 232: The Tradition of British Literature II

English 394: Classical Mythology

French 123: Masterpieces of French Literature in Translation

German 123: Masterpieces of German Literature in Translation Spanish 123: Masterpieces of Hispanic Literature in Translation

c. Art 112: Drawing I

Art 121: Ceramics I Art 131: Sculpture I

Art 141: Photography

Art 151: Introduction to Art

Art 170: Graphic Design I

Art 251: Art History I

Art 351: Art History II Art 451: Art History III

French 350: Survey of French Cinema

German 350: Modern German Cinema

Spanish 350: Hispanic Cinema

Interdisciplinary 115: Introduction to Integrated Arts

Music 101; Fundamentals of Music Theory

Music 121: Introduction to Music

Music: two consecutive years of the same applied music

lessons or ensembles

Theatre 151: Introduction to Theatre

Theatre 275: Basic Acting Theatre 350: History of Film

Theatre 351: World Theatre and Drama

3. The American Experience

By choosing one of the following courses, students become acquainted with aspects of the history of the American nation, its institutions, customs, diversity of peoples and resources, and the major challenges facing contemporary American society.

English 233: The Tradition of American Literature

English 341: Nineteenth Century American Fiction

English 343: Twentieth Century American Fiction

History 211: United States History to 1877

History 212: United States History since 1877

History 374: Ohio History

History 376: American Diplomatic History

Philosophy 353: Contemporary American Philosophy

Political Science 111: American Political System

Political Science 316: Urban Politics

Religion 368: Religion in the United States (cf History 368) Sociology 216: Social Problems in Contemporary America

Sociology 301: American Society: Class and Culture

Sociology 320: Racial and Cultural Minorities

Sequence for Meeting the Liberal Arts Essentials (LAE)

During their first year, students should take *Composition*, *Arts and Humanities in Western Culture*, *Concepts of Wellness*, at least one science course, and a mathematics course. In the second year, another science course and additional courses to meet core and area requirements should be taken. In addition to *Composition*, students must complete two writing unit courses. These courses, at least one of which is at the 300- or 400-level, should be taken after *Composition*. Students enroll in courses to satisfy other area requirements throughout attendance according to the level of the particular course.

Second Baccalaureate Degree

A second baccalaureate degree, different from the first degree, will be granted at a later date than the first with successful petition to the Vice President for Academic Affairs. Criteria include (1) an appropriate plan of study and approval of the proposed major department; (2) courses which do not duplicate those constituting the major(s) of the first degree; (3) beyond the first degree, a minimum of 30-semester hours in residence, including half the hours for the major and a capstone experience.

Special Programs

The Center for Regional Planning and Development offers students the opportunity to work with faculty to gain experience solving real-world problems in regional development. Areas of focus include administration, business, the environment and education. The Center provides southeastern Ohio communities with low-cost solutions, and serves as a laboratory for students to apply to real-world problems what they have learned in the classroom.

Senior Studies provides a capstone experience for seniors in their major field of study. Through a seminar (an individual study or an advanced field experience), students learn to use bibliographic and research techniques and sources applicable to their chosen discipline; integrate earlier course work into a coherent pattern; engage in an extensive writing experience; gain experience in oral communication; develop independence, self-reliance and creativity; and explore a topic in depth.

Directed Study permits students, under special circumstances, to enroll in an existing course at an alternative time to the class schedule. This requires a course contract with a cooperating faculty member and approval by the Vice President for Academic Affairs. The contract specifies required meeting times, readings, writing assignments, studio, or laboratory work. Only students who have earned 60 credit hours are eligible to take courses by directed study. Students may register for Directed Study courses through the fourth week of the semester. Additional fees may apply.

Interdisciplinary Majors draw on offerings in various departments. Students may elect an already established interdisciplinary major in American Studies, Conservation Science, Criminal Justice, Child and Family Studies, Digital Media Design, Environmental Science, Humanities, International Affairs, International Business, Journalism, Molecular Biology, Neuroscience, or Public Affairs, or may construct a self-designed interdisciplinary major in an area not currently available in the curriculum.

Self-designed Majors consult appropriate academic and departmental advisors in developing a rationale and course of action for the major. The major encompasses work from at least three departments and consists of no fewer than 40 nor more than 60 hours, with a limit of 30 hours in any one department. The primary consideration for approval of self-designed interdisciplinary majors is that the proposal demonstrates respect for the depth

that the major traditionally provides in the liberal arts curriculum and includes an appropriate seminar experience. The proposal requires curriculum committee approval and advanced consultation with and endorsement by the advising faculty and department chairs from the participating disciplines. Students considering a self-designed major should consult their academic advisor and a representative of the office of the Vice President for Academic Affairs.

Internships and Career Field Experiences encourage students to apply and extend their learning in real-world contexts. In recent years, Muskingum interns have earned academic credit while learning through experience in law and legislators' offices, radio and television stations, hospitals, mental health institutions, businesses, and field research sites. These experiences are sponsored by individual academic departments. The Office of Career Services also assists students seeking internships that complement their personal learning goals. The goals, expectations and specific learning requirements are carefully specified in advance to assure good rapport among University staff, the students, and the various cooperating agencies.

Students may initiate internship proposals, but all internships must meet the same minimum standards and be approved by the department chair or program coordinator, supervising professor, and VPAA's Office prior to the beginning of the experience or within two weeks of the beginning of the experience. To be eligible for an Internship, a student must have achieved junior standing (60 hours) prior to the internship and must have at least a 2.5 cumulative GPA. A minimum of 40 work hours combined with readings and written projects or papers is required for each semester hour of credit. Internships are graded S/U. See the Interdisciplinary course listing section for details on credit. A maximum of 16 hours of internship, including fieldwork in student teaching, may be applied toward graduation and a maximum of 6 hours may be earned in any one semester or summer session. To be eligible for a Career Field Experience, a student must have earned a minimum of 28 credit hours prior to the beginning of the experience and must have at least a 2.0 cumulative GPA. A minimum of 40 work hours combined with readings and written projects or papers is required for each semester hour of credit, with a maximum of 2 credits allowed per experience.

Pre-professional Education is offered through intense programs which prepare students for schools of medicine, dentistry, nursing, engineering, veterinary medicine, medical technology, law, physical therapy, and the Christian ministry.

May Term, which is the Muskingum University summer undergraduate academic program, offers a variety of regular classes scheduled in a condensed four-week period which begins the week after commencement. These include Liberal Arts Essentials, major courses, electives, and special courses.

Cooperative Programs

Medical Laboratory Technology is available through an agreement with Southwest General Hospital in Middleburg Heights, Ohio, for a one year medical technology program. A limited number of qualified students are selected to complete the majority of their Liberal Arts Essentials and major requirements in three years and then spend a fourth calendar year in-hospital for their technical preparation. During the technical year, practical experience is augmented with instruction in the following disciplines: blood bank, chemistry, hematology, microbiology, serology/immunology, urinalysis, management, education, phlebotomy, safety, quality control, quality assurance, and total quality management. The 3-1 program, including 22 hours of credit at Southwest General, culminates in a Bachelor of Science degree from Muskingum and a medical laboratory technology certificate from Southwest General Hospital.

Binary Engineering Program affords students the opportunity to apply for admission to a binary program with Case Western Reserve University. At the conclusion of the junior year accepted students enter Case Western, essentially as third-year engineering students. At the completion of the engineering degree requirements, normally two years later, they are awarded either a B.A. or a B.S. degree from Muskingum and a B.S. degree from Case Western Reserve University. For further information, please consult the Physics and Engineering Science department's web site at http://www.muskingum.edu/dept/physicseng.

Affiliate Programs

Muskingum University offers students the opportunity to earn academic credit from other institutions through its affiliate programs. These programs are typically focused toward a particular academic or internship experience for which the off campus institution offers a specialization that cannot be obtained on campus. Following is a description of the programs for which Muskingum has affiliate agreements. Students participating in these programs are generally considered to be enrolled at Muskingum University.

On receipt of an official transcript from an affiliate program, credit will be awarded for all pre-approved coursework in which a passing grade has been assigned. Letter grades, but no equivalent quality points, will be assigned to transfer work. With the exception of calculations for Latin Honors and Dean's List, neither term nor cumulative grade point average will be affected by transfer work from affiliate programs.

Washington Semester is available through a cooperative arrangement with American University. Selected students may spend one semester in Washington, D.C. studying the American governmental system in action. Assignments may include the State Department, lobbying groups, or Capitol Hill. The study is carried out through a seminar, an individual research project, and regular courses at American University.

The Art Institutes International permits students majoring in art at Muskingum to spend their junior year studying at The Art Institute of Pittsburgh or at one of the other 17 locations of the Art Institutes. Commercial art programs are available in the areas of visual communications, interior design, fashion merchandising, industrial design technology, and photography/multimedia.

United Nations Semester is a program under which Muskingum students may apply for one semester of study at Drew University, Madison, New Jersey during which time they take two courses involving on-site study at the United Nations headquarters in New York. Other courses up to a 15 hour maximum are elected from the Drew curriculum.

Study Abroad/International Study provides the opportunity for sophomores, juniors and seniors to study for one or two semesters at a foreign university through the Muskingum or the East Central Colleges Consortium Student Exchange Programs. Formal student-exchange agreements exist between Muskingum University, the ECC, and institutions in Asia, Canada, Europe, South America, Mexico, Puerto Rico, and the USA. In most cases there is no extra fee for participation in these exchange programs. Students interested in study abroad should consult the Coordinator of Study Abroad Programs for further information. To make certain that their programs of study satisfy Muskingum's requirements, students must have their programs approved by the faculty advisor, and the Coordinator of Study Abroad Programs. Study abroad opportunities outside of those already established at Muskingum are also possible, as are short-term study abroad programs.

Speech Pathology and Audiology emphasis is available through an agreement with the Kent State University. A bachelor's degree from Muskingum with this emphasis provides students the opportunity to enter the graduate program in Speech Pathology or Audiology at Kent State University.

Academic Programs

Muskingum offers degrees at both the undergraduate and the graduate level.

Undergraduate Program

Muskingum's undergraduate program includes disciplinary and interdisciplinary majors offered through four academic divisions (Arts and Humanities, Education, Science, and Social Science) and the eighteen departments described in the following pages. Many majors offer a choice of tracks or emphases, and most majors have a corresponding minor. For more information, consult the departmental listings in this catalog or the departmental web page. For specific information regarding Ohio teaching licensure, which is available in many of these areas, consult the Department of Education. Currently the following majors are offered:

Accounting American Studies

Art Biology Business

Chemistry Child and Family Studies

Computer Science Conservation Science

Christian Education Criminal Justice Digital Media Design

Economics Education

> Early Childhood Education Middle Childhood Education

Health Education Physical Education Special Education Engineering Science

English

Environmental Science

French

Geology

German History

Humanities

International Affairs International Business

Journalism Mathematics Molecular Biology

Music

Music Education Neuroscience Nursing Philosophy Physics

Physics Education

Physics and Engineering Science

Political Science Psychology Public Affairs Religion Sociology Spanish

Speech Communication

Theatre

A minor only is available in:

Gender Studies

Teaching English as a Second Language

Graduate Programs

Dean, Associate Professor FAGAN; Assistant Professor KAUFMANN; Senior Associate Dean, Assistant Professor SANFORD; Assistant Dean, Associate Professor WILKINS

The Office of Graduate and Continuing Studies provides academic administration of all graduate, post-baccalaureate, and continuing studies programs. Each graduate degree is led by a faculty director who is a member of the department and the division responsible for academic oversight of the program.

Muskingum University provides three graduate professional degrees and a variety of post baccalaureate licensure, certification, and professional development options. The Master of Arts in Education and the Master of Arts in Teaching are graduate teacher education programs approved by the Ohio Board of Regents, North Central Association of Colleges and Schools, and the Ohio Department of Education. Separate publications, available in the Office of Graduate and Continuing Studies, contain more detailed descriptions of the programs, including course listings and admissions procedures.

Master of Arts in Education

The Muskingum University Teacher Education Unit is accredited by the National Council for Accreditation of Teacher Education (NCATE) for both initial and advanced programs. The Master of Arts in Education (MAE) is designed for licensed or certified education professionals. While earning the MAE, students may complete licensure in Educational Leadership, Intervention Specialist: Mild/Moderate, Intervention Specialist: Moderate/Intensive, Intervention Specialist: Talented and Gifted, Early Childhood, and Early Childhood Intervention Specialist; or endorsements in Talented and Gifted, Reading, Early Childhood Development, and Early Education of the Handicapped. Non-licensure concentrations are also available in Adult Education, Art, Music, and Teacher Leader.

Master of Arts in Teaching

The Muskingum University Teacher Education Unit is accredited by the National Council for Accreditation of Teacher Education (NCATE) for both initial and advanced programs. The Master of Arts in Teaching (MAT) provides an opportunity for persons who have earned a baccalaureate degree in disciplines other than teacher education to earn a master's degree while preparing for provisional licensure as entry-year teachers. Licensure programs are available in Early Childhood, Middle Childhood, Adolescent Young Adult (Math, Language Arts, Social Studies, Chemistry, and Life Sciences), Intervention Specialist: Mild/Moderate, and Intervention Specialist: Moderate/Intensive.

Master of Information Strategy, Systems, and Technology

The Master's of Information Strategy, Systems, and Technology (MISST) degree at Muskingum University is a project-based program designed for working business professionals. MISST develops competencies that are necessary to work successfully at the interface of business strategies and information technology. The Program's blended learning format provides a learning environment combining the benefits of a highly personal experience and the convenience of e-learning. Graduates of the MISST program will be prepared to lead strategic change in their organizations. (Visit our website at www.muskingum.edu/~misst for additional information.)

Summer Seminars

Begun in 1995 as the Educating Children Summer Training Institute (ECSTI), Summer Seminars provide one-week, three-credit graduate seminars in June and July. Subject matter experts throughout the United States and other countries are brought together to lead seminars. Credits earned through Summer Seminars may be applied toward a degree program, or may be used to meet Ohio licensure renewal requirements.

Undergraduate Academic Offerings

Descriptions of the courses in the departmental curricula follow. While the majority of the offerings are available each year, some are available on an alternate year basis or when student interest is sufficient to make their scheduling feasible.

Listed with each departmental heading is the roster of the department's faculty. Some course descriptions contain a comma, semi-colon, or dash in the course number. A comma between course numbers indicates a multiple semester course in which each semester is a prerequisite to the next, and credit may be received for each course. A semi-colon between course numbers indicates a multiple semester course in which each semester is **not** a prerequisite to the next, and credit may be received for each course. A dash between course numbers indicates a multiple semester course in which each semester is a prerequisite to the next, and all courses in the sequence must be satisfactorily completed in order to receive any credit. Courses numbered below 100-level are remedial and do not count in minimal hours toward graduation. Ordinarily the 100-level courses are for first-year students, the 200-level for sophomores, the 300-level for juniors and the 400-level for seniors. Students may enroll in a course one level above or below their classification. To enroll in a course which is more than one level above or below their class, students must obtain permission from their advisor.

The number in parentheses immediately following the course name indicates the semester hours of credit.

Accounting

See Economics, Accounting and Business

American Studies

Advisor, Professor WILLIAMSON

The interdisciplinary major in American studies provides students with the opportunity to study American civilization from the points of view of different disciplines.

Major (39-40 hours)

Requirements: A minimum 12 hours (four courses) from at least two of the following five disciplines and an American Studies senior seminar project. Economics 215, 216

English 233

History 211, 212 Political Science 111 Sociology 216

An interdisciplinary or a constituent discipline senior studies project *Electives:* 27 hours from a minimum of five of the following departments or disciplines, including those courses previously listed under requirements.

Anthropology 365 Business 321, 341, 360

Economics 375, 435

English 341, 343, 351, 385 (385 can count no more than twice, and only when it focuses on a different American author.)

History 372, 373, 375, 376, 382, 383, 385

Philosophy 353

Political Science 211, one from 311-319, one from 321-329

Religion 322, 330

Sociology 301, 320, 345

Anthropology

See Sociology and Anthropology

Art

Professor Y. SUN; Associate Professors McCOLLUM (Chair)

The art department creates visually literate individuals through quality courses in the programs of art history, studio, and art education. The department seeks to foster a liberal arts environment in which the study of art leads to critical thinking, effective and mature expression, ethical sensitivity, and spiritual growth. Courses provide both appreciation of and participation in a wide variety of art experiences. The department also presents educational events, gallery programs, and a permanent collection to the University and its surrounding community.

Proficiency in the knowledge and skills acquired in the studio disciplines, coupled with a thorough study of art history, can prepare students for graduate fine arts studies, gallery management, and museum curatorship. The art education program leads to careers in teaching as well as graduate studies. Art, in combination with psychology, prepares students for graduate work in art therapy; in combination with business, it enhances careers in marketing and similar fields. Students interested in communication art (commercial or advertising art) may combine studies at Muskingum with course work at the Art Institute of Pittsburgh and its branch campuses in Atlanta, Dallas, Denver, Fort Lauderdale, Philadelphia, Houston, and Seattle as part of special programs linking the institutions.

Students interested in art should contact the department chair at least by the first semester of the sophomore year to ensure fulfillment of all requirements for the degree, pre-professional options, the Art Institutes program, and teacher licensure in multi-age visual arts.

For additional information please consult the art department's web site at http://www.muskingum.edu/~art/

Major (37 hours)

Requirements: 112, 120, 121, 131, 151, 170, 212, 241, 490

Two courses from 251, 351, 451

One course from 321, 331, 370, 412 or 441

One art course elective

Portfolio for acceptance into major program

One to three pieces may be retained as part of the student section of the Permanent Art Collection

Completion of Junior Year Review prior to the Senior Capstone Review Capstone exhibition

Minor (15 hours)

Requirements: 112, 121, 151, 170

Electives: 3 additional hours of art electives

Teacher licensure — multi-age visual arts, ages three through twelfth grade. Contact the education department for specific course requirements.

Course Offerings

- **112. Drawing I** (3) introduces the fundamentals of two dimensional composition through experiences designed to increase visual perception and provide technical skill. Students are introduced to visual concepts such as positive and negative space, linear perspective, and proportion. Discussion and critiques introduce aesthetic theories.
- **120.** Three Dimensional Design (3) is a foundation course which is intended to be completed in the freshman year (or initial year of study) for the Art major. The course introduces the fundamentals of three dimensional compositions for the visual arts. The course is designed to increase visual perception and provide technical skills with fundamental three dimensional problems. A portion of the course provides experience with the use of tools and materials required in fabrication of three dimensional mediums of wood, paper, wire, clay, metals, and new technologies, while a portion of the course focuses on design using traditional and computer related tools.
- **121.** Ceramics I (3) introduces methods and aesthetics from ancient and contemporary practices used worldwide. Fundamental 3-D design problems are explored using hand building and wheel throwing techniques. Basic clay and glaze formulation theory along with various firing procedures are included.
- **131.** Sculpture I (3) introduces 3-D design elements, criticism, media, technique, and conceptual concerns as employed in contemporary and historical sculpture produced worldwide. Inspiration, conception, and working philosophies are stressed.
- **141. Photography** (3) introduces the fundamentals of black and white photography. The course covers the functions of the camera, various lenses, lighting, the developing of film and prints, matting and displaying prints, and develops an aesthetic awareness in the art of seeing photographically. Students supply a 35mm camera, film, and printing paper.

- **151. Introduction to Art** (3) expands the student's awareness and understanding of the visual arts through art theory and critical analysis by emphasizing present, historical, and multi-cultural perspectives.
- 170. Graphic Design I (3) introduces elements of two-dimensional, visual communication design. Highlights include an investigation of basic concepts and principles of graphic design, and an introduction to utilization of computer software programs in representation, creation, and study of designs. Students design and produce basic-level design projects in a computer-based environment.
- **212. Drawing** II (3) is a further development of the fundamentals presented in Drawing I, including a variety of media; subject matter including landscape, figure drawing, portrait, and still life; and approaches to personal expression in drawing. Prerequisite: 112
- **221.** Ceramics II (3) is a thorough investigation of wheel throwing techniques, including a range of glazes and firings. Wheel aesthetics are contrasted with those of hand building. Prerequisite: 121
- **231. Sculpture II** (3) is a more thorough study of sculptural techniques. Effective communication of conceptual concerns is stressed. Prerequisite: 131
- **241. Painting I** (3) deals with the fundamentals of painting, including color theory, color mixing, preparation of canvas, and other grounds and care of materials. Aesthetic theories and criteria of excellence are introduced. Prerequisite: 112 or permission of the instructor
- **251. Art History I** (3) introduces Western art from prehistory through Roman classicism and visual art from non-western cultures. Understanding of historical and cultural context is stressed.
- **270. Graphic Design II** (3) includes computer-based graphic design areas, and teaches page design and layout of various types. Typography, image, space, color, and form will be integrated as the term progresses. Emphasis is placed on students' application of design concepts to communication purpose, on solutions for specific client areas, and on development of visual designs that effectively communicate the desired message. Prerequisite: 170.
- **312. Drawing III** (3) builds upon Drawing I and Drawing II with a focus on producing more personal and expressive drawing. Advanced composition, communication, content, and idea development are emphasized. Prerequisite: 212
- **321.** Ceramics III (3) is an advanced investigation of one or more aspects of the field. Emphasis is on competent and informed individual initiative and creation. Prerequisite: 221
- **331.** Sculpture III (3) is an advanced investigation of one or more aspects of the field with emphasis on competent and informed individual initiative and creation. Prerequisite: 231

- **341. Painting II** (3) focuses upon personal expression and the decisions made in creative endeavors. Students explore individual solutions to painting problems and develop their own aesthetic and style. Prerequisite: 241
- **351. Art History** II (3) investigates Western art from early medieval times through the end of the 1700s. Stylistic influences are stressed.
- 370. Graphic Design III (3) focuses on advanced graphic design concepts and ideas, as well as in-depth graphic design features on the computer. Production technology is discussed. Advanced graphic communication and typography concepts are studied. Graphic design in a variety of programs in marketing, communications, advertising, public relations, and journalism is highlighted. Students work towards building finished portfolio contents. Prerequisites: 170 and 212, or permission of the instructor.
- **380. Middle Level Art Education** (2) studies art education methods, philosophies, and practices. Materials ordinarily used in elementary and secondary schools are used in laboratory projects. More specialized instruction is provided for those seeking certification to conduct a complete art program.
- **381. Adolescent Art Education** (3) provides the student intending to teach secondary art with information and methods necessary for teaching the secondary school art student.
- **412. Life Drawing** (3) consists of drawing from the nude, draped and clothed human figure, with emphasis on study of structure, proportion and anatomy for artists. Various media and approaches to drawing the figure are used. Prerequisite: 212 or permission of the instructor
- **441. Painting III** (3) provides the advanced student with the opportunity to develop control and mastery of the techniques and methods acquired in 241 and 341. A personal aesthetic and style are emphasized. Prerequisite: 341
- **451. Art History III** (3) is an investigation of why and how Western art changes from the early 1800s to the present. Conceptual and multi-cultural influences are stressed.
- 455. Student Teaching in Primary/Middle Level Visual Arts (5) involves students as practice teachers in a six week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on students' performance completed in a primary or middle school setting, grades K-3 or grades 4-8.
- **457. Student Teaching in Secondary Visual Arts** (5) involves students as practice teachers in a six week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on students' performance completed in a secondary school setting, grades 9-12.

490. Senior Seminar (1) provides the senior art major with a gallery exhibit experience. The student carries out all aspects of designing, publicizing, and hanging an exhibit of visual work done during college.

491; 492; 493; 494. Creative Problems (1-4) allows the advanced student to create independent work under faculty guidance with permission of the department chair.

Biology

Distinguished Professor INGOLD (Chair); Associate Professors BERGSTROM, DOOLEY, OSUNSANYA; Assistant Professors ALLEN, SANTAS; Instructor AMSTUTZ-SZALAY

The goals of the biology department include helping students to gain an understanding of the universal principles governing the phenomenon of life. Students will know what a modern biologist is, understand how biologists think, see how discoveries are made, and apply the scientific process to their everyday lives. Students will engage in a broad-based knowledge of the principles of cellular, molecular, genetic, physiological, morphological, ecological, and evolutionary studies. In doing so, they will develop sensitivity to the role of critical and creative thinking as it operates in the scientific process; in addition, they will begin to integrate a sense of ethical thinking and behavior in their professional and personal lives. Finally, liberal arts students will engage in their development of scientific literacy and develop an understanding of the scientific process as a way of thinking that can be applied not only to science but to their everyday lives.

The biology department faculty advises students destined for professional or graduate schools requiring a biology major. These include pre-graduate, pre-medical, pre-dental, pre-optometry, pre-veterinarian, pre-physical therapy students, and future biology teachers. Liberal arts students who are majoring in other disciplines and yet have an interest in biology are also advised by the faculty. Interdisciplinary studies in the neuroscience, environmental science, conservation science, and molecular biology, each of which has a significant biological component, are also offered. Students work with faculty on individual research projects and on faculty research. Life-long faculty scholarship is important as it serves as a model for the student's future life-long learning.

The biology department occupies 11,500 square feet in the Boyd Science Center. The space includes five teaching laboratories, a greenhouse, three controlled environment rooms, four faculty research labs, three student study offices, a photographic darkroom, animal rooms, a seminar room, and a classroom. Although the biology major provides for a formal "capstone" research experience, students at all levels are heavily engaged in research activities with department faculty.

Students interested in a biology major should contact the department chair at the earliest opportunity to ensure fulfillment of all degree and pre-professional requirements for completing a major in biology and preparing for a related career.

For additional information please consult the biology department's web site at http://www.muskingum.edu/~biology/

Major (46 hours)

Requirements: 111, 112, 107 (twice), 226, 306, 308, 336, 420 (taken in the Junior or Senior year)

Chemistry 111, 112

Electives: At most, one course selected from Environmental Science 121, 421; Molecular Biology 211, 411; Conservation Science 231, 431; or Neuroscience 201. Remaining requirements may come from biology courses not counted above, as well as from Conservation Science 331 and Neuroscience 386. LAE issues courses (the 105 group) count as two credit hours toward the major.

Minor (19 hours)

Requirements: 111, 112, 107 (twice), 226 and a minimum of eight additional credit hours from courses at the 200 level or higher, Only biology courses will count for the minor.

Teacher licensure — life sciences or integrated science, grades 7-12 Contact the education department for specific course requirements.

Course Offerings

105. Issues in Biology (3) intended for non-science majors, although two credit hours from any one of the following classes may be applied toward the biology major. In addition, more than one course may be taken for graduation credit, but only one counts for the LAE requirement. Co-requisite: 107.

- **a.** Environmental Science examines the basic principles of evolution, ecology, and population biology. These principles lay the groundwork for a detailed look at world biodiversity, conservation, sustainable resource use, and anthropogenic-based water and air pollution.
- **b.** Conservation Science deals with the threats facing the Earth's biological diversity such as habitat destruction, overexploitation, and exotic species introductions. In addition, practical approaches to maintaining and managing biological diversity are examined and the critical linkages between ecology, economics, and politics are emphasized. Possible weekend field trips involved.
- c. Concepts in Evolution provide an introduction to fundamental principles underpinning contemporary evolutionary biology. In addition to lecture and text readings, weekly discussion meetings provide a forum for evaluating the extent to which evolutionary of contemporary social issues.
- **d. Genetic Frontiers and Biotechnology** surveys the scientific principles, applications and social implications of genetic engineering.
- **e. Human Biology** surveys basic biological chemistry, scientific method, tissues and organ systems and applies this to demonstrate how biology influences our quality of life.

- f. Human Diseases surveys microbes and disease with special emphasis on infectious diseases caused by bacteria and viruses. The characteristics of microbes, interaction between microbes and host, immunity to disease, and treatment are also emphasized.
- **107. Biology Laboratory** (1) is a series of lab topics which explore biological processes through observation and experimentation. (See course schedule for a description of the topics offered.)
- **111. Organismal Biology** I (3) studies the principles of biological evolution; examines the defining characteristics of all of the major animal phyla and introduces the major principles of ecology. Co-requisite: 107.
- **112. Organismal Biology II** (3) studies the structure and function of various organ systems in vertebrates. Examples from invertebrates are frequently used to emphasize diversity, adaptability, and evolution. Co-requisite: 107.
- **121. Anatomy & Physiology I** (4) focuses on the anatomy and physiology of the human body. This is the first part of a two-course offering in human anatomy and physiology which covers how the body is organized, supported, and regulated.
- **122. Anatomy & Physiology II** (4) focuses on the anatomy and physiology of the human body. This is the second part of a two course offering in human anatomy and physiology and primarily focuses on the maintenance and continuity of the human body.
- **213.** Functional Histology (4) studies the structure and function of animal tissues and the methods used in preparing them for microscopic examination. Lecture and laboratory experiences are involved. Prerequisites: 112, 107
- **221. Vascular Plant Systematics** (4) deals with the classification, evolution, and natural history of selected families of vascular plants with emphasis on the regional flora. Students are required to develop their own plant collection. Prerequisite: 111, 107
- **226. Introduction to Cell and Molecular Biology** (3) focuses on cell structure and function, membrane structure and function, cellular energy, photosynthesis, glycolysis, cellular respiration, DNA, gene activity, the regulation of gene activity, recombinant DNA, and biotechnology. Prerequisite: 112, 107
- **232. Vertebrate Natural History** (4) deals with the identification, classification, and natural history of vertebrate animals of the local region. Lecture, laboratory, field experiences, and possible Saturday field trips are involved. Prerequisite: 111, 107

- **304.** Evolution (4) provides an in-depth exposure to contemporary evolutionary biology through lectures and selected readings from the primary literature. The course not only emphasizes information germane to the theory itself, but also important questions currently facing researchers in the field. Course requirements include three exams and a semester-long writing project. Prerequisite: 111, 112, 107 (twice)
- **306.** Genetics (4) surveys the fundamental principles of heredity and variation. Lecture and laboratory experiences are involved. Prerequisite: BIOL 112 and 107 or 121 and 122
- **308.** General Ecology (4) examines the interrelationships between organisms and the environments in which they live. Lecture, laboratory, extensive field work, and possible Saturday field trips are involved. Prerequisite: 111, 107
- **312. Microbiology** (4) The overall objective of this course is to study the relationship between microorganisms and our lives. The course explores the nature of microorganisms with special emphasis placed on bacteria of importance to medicine and industry. The course also explores body defense mechanisms. Lecture and laboratory experiences are involved. Prerequisite: BIOL 112 and 107 or 121 and 122, CHEM 111 and 112 or 115.
- **321. Advanced Botany** (4) is an evolutionary study of the evolution, morphology, and life-history traits of the major plant and algae groups. Lab emphasizes anatomy. Prerequisite: 111, 107
- **336. Cellular Physiology** (4) studies the cellular processes involved in membranes, bioenergetics, control systems, neurochemistry, muscles, and glands. Laboratory emphasizes basic techniques used in cell biology and biochemistry. Prerequisite: 112, 226, 107 and Chemistry 111, 112
- **346. Pathophysiology** (3) provides an understanding of how physiological changes manifest themselves under altered health states. Upon completion of the course students will possess an understanding of how altered health states change normal physiological conditions. Additionally, students will understand basic methods of detection and putative treatment strategies.
- **358. Aquatic Ecology** (4) analyzes the interrelationships of biological, physical, chemical, and geological factors that influence freshwater and marine environments. Lecture, laboratory experiences, and possible Saturday field trips are involved. Prerequisite: 111, 112, 107 (twice), 226 and Chemistry 111, 112
- 368. Advanced Neuroscience (4) emphasizes basic neurophysiology, neurochemistry, synaptic function, coordinated organismal functions, and common neurological disorders. Laboratory emphasizes neuroanatomy. Prerequisite: 112, 226, 107
- **373.** Comparative Vertebrate Anatomy (4) studies the origin, relationships, and comparative morphology of a representative series of chordates. Lecture and laboratory experiences are involved. Prerequisite: 112, 107

- 375. Molecular Biology (4) studies the biochemical and molecular interactions within living cells with special emphasis placed on protein structure, gene structure and expression, gene regulation, and genetic engineering. Lecture and laboratory experiences are involved. Prerequisite: 112, 107, 226 and Chemistry 111, 112
- **380.** Comparative Vertebrate Embryology (4) studies the developmental processes of a representative series of chordates. Lecture and laboratory experiences are involved. Prerequisite: 112, 107
- **420. Senior Seminar** (3) involves a discussion of a series of scientific papers covering a biological topic. In addition, students search the biological literature related to the topic and prepare an oral presentation as well as a written paper. Prerequisite: biology major and junior standing
- **421-422. Biological Research** (2-2) involves laboratory and/or field research on a biological problem.

Business

See Economics, Accounting and Business

Chemistry

Professor RATAICZAK; Associate Professors PERERA, SZALAY (Chair), ZOOK-GERDAU Assistant Professor SCHURTER

The chemistry department's laboratory intensive instructional program has been certified by the American Chemical Society (ACS) Committee on Professional Training since 1966. The program facilitates an understanding of the materials around us and the changes they undergo. This chemical knowledge is fundamental for an understanding of everyday experience and environmental/economic concerns. Graduating majors are very successful in gaining admission to graduate and professional schools. Many have found a chemistry major to be excellent preparation for medical or law school, careers in private and public research laboratories, secondary teaching, and technical sales. The department supports pre-nursing, pre-engineering, and medical technology programs. In addition to the basic chemistry major, the department offers the ACS-certified chemistry major. Forensic Chemistry and Pre-Pharmacy tracks are also available within the chemistry major for students interested in Forensic Science and Pharmacy. (See below for additional information on the different options within the chemistry major.)

Research is important and all seniors conduct independent laboratory research. Students are encouraged to participate in research as early as possible. Typically no more than two or three students work on senior research for any one professor. This small student-faculty ratio makes possible early research endeavors and modern research facilities make possible excellent, timely research. Joint research projects have involved chemistry students with the departments of biology, geology, physics and engineering, psychology, mathematics and computer science, and economics, accounting and business. Students have presented papers on their research at ACS sponsored meetings, both national and regional and have published their research results in

reputable journals. The Muskingum University Student Affiliate Chapter of the American Chemical Society sponsors a number of events each year, including films, tutoring, book sales, field trips, and chemical demonstrations. Workstudy opportunities are also offered. Contact the department chair to expedite fulfillment of requirements.

Additional information on all tracks within the chemistry major is available on our web-site: http://www.muskingum.edu/~chemistry/

Major (36-37 hours in chemistry including)

Requirements: Chemistry 111, 112, 213, 214, 315, 335, 355, 454, 455

Physics and Engineering 121, 122

Mathematics 190, 200

Chemistry electives: at least one course from 316, 418, 419, 425, 441, 445

Recommended electives: Mathematics 140; Computer Science 111;

a modern language

Pre-Health Track (Pre-med, Pre-vet, Pre-dent) 36-37 hours in chemistry including

Requirements: Chemistry 111,112, 213,214,315,335,355,418 or 419, 454 & 455

Mathematics 190, 200

Physics and Engineering 121,122

Biology 107, 112, 226

Additional Pre-dent requirements: Biology 121, 122, Math 140

Additional Pre-vet requirements: Biology 312, Math 140

Recommended electives: Biology 213, 306, 312, 375; Chemistry 418, 419; Mathematics, 140; Psychology 101

Pre-Pharmacy Track (37 hours in chemistry including)

Requirements: Chemistry 111, 112, 213, 214, 315, 335, 355, 418, 454, 455

Math 190, 200, 140 (recommended)

Physics and Engineering 121, 122

Biology 112, 107 (Cell Biology, Human Biology, or Genetics), 121 or 122, 312

Forensic Chemistry Track (45 hours in chemistry including)

Requirements: Chemistry 111, 112, 213, 214, 240, 315, 335, 419, 425, 440, 441,

454, 455, or internship in forensic science.

Math 190, 200

Physics and Engineering 121, 122

Criminal Justice 101, 331

Recommended electives: Additional criminal justice courses, biology courses, and math statistics

American Chemical Society certification (43-44 hours in chemistry including)

Requirements: Chemistry 111, 112, 213, 214, 315, 316, 335, 355, 418 or 419,

425, 454, 455

Mathematics 190, 200, 230, 320

Physics and Engineering 121, 122

Recommended electives: Chemistry 441, 418 or 419, 445, Mathematics 140 or 340; Computer Science 111; a modern language (preferably German) American Chemical Society certification – Biochemistry Track

Requirements: Chemistry 111, 112, 213, 214, 315, 335, 355, 418, 419, 316

or 425, 454, 455

Mathematics 190, 200

Physics and Engineering 121, 122

Computer Science 111, 220 or 260

Biology 107, 112, 226, 375

Minor (19 hours)

Requirements: 111, 112

Electives: 11 hours excluding 105, and including a minimum of 3 hours at 300 level or above

Teacher Licensure in Chemistry

Chemistry major with teacher licensure

Integrated science with chemistry major

Contact the chemistry department or education department for specific course requirements.

Course Offerings

105. Issues in the Chemical Sciences (4) is designed for non-science majors. The course is not open to those who already have credit for a 100 level chemistry course. Attention is directed to the dynamic and social nature of chemical science by relating contributions of individuals and groups to the advancement of chemical knowledge. Sections of the course will be dedicated to exploring the role of chemistry in selected areas of importance to society through the presentation of a set of fundamental chemical concepts. See the course schedule for a description of topics offered.

- **111, 112. General Chemistry** I, II (4, 4) deals with the structure of matter and the principles governing physical and chemical changes, developing the skills and techniques of analytical chemistry through inquiry. 3 hours of lecture and 3 hours of laboratory.
- **115. Organic/Biochemistry** (4) is a continuation from Chemistry 111 of the study and application of fundamental chemical concepts in the context of the allied health sciences. 3 hours of lecture and 3 hours of laboratory. Prerequisite: 111
- **200.** Laboratory Safety (1) is a lecture-demonstration course for students seeking scientific or scientifically related careers; it trains students to recognize the hazards of chemicals and how to work with them in such a way as to avoid acute and chronic injury to themselves, their co-workers and their environment. Prerequisite: previous or current enrollment in a laboratory science course
- **213, 214. Organic Chemistry** I, II (4, 4) deals with structure, preparation, and reactions of carbon compounds. The laboratory stresses qualitative organic analysis, synthesis, isolation, and purification of carbon compounds. 3 hours of lecture and 3 hours of laboratory. Prerequisite: 112

- 235. Environmental Chemistry (4) focuses on the study of current environmental problems including acid rain, ozone depletion, global climate change, urban air pollution, and ground water contamination. Laboratory work will emphasize concepts of special importance in environmental chemistry as well as field sampling and analysis. 3 hours of lecture and 3 hours of laboratory. Prerequisite: 112
- **240. Topics in Forensic Chemistry** (1) is a presentation and discussion of forensic chemistry topics of current interest and importance. This is a seminar-style course that provides the opportunity for students to gain an understanding of the field through general readings as well as the recent literature.
- **295.** Chemistry Research (1-4) provides the opportunity for investigation of research questions in the field of chemistry through laboratory and/or library research as supervised by a departmental faculty member. Four to five hours of work per week during the semester is equivalent to one credit hour. May be repeated for credit. Does not count toward the major. Graded S/U. Prerequisite: permission of instructor
- **315, 316.** Physical Chemistry I, II (4, 3) includes a theoretical study of thermodynamics, kinetics, spectroscopy, quantum chemistry, photochemistry, and phase equilibria. 3 hours of lecture, 3 hours of lab with 315. Prerequisite: 112; Co-requisite: Mathematics 200, PHEN 121
- **335. Analytical Chemistry** (4) is a study of the modern methods of chemical separation and analysis. In the laboratory emphasis is placed on application of modern instrumentation to chemical problems. 3 hours of lecture and 4 hours of laboratory. Prerequisite or Co-requisite: 315
- **355. Advanced Laboratory in Chemistry** (3) emphasizes thermodynamics, kinetics, quantum chemistry, and analysis through the application of modern analytical and physical techniques. 8 hours of laboratory. Prerequisite: 214, 315
- **418. Biochemistry I** (4) is the study of the chemistry of enzyme function and regulation, and the chemistry of metabolic pathways. Emphasis will be placed on the structure-activity correlations and mechanisms of reactions, as well as on the thermodynamics and kinetics of the reactions involved. The lab portion of the course will include current techniques for isolation and analysis of biomolecules and the study of enzymatic processes. Prerequisite: 214
- **419. Biochemistry II** (3) is the study of the biosynthesis of amino acids and proteins, nucleic acids, and lipids, and carbohydrates will be analyzed at the molecular and mechanistic level through a detailed study of structure, function, and reactions of the compounds involved. Prerequisite: 214
- **425. Advanced Inorganic Chemistry** (4) is a study of atomic and molecular structures, coordination compounds, and crystal structure. 3 hours of lecture and 3 hours of laboratory. Prerequisite or Co-requisite: 315

- **440. Topics in Forensic Chemistry** (1) is a seminar-style course that examines important topics in the field in depth, through readings, discussions, and presentations. Prerequisite: 240, 214
- **441. Forensic Chemistry Laboratory** (3) focuses on the practical applications of instrumentation used in a forensic laboratory for the chemical analysis of various types of physical evidence such as accelerants, explosives, paints, fibers, glass, and suspected drug substances. Prerequisite: 240, Pre or co-requisite: 214
- **445. Topics in Modern Chemistry** (3) focuses on selected special topics from the chemistry disciplines: analytical, inorganic, organic, or physical. The topics are chosen for their importance to modern chemistry.
- 454. Chemistry Seminar and Literature Research (2) involves comprehensive literature research on a chemistry-related topic of the student's choice, and writing of a detailed report on the findings. The course also features oral presentations, as well as the writing of a research proposal on the same topic researched in the literature. In addition, students are required to attend seminars by visiting scientists, organized by the department. Grading considerations are the thoroughness of the library work, quality of the research report and research proposal, effectiveness of presentations, participation, and attendance. All departmental faculty participate in this course. Co-requisite: 355
- 455. Chemistry Senior & Laboratory Research (4) is an independent experience under the guidance of one or more faculty members, designed to expose students to methods of investigation and inquiry, and enhance critical thinking and problem-solving skills. The course also includes oral presentations and writing of a final scientific paper. In addition, to stay current in the field being researched, students will continue the literature research begun in CHEM 454. Students are also required to attend a weekly seminar meeting. Prerequisites: CHEM 355, 454

Child and Family Studies Advisor, Associate Professor STEVENSON

This interdisciplinary major prepares students to become professionals who work within agencies that help children, adolescents, and their families. The major recognizes that these individuals need both broad-based coursework and experiences in a diversity of situations. Understanding the social context of development and how to use developmentally appropriate practice is essential for those who work with children. Those who work as child care directors or in agencies that serve children and families need to understand the factors that promote optimal growth and development.

At the core of the major are required courses in psychology, sociology, and education. Emphasis is given to diversity across individuals and cultures. Students also select one of the three areas of specialization. Each area leads

students toward a different career path. The administration track is designed for students who want to become child care directors or administrators of programs for children and families. The human services track is designed for students who want to work in human services or other social service agencies. The child development research track is designed for students who plan to pursue graduate studies. The major is also individualized for students through the practicum, internship, and senior thesis opportunities.

Major

Core courses (34 hours)

Education 112, 309, 371

Psychology 101, 205, 220, 222, 308, 399 Developmental/Educational, 409 Developmental Educational

Sociology 101, 345

Health Education 380

Specializations (one of the specializations or a double major in accounting, business, economics, psychology, or sociology)

Administration (18 hours)

Requirements: Accounting 201, Business 321, 341, Economics 215

Accounting 202 or Economics 216

Business 495, Accounting 495, or Economics 495

Suggested elective: Political Science 322

Child development research (16 hours)

Requirements: Psychology 151, 232, 493, 495 and one course from 305, 307, 351, 359

Human services (17 hours)

Requirements: Sociology 216, 301, 360, 422, 320 or 495, 496

Electives (6-9 hours or a double major)

Computer Science 100

Physical Education 319, 321

Political Science 321 or 322

Sociology 210, 301, 320

Speech Communication 345 (or any course from a different area of specialization

Other Requirements (6 clock hours)

Non-credit workshops on First Aid, Communicable Diseases and Child Abuse

Recognition/Prevention

Christian Education

See Religion and Philosophy

Computer Science

See Mathematics and Computer Science

Conservation Science

Associate Professor DOOLEY (Director and Advisor); Adjunct Faculty BEETEM, BLUMER, CAVENDER, GANDOLF, WOLFE

Conservation science is a relatively new field that brings an interdisciplinary approach to the complex and often multifaceted issues of species extinction, population decline, and habitat degradation. This exciting new domain of human inquiry requires a solid background in the physical, biological, and ecological sciences, but also emphasizes the analysis of economic, political, social, and ethical issues as a contextual basis for problem solving and decision making.

The program's rigorous interdisciplinary curriculum is designed to provide students with skills in analysis and communication that should prepare them for exciting careers in a broad number of areas including: the natural and social sciences, government service, non-government organizations, law, and global commerce.

Students work closely with an advisor from the start of their participation in the program to design an academic plan that will best suit their individual goals. Core courses provide grounding in the natural and social sciences. Additional courses are drawn from electives in the basic and applied sciences, social sciences, and other technical areas (e.g., computer science, statistics, remote sensing, water and soil analysis). As early as their first year, conservation science majors are also strongly encouraged to explore potential career options through internships and other programs providing pre-professional experiences. Finally, during their last three semesters, students are required to design and carry out an extensive research project.

Conservation science majors also benefit from partnerships that Muskingum University has developed with several local and regional institutions including the International Center for the Preservation of Wild Animals (The Wilds) and Zane State College. These collaborations provide many unique educational opportunities such as additional coursework, experience with environmental education, research training, and internship experiences.

Given the extensive number of course hours required to complete the major as well as the importance of providing adequate time for participation in internships and the development of an appropriate research program, students interested in pursuing a conservation science major should contact one of the program advisors at their earliest opportunity. Further information and program updates are available through the Conservation Science web site http://www.muskingum.edu/~cscience/

Major

Fundamental Group

Requirements: Biology 111, 112,107 (twice)

Chemistry 111, 112

Geology 101

Economics 215

Political Science 322

One course from Economics 325, Mathematics 140, 340

or Psychology 232

Conservation Group

Requirements: Conservation Science 331, 437, 438, 439 and 231 or 431

Zane State College Group (Select 2 Courses):

Environmental Resources Management 171, 218, 253

Parks, Recreation and Wildlife 130, 250, 260, 270

Surveying 142

Natural Science 240

Group A (Select at least 11 hours; no more than 8 hours can be selected from the same discipline)

Biology 306, 308, 312, 358, 375

Chemistry 213, 214, 235, 335

Geology 311

Environmental Science 421

Psychology 391

Group B (Select at least 12 hours; no more than 6 hours can be selected from the same discipline)

Business 321

Economics 333

Philosophy 203, 331

Political Science 231, 314, 351

Sociology 350

Religion 365, 393

Course Offerings

Conservation Science (CVSC)

- **231. Conservation Science Discussion** (1) presentation and discussion of important conservation issues in Conservation Science. Conservation Science majors must take this course or 431 at least once. Either course may be repeated for additional credit.
- **331.** Conservation Biology (4) provides an in-depth examination of the major issues and challenges that define this exciting new discipline. The course will place a great deal of emphasis on exploring the role and limitations of science in addressing contemporary conservation problems. The course design includes lecture, laboratory, and field trips.
- **431. Topics in Conservation Science** (1) a team-taught seminar course that uses readings from recently published articles and focused discussion to explore important conservation issues. Conservation Science majors must take this course or 231 at least once. Either course may be repeated credit.
- **437. Conservation Science Research Seminar I** (3) involves a discussion of a series of scientific papers covering a conservation topic. In addition, students search the biological literature related to the topic, prepare two literature reviews, and submit a scholarly research proposal at the end of the semester. Prerequisite: 331 or permission of instructor
- **438.** Conservation Science Research Seminar II (2) involves field, laboratory, or library research on a conservation problem. Prerequisite: 437
- **439.** Conservation Science Research Seminar III (2) involves field, laboratory, or library research on a conservation problem. Prerequisite: 438

Criminal Justice

Assistant Professors PARKER, PRAY (Director); Instructor VEGH

The criminal justice major is designed to familiarize students with the core components of the criminal justice system (law enforcement, courts, and corrections), as well as study the causes, consequences, and control of crime. The study of the criminal justice process involves a critical evaluation of the administration of justice, raises fundamental questions of its effectiveness, and examines various perspectives from which solutions to problems might be drawn.

Criminal justice is an interdisciplinary major formulated within a solid liberal arts framework. In addition to its criminal justice foundation, the curriculum draws heavily from within the social sciences, particularly political science, psychology, sociology, and law. The major prepares students for careers in law enforcement, courts and corrections, and for further study in graduate or law school. Recent graduates have begun careers in police and probation departments, correctional and juvenile detention facilities, and the armed services while other recent graduates have continued their education at the graduate level.

Major (33 hour)

Requirements: (18 hours)

Criminal Justice 101, 230, 250, 270, 395 or POLS 341, 495

Electives: (15 hours)

Remainder of hour requirements from departmental (CRMJ) courses

or from the following

Political Sciences (POLS) courses: 310, 317, 321, 322, 323, 325.

Course Offerings

101. Introduction to Criminal Justice (3) serves as a broad overview to the criminal justice field by examining such topics as criminal behavior and law enforcement, the court system and judicial processes, and corrections and rehabilitation.

- **230. American Law Enforcement** (3) discusses the philosophy and history of policing, the different types of police agencies, and the framework in which law enforcement agencies must work, as well as the relationship between police agencies and their communities. Prerequisite: 101
- **250. American Courts** (3) focuses on the legal concepts comprising the foundation of the American criminal court process, state and federal court systems, courts of limited and general jurisdiction, the actors within the court system, and the role of the courts on the other members of the criminal justice system. Prerequisite: 101
- **270. American Corrections** (3) uses a sociological perspective to examine the history, institutions, and practice of American corrections; specifically, issues of incarceration, probation, prisoner release, and criminal justice. Prerequisite: 101. See listings under Sociology 270

- 290. Spanish for Criminal Justice (3) is a Spanish language course offered to Spanish students in Criminal Justice and related fields. This course is intended to expand speaking and listening skills related to criminal justice as well as to promote a deeper understanding of Spanish-speaking communities in the United States from a socio-cultural point of view. Prerequisite: Spanish 212, its equivalent or permission of the instructor. See also SPAN 290
- **318.** Criminal Law (3) provides an overview of the basic concepts of crime definitions, criminal liability, elements of a crime, case precedents, and the rights afforded to individuals under the law. Prerequisite: 101. See listings under Political Science 318.
- **331.** Criminal Investigation (3) focuses on the methods of crime scene searches and documentation; physical evidence collection and preservation; information gathering; interviews and interrogations and case preparation. Prerequisites: 101 and 230
- **340. Organized Crime** (3) focuses on illegal organizations (i.e., the Mafia), whose formally organized activities are used to gather money through criminal enterprises and how they impact American society, including the social and economic effect on society, along with law enforcement efforts to minimize that impact.
- 341. Ethical Issues in Criminal Justice (3) examines the ethical issues faced by criminal justice professionals while performing their duties, including the topics of discretion and decision-making, and possibility of conflict between what is ethical and what is legal. Prerequisite: 101
- **342.** Criminology (3) examines various theories of crime causation, their history and development, and related crime control policies and practices. It also addresses the extent of crime in society, types of crime, and crime measurement issues. Emphasis is on the social context of crime and supportive evidence of various theoretical perspectives.
- **343. Victimology** (3) introduces the student to the development of the field of victimology. It will include the basic concepts regarding victimology, relevant theoretical and empirical literature, victim interactions with the criminal justice system, and policies and practices beneficial to victims of crime. It pays particular attention to special victim groups such as children, the elderly, and women.
- **350. Advanced Courts** (3) builds on the knowledge and skills developed in CRMJ 250 by emphasizing civil and criminal trial courts as well as the policy and impact of appellate courts. Students learn how to process cases from trial through appeal and will construct both a mock trial and a mock appeal. Prerequisite: 250
- **351.** Criminal Evidence and Procedure (3) examines the concept of evidence and the procedures governing its admissibility, as well as the substantive and procedural laws affecting arrest, search, and seizure. Prerequisite: 101

- **360.** White Collar Crime (3) examines the many varieties, definitions, measurements, and classifications of white collar crimes, the damages to individuals and society, and the responses of the criminal justice system, administrative agencies, and criminologists. Students explore crimes against consumers, unsafe products, environmental, medical and computer crime, fraud, and crimes by the government.
- **372. Juvenile Justice** (3) examines the juvenile justice system, including differences between the adult justice system based on values, court decisions and laws. The concepts of delinquency and delinquency control will be discussed, as well as the roles of law enforcement, courts, and corrections in the juvenile justice system. Prerequisite: 101
- 373. Community Corrections and Intermediate Sanctions (3) examines the policies, procedures, practices, and personnel involved in community-based corrections. Alternatives to incarceration will be emphasized in their historical, philosophical, social, and legal contexts. It will also discuss current issues and trends in this growing area of the criminal justice system. Prerequisite: 101
- **390. Internship in Criminal Justice** (1-3) involves a faculty supervised workstudy program in selected criminal justice agencies and allows students constructive participation in the criminal justice system. The internship must be arranged at least one semester prior to the actual start of the internship. Prerequisites: Junior standing and permission of supervising faculty
- **395. Research Methods in Criminal Justice** (3) introduces the basic concepts involved in conducting research in the study of criminal justice/criminology. Students develop and understanding of the qualitative and quantitative methods used to describe, explain, predict and evaluate criminal justice/criminological issues. Emphasis is placed on practical experience in developing research skills, as well as on critical analysis of methodologies. Prerequisite: junior or senior standing.
- **490. Topics in Criminal Justice** (3) provides students with a semester-long intensive study of a topic in criminal justice under the supervision of department faculty.
- 495. Research Practicum in Criminal Justice (3) provides guided experience in conducting research of a criminal justices/criminology topic of the student's choice. Through the process, the student demonstrates the skill set developed during the course of his or her studies. Prerequisite: 395 or POLS 341

Digital Media Design See Speech Communication and Theatre

Earth Science See Geology

Economics, Accounting, and Business

Professors BRADY, DRÜBEL, NOWAKOWSKI; Associate Professors GOLDEN (Chair), HYDELL, J. WILSON; Assistant Professor SWINDELLS

Economic forces affect all persons in many ways. Control of these forces depends on an understanding of them, gained through study in economics, accounting, and business theory. The close relationship between these three fields allows students to acquire specialized knowledge in any one of them through selecting it as a major field of study and, at the same time, to gain a basic understanding of the other two.

Each of the majors provides a background for graduate study in economics, business, and law, and for immediate participation in the business community. The accounting (public) major fulfills a part of the requirement for certified public accounting licensing in most states. The department is also a core participant in the interdisciplinary international business major. In addition to regular classroom course offerings in the listings which follow, arrangements may be made on an individual basis for special off-campus internships.

Students interested in an economics, accounting, or business major should contact the department chair at the earliest opportunity to ensure fulfillment of all degree and pre-professional requirements for completing a major in these areas and preparing for a related career.

Following are the specific major and minor requirements for each of the department's areas.

For additional information please consult the Economic, Accounting, and Business department's web site at http://muskingum.edu/~mbrady/eab/eab.htm

Economics major (36 hours)

Requirements: 215, 216, 325, 311 or 334, 333, 495

Accounting 201

Electives: two 300-400 level Economics courses and three additional departmental courses

Economics minor (15 hours)

Requirements: 215, 216, 311 or 334, 333

Accounting 201

Teacher licensure — integrated social studies, grades 7-12 (with an economics major) Contact the education department for specific course requirements.

Accounting major (36 hours)

Requirements: 201, 202, 301, 302, 363, 364, 411, 412, 495, and one course chosen from 420, 421, or 422

Economics 215, 216

Accounting (Public) major (60 hours within a 150 hour degree program)

Requirements: 201, 202, 301, 302, 363, 364, 411, 412, 420, 421, 422, 495

Business 318, 321, 360, 414; one elective

Economics 215, 216, 325

Accounting minor (15 hours)

Requirements: 201, 202 or 363, 301, 302 or 364

Economics 215

Business major (33 hours)

Requirements: 318, 321, 341, 495

Accounting 201, 202

Economics 215, 216, 311, 325 or 333

Electives: one Business course (300-400 level)

Business minor (15 hours)

Requirements: 321, 341, one additional 300-400 level business course

Accounting 201 Economics 215

Course Offerings

Economics

215. Principles of Microeconomics (3) concentrates attention on the determination of prices for goods and factors of production.

- **216. Principles of Macroeconomics** (3) presents a general description of the American economy and the theory of income determination and income fluctuations. Prerequisite: 215
- **311. Money and Banking** (3) examines the role of money in the economy, the instruments of monetary and fiscal policy, and the techniques of commercial banking, the Federal Reserve System, interest rates and institutions affecting the money market. Prerequisite: 215, 216
- **314.** Public Finance (3) surveys government income, expenditures, and transfer payments at the local, state, and national levels. Particular attention is given to fiscal policy, problems of taxation, and incentives and principles of debt management. Prerequisite: 215, 216 or permission of instructor
- **315. History of Economic Thought** (3) studies the seminal writers on economic analysis and relates their theories to the main stream of economic history and to current economic doctrine. Prerequisite: 215, 216
- **325.** Statistics (3) is concerned with the analysis of data and application of the principles of probability theory, decision theory, and statistical inference to the analysis of business and economic data. Emphasis is placed on the construction of economic models in order to gain an understanding of business and government. (Also listed under Business 325)
- **333. Intermediate Microeconomic Theory** (3) develops the methodology of economics and uses this to provide explanations about pricing of commodities and employment of factor services under conditions of full employment. Prerequisite: 215, 216

- **334. Intermediate Macroeconomic Theory** (3) examines the relationships among the aggregate markets for commodities, money, bonds, and labor. Emphasis is placed on analytical explanations for the determination of national income, output, employment, interest rates, and the price level. Prerequisite: 215, 216
- **341. Economics of Developing Countries** (3) deals with economic, social, cultural, and political characteristics of developing countries; theories of economic stagnation, development, and growth; domestic and international policies for promoting economic development; concomitant social and cultural changes. Prerequisite: 215, 216, or permission of instructor
- **361. International Trade** (3) examines the reasons for and gains from trade among nations, as well as the impact of trade restrictions. Prerequisite: 215, 216, or permission of instructor
- **362. International Finance** (3) examines monetary exchange rates, the balance of payments, capital flows, and the impact of international activity on domestic economies. Prerequisite: 215, 216, or permission of instructor
- 375. United States Economic History (3) examines issues, events, and policies in United States history from an economic perspective, using the basic tools of economics to gain increased understanding of such topics as: forces causing growth in the standard of living, the Great Depression, slavery, land policy, and the nature of technological change. Prerequisite: 215, 216 (Also listed under History 375)
- **411. Topics in Economics** (3) provides the advanced student an opportunity to study selected topics in economic theory. The course may be repeated as the subject matter changes. Prerequisite: 215, 216
- **423. Contemporary Issues** (3) covers current issues in macroeconomic or microeconomic policy, with emphasis changing with each offering. Students are given the opportunity to explore applications of basic economic theory and models to help understand such issues as monetary policy, the role of the Federal Reserve, tax policy, unemployment, social security, and Medicare reform. A specific list of subjects to be covered will be made available with each course listing. Prerequisites: 215, 216
- **425.** Econometrics (3) involves the empirical testing of economic hypotheses using, primarily, linear regression. The results can be used to determine how closely theory corresponds to observed behavior, to investigate which theories best explain behavior and to forecast what future conditions may produce. This course is designed to introduce students to basic econometric techniques. Possible remedies to the most frequently encountered problems will also be discussed. Prerequisite: a minimum grade of C in 325

- 435. Government and Business (3) considers the role of government in the American economy and examines contemporary governmental policies toward the private sector of the economy from both a legal and an economic viewpoint. The main topics are the enforcement of anti-trust in the unregulated sector and the improved regulation of industries subject to government controls. Prerequisite: 215, 216, or permission of instructor
- **495. Seminar** (3) enables the student to pursue an approved research project in economic theory. Prerequisite: 333

Accounting

- **201. Financial Accounting** (3) introduces the basic accounting theory and procedures for proprietorships, partnerships, and corporations.
- **202. Managerial Accounting** (3) covers the analysis and interpretation of accounting information for management planning, controlling, and decisions. Prerequisite: 201
- **301, 302. Intermediate Accounting** (3, 3) examines the elements of modern financial accounting theory in the preparation of corporate financial statements. Prerequisite: minimum grade of C in 201
- **363. Cost Accounting** (3) covers manufacturing cost accumulation for product costing and the analysis of costs for managerial decisions. Prerequisite: 201
- **364. Income Taxes** (3) analyzes federal income tax laws and their application to individuals. Prerequisite: 201
- **410. Topics in Accounting** (3) offers the student an opportunity to pursue the in-depth study of accounting theory not covered in other accounting courses. The course may be repeated for credit as the subject matter changes. Prerequisite: 302
- **411. Advanced Accounting** (3) involves the accounting for partnerships, consolidations, foreign currency translation, and governmental units. Prerequisite: 302
- **412. Auditing** (3) examines the concepts necessary to determine whether a business's financial statements have been prepared in accordance with generally accepted accounting principles. Prerequisite: 302
- **420. Accounting Information Systems** (3) will focus on acquiring and understanding of business processes which are fundamental to contemporary auditing, professional, and legal considerations relating to the organization's internal control processes. Detailed material on business and internal control processes are central to this course which stresses information, communication, and electronic commerce applied within the contexts of business processes, transaction cycles, and the internal control processes.

- **421. Advanced Taxation** (3) is the second course in the tax series and is a continuation of the Income Taxes course. Advanced taxation issues related to individual taxpayers will be examined. In addition, the taxation of corporations, partnerships, exempt entities, estates, and trusts will be covered in this class. Prerequisite: 364
- **422. Governmental Accounting and Auditing** (3) will focus on the unique aspects of the accounting methods that are used by governmental and not-forprofit entities. The course will also examine audit procedures and requirements that are applicable to these entities. Prerequisite: 302
- **423. Software Applications for Accountants** (3) will focus on business applications implementing EXCEL at both the introductory and intermediate levels, and Quick books. We will then apply these skills to accounting exercises and practice sets.
- **495. Seminar** (3) enables the student to pursue in depth an approved research project in accounting. Prerequisite: 302

Business

- **318. Managerial Finance** (3) studies the management of fixed and working capital, short and long-range financial planning, money and capital markets, expansion of income administration, business failures, and business reorganization. Prerequisite: Accounting 201, Economics 215
- **321.** Organizational Management (3) examines the classical, behavioral, and quantitative schools of management theory, with particular attention given to current research and practice. The nature of authority and responsibility, departmentation, line and staff relationships, organizational growth, managerial development, decision-making, and leadership of both profit and non-profit organizations are among the topics discussed.
- 325. Statistics (3) See listing under Economics 325.
- **326. Financial Analysis and Investment** (3) evaluates analytic techniques and alternative financial instruments available to the investor. Emphasis is placed on security selection, portfolio management, and the operation of markets. Prerequisite: Accounting 201, Economics 215
- **341. Marketing** (3) studies the problems of distributing goods, both industrial and consumer. Special attention is given to the increased importance of marketing techniques in modern economies.
- **360.** Business Law (3) studies law as it relates to business, including torts, crimes, contracts, commercial paper, and anti-trust laws.
- **411. Topics in Business** (3) is an in-depth study of current theory in selected areas and its application to organizational operations. The course may be repeated for credit as the subject matter changes. Prerequisite: by section specified at each offering

- **412. International Business** (3) studies business in a global context, stressing cultural, political, and economic environments facing international business and operational aspects of international management, international marketing, and international finance. Prerequisite: 321, 341
- **413. Software Applications for Business** (3) will focus on implementing EXCEL, Access, and PowerPoint at both the beginning and intermediate levels. The skills learned in class will be implemented in final presentations.
- **414. Business Ethics** (3) explores how managerial ethical behavior affects organizations, employees, communities, and society. Emphasis will be placed on current situations facing managers as they operate in an environment demanding increased corporate ethical behavior.
- 415. Human Resource Management (3) provides students with a thorough understanding of Human Resource Management issues, practices, and procedures. Through the use of classroom lectures, experiential activities, and cases, students will develop the ability to transfer advanced knowledge into practical applications when confronted with human resource opportunities, problems, and challenges.
- 416. Professional Selling (3) involves the study of direct person-to-person communication that facilitates mutually satisfying exchanges of value. Professional selling is an art; it involves informing and persuading while creating long lasting partnerships with clients. The main objective of this course is to introduce students to the challenging art of professional selling. We will discuss and analyze the techniques, myths, issues, ethics, and roles that selling plays in business. There are many skills that a successful salesperson needs, and many of these skills will be addressed through both in-classroom and out-of-classroom activities. Prerequisite: 341
- **417. Advertising** (3) will familiarize the student with the primary methods by which goods, services, ideas, people, and organizations can be advertised to an audience(s). A strong emphasis will be on the issues surrounding the management and planning of an integrated marketing communications strategy. Prerequisite: 341
- 418. Sports Management and Marketing (3) involves the study of sports business from a managerial and marketing perspective. This will include the concepts, tactics, and issues across two main thrusts in sports business: (1) the managing and marketing of goods and services directly to consumers of sport, and (2) the managing and marketing of other consumers and industrial goods and services through the use of sport promotion. To illustrate, the former would be a professional baseball team, while the latter would be an auto manufacturer sponsoring an athletic event. Prerequisites: 321, 341

- **419. Consumer Behavior** (3) analyzes the various inputs to, influences on, and outcomes of the consumer buying decision process. Among the topics discussed are consumer motivation; exposure and attention to marketing stimuli; learning, memory, and retrieval; attitude formation and change; problem recognition, information search, evaluation, and purchase decision making; social, cultural, and situational influences on consumer behavior; and various special topics. Prerequisites: 321, 341
- **420. Management Information Systems** (3) will provide a thorough understanding of how the manager can use the computer in problem solving. It is assumed that you understand the role of the computer as a problem-solving tool.
- **495. Seminar** (3) enables the student to pursue an approved research project in business theory. Prerequisite: departmental approval

Education

(Including Physical & Health Education)

Associate Dean for Teacher Education Professor OSGOOD; Dave Longaberger Chair in Teaching and Learning Professor HANSEN; Professors MORROW, KOKOVICH; Associate Professors BRUMBAUGH, COLLINS, COWDERY (Chair), ROGNESS; Assistant Professors, DAVIS, EDIZER, HALE, WATKINS; Instructor RANDLES: Lecturer HOWARD

The Muskingum University Teacher Education Unit is accredited by the National Council for Accreditation of Teacher Education (NCATE) for both initial and advanced programs.

Education

For information about the Master of Arts in Education and the Master of Arts in Teaching, see the *Graduate Studies Catalog*.

The conceptual framework for all Muskingum University teacher education programs is "Developing teacher-leaders who encourage, equip, and empower all students." The programs are designed to prepare graduates to successfully demonstrate competence on PRAXIS II, the State of Ohio's entry-year teacher performance assessment, and to become highly qualified licensed teachers.

At the undergraduate level, the department offers five majors, 23 licensure options and one endorsement. Students seeking licensure should secure an education advisor prior to the end of their first year in college and work closely with that advisor to ensure fulfillment of all University requirements for licensure.

Individuals desiring to work with adolescents ages 12 through 21 (grades 7-12) or in multi-age licensure areas (PreK-12) complete a major in a discipline along with the needed disciplinary and professional education courses to meet licensure requirements. Individuals seeking adolescent/young adult or multiage licensure should consult with both the chairs of the specific disciplines and the education faculty. They are required to have co-advisors, one from their major and one from the education department.

Courses leading to licensure are closely linked with clinical and field experiences in diverse settings. Field experience hour requirements are overviewed in the *Teacher Education Handbook* all students receive in Education 110, and are detailed in each course syllabus. Field experience hours are to be completed during the semester in which the specific courses are taken. Students are advised to schedule courses that include a total of no more than 50 field experience hours in one semester. Students must complete all 300 or above level education courses attempted with at least a grade of "B-." Any 300 or above level education course in which less than a "B-" is earned must be retaken. (These requirements include Education 309, 312, 313, 314, and 370 for provisionally admitted students.)

The culminating experience of each teacher education program is the professional semester completed during the student's final year in the program. Prior to the professional semester, all education courses must be completed as well as all courses in the major or concentration. (Exceptions to this requirement must be appealed to the Education Department in a formal letter.)

The professional semester consists of three weeks of education coursework, including a week of diverse field experience, and one twelve-week full day student teaching placement (two six-week placements in visual arts, foreign languages, health, music and physical education). Students teach according to the calendar of the school systems to which they are assigned and complete additional professional semester coursework during the evening hours. Each candidate completes a 12-week student teaching experience.

Acceptance into Muskingum University does not ensure entrance into the university's teacher education program. The teacher education program's policy, titled Gateways to Teacher Licensure, is presented and explained in detail in Education 110 and in the *Teacher Education Handbook*, which is available in the education department office.

The State of Ohio also requires successful completion of the required components of Praxis II and a BCI/FBI check prior to recommendation for provisional licensure. Students handle scheduling arrangements and fees for all teacher education program admission tests, the Praxis II, and the BCI/FBI checks. The fee for student teaching is listed under "special fees" in this catalog. Contact the education department for additional information.

Changes in state licensure requirements may result in changes in program requirements. The first-year class entering in the fall of 2009 will be starting grant-funded pilot programs which will build on existing licensure programs. Changes in required classes will occur in advance of students' official acceptance into the education department. Additional education majors may be made available to students as well. Students will need to work closely with their education advisors to ensure that they will meet new requirements for licensure and be able to graduate within a time typical for an undergraduate major.

For additional information please consult the education department's web site at http://www.muskingum.edu/~education/

Physical and Health Education

Professor NEWBERRY; Associate Professor ZICHA; Lecturers BLOOD, BOYD, CAUDILL, FORD, B. FOX, GLEASON, KASER, KIRBY, LOGAN, MARTIN, MONTGOMERY, REILLY, SHAUL, THOMPSON

A major in physical education examines the relationship of sports, athletics, and physical fitness to our culture and cultures throughout the world. The physical education student's preparation includes the acquisition of knowledge, skills, attitudes, and values from a vast array of courses. These courses include not only movement activities but also an understanding of associated physiological, biomechanical, sociological, psychological, historical, philosophical, and pedagogical principles.

This broad theoretical foundation of relevant disciplines is applied to the professional aspects of teaching, coaching, and administration of contemporary physical education. In addition, interested students may pursue careers in adapted physical education, athletic training, and physical therapy.

Participation in intercollegiate sports and/or intramurals is encouraged as a background for teaching. Those who do not play are encouraged to work closely with a sports program in some capacity. The department also provides an excellent scientific background with a modern physiology of exercise laboratory available for hands-on use by all majors.

A major in health education allows for the student to learn numerous skills and practices specifically designed to assist other individuals in the maintenance and improvement of their health. The health education student's preparation includes courses that include physical, psychological, social, intellectual, and environmental components. Special emphasis is placed upon providing educational and informational processes to help people change their attitudes and behaviors in an effort to improve their health.

Students are given the option to also pursue a State of Ohio, multi-age license in health education. All students are given practical hands-on experiences and internships in local, state, and national health agencies and organizations. Preparation is also given to those who wish to pursue advanced degrees leading to professional health related careers such as health promotion, assessment, and public programming.

Students expecting to enter physical therapy or recreation work should consult the department and work out a program appropriate for their vocational goals.

Early Childhood Education Major prepares individuals to teach children ages three through eight (grades pre-kindergarten through third).

Course requirements include:

Education 110, 112, 309, 315, 316, 330, 334, 335, 362, 366, 367, 370, 371, 412, 414, 418, 449, 461, 464

Interdisciplinary 115

Psychology 101, 205, 220 (preschool)

Sociology 101

Physical Education 319

Computer Science 100

Non-credit workshops in child abuse prevention, first-aid,

communicable disease, and nutrition

An institutionally approved minor

Middle Childhood Education Major prepares individuals to teach children ages 9 through 14 (grades four through nine) in two of the following content areas: math, science, language arts and reading, and social studies. Students may select any combination of two of the four content areas.

Course requirements include:

Education 110, 112, 312, 330, 335, 370, 372, 413, 414, 450, 461, 464, 465; two of the following: 382, 383, 384, 385

Psychology 101, 308

Computer Science 100

Two of the following approved concentration areas: reading/language arts, mathematics, social studies, science (must include an institutionally approved minor). (Specific concentration course requirements are available in the education department office and contained in the *Teacher Education Handbook*.)

Special Education Major prepares individuals to work with students with special needs in grades K-12 and leads to the Intervention Specialist: Mild to Moderate (K-12) license.

Course requirements include:

Education 110, 112, 330, 335; one of the following: 309, 312; 313 or 314, 341, 362, 366, 367 370, 371, 383, 385, 413, 414, 419, 420, 432, 434, 461, and 464; one of the following:b418, 465 or 466

Psychology 101, 205, 308

Sociology 101

Physical Education 319

Computer Science 100

Physical Education Major (31 hours)

Requirements: Physical Education 149, 203, 204 (substitute for two activities required for graduation), 310, 338, 341, 416, 418

Biology 121, 122

Electives: Two hours of Physical Education above the 100-level

Physical Education Minor (15 hours)

Requirements: Physical Education courses at the 200 level or above with at least 3 hours at the 300-400 level.

Coaching track emphasis

Requirements: Physical Education 101, 149, 203, 204, 205, 310, 338, 418 Athletic training track emphasis

Requirements: Physical Education 215, 310, 325, 338, 345, 450 Biology 121, 122

These courses (with the exception of 450) and 1500 hours of athletic training experienced under the supervision of an NATABOC -certified trainer are required for participation in the national athletic trainer exam.

Health Education Major (36 hours)

Requirements: Health Education 200, 345, 365, 380, 400
Biology 105 (Genetic Frontiers and Biotechnology, Human Biology, or Human Diseases), 107, 121, 122
Physical Education 149, 310, 470

Health Education Minor (15 hours)

Requirements: Fifteen hours of Health Education courses with at least 3 hours at the 300-400 level

Adolescent/Young Adult Licensure prepares individuals to teach grades seven through 12 (ages 12-21). Licensure area options are integrated mathematics, integrated language arts, integrated social studies, integrated science, physical science, chemistry, life science, earth science, and physics.

Courses requirements include:

Education 110, 112, 313, 330, 335, 413, 451, 461, 464, 466; one of the following: 391, 392, 394, 395

Psychology 101, 308

Computer Science 100

A disciplinary major that is a part of one of the adolescent/young adult licensure areas (Specific licensure course requirements are available in the education department office and contained in the *Teacher Education Handbook*.)

Multi-Age Licensure Areas prepares individuals to teach in Pre-K through grade 12 (ages three through 21) in music, modern languages (French, German, and Spanish), visual arts, health, education and physical education.

Course requirements include:

Education 110, 112, 314, 330, 335, 413, 451, 461, 464, 466

Music 482, 483 (in lieu of 451)

Physical Education 455 and 457 (in lieu of 451 and 466), Physical Education 490 (in lieu of 461)

Visual Arts: 455, 457 (in lieu of 451)

Psychology 101

Psychology 308 (except music majors)

Computer Science 100

A disciplinary major that is a part of one of the multi-age licensure areas

Physical & Health Education Licensure — prepares individuals to teach physical education or health education in the multi-age category (ages 3-21.) Physical education majors seeking multi-age licensure, ages 3 through 21, in physical education and athletic training certification may exceed 40 hours in Physical Education by 6 hours.

Contact the education department for specific course requirements.

Teacher Education at Muskingum University 155 students completed the program in 2007-08.

Praxis II Results

Total pass rate for all students who completed one or more Praxis tests by September 1, 2008 across all categories used by the State of Ohio for licensure was 96% at Muskingum University.

Assessment	Pass Rate
Professional Knowledge	97%
Academic Content Areas	98%
Teaching Special Populations	94%
Summary Pass Rates	95%

May 2009

Course Offerings

Education

- 110. Introduction to Education (3) studies the purposes and practices of education, helping students determine whether they wish to become professional teachers. Topics include history of education, philosophy of education, careers in education, motivation and discipline, analysis of teacher behavior, organization and goals of schools, the teacher, and the law. Required field experience: 12 hours
- **112.** Educational Implications of Diversity (3) presents a picture of the increasing diversity found within educational institutions and the implications it has for educators in developing both policy and practice. Prerequisite or Co-requisite: EDUC 110. Required field experience: 12 hours of observation and 10 hours of tutoring
- 211. Individual Topics (1-3) is a supervised clinical field, research, or independent study in education under the direction of a faculty member. It is designed to enable students to have learning experiences that extend beyond required coursework. The course requires periodic meetings with the course instructor, the writing of a journal, and a final written report, in addition to 30-35 hours of field or clinical work for each credit hour. Prerequisite: EDUC 110, 112
- 309. Early Childhood Education and Curriculum (3) provides students with the historical, philosophical, psychological, and social foundations of early childhood education. It also provides the curricular and instructional framework for providing meaningful, developmentally appropriate learning experiences, and accommodations for diverse populations of young children (ages 3 through 8). This course includes direct interaction with both typically and atypically developing preschoolers. Prerequisite: Admission to the teacher education program or Child and Family Studies major. Required non-credit workshops. Required field hours: 10. Prerequisite or co-requisite: EDUC 335, PSYC 205, 220.

- **311. Individual Topics** (1-3) See description for 211. Prerequisite: Admission to the teacher education program
- 312. Developmentally Responsive Middle Schools (3) provides comprehensive understanding of the nature and needs of early adolescents in grades 4-9 with an emphasis on applying this knowledge to the classroom and the total school environment. The course focuses on characteristics of developmentally responsive schools for young adolescents, as well as the rationale that supports such characteristics. Topics will include interdisciplinary teaming, teacher guidance programs, grouping and scheduling concerns, curriculum, pedagogy assessment strategies for culturally and developmentally diverse students, and the application of educational technology. Prerequisite: Admission to the teacher education program. Required field hours: 20. Prerequisite or co-requisite: EDUC 335
- 313. Curriculum and Instruction for the Adolescent (3) provides a foundation in curriculum and instruction for adolescent and young adults with emphasis on motivation, instructional planning, classroom structure, management, discipline, models of teaching, assessment, and learning styles. Prerequisite: Admission to the teacher education program. Required field hours: 20. Prerequisite or co-requisite: EDUC 335
- **314. Multi-Age Curriculum and Instruction** (3) provides a foundation in curriculum and instruction for teachers of multi-age subject areas, i.e., foreign language, music, physical education and visual arts. Prerequisite: Admission to the teacher education program. Required field hours: 20. Prerequisite or co-requisite: EDUC 335
- 315. The Arts in Early Childhood (3) is designed to provide the knowledge, skills, and dispositions required to effectively integrate art, music, movement, and theater into developmentally appropriate curriculum and instruction for young children. The course balances theory and practice, presents the arts as a means of enhancing the development of young children, and promotion of creativity and exploration. Prerequisite EDUC 309; IDIS 115
- **316.** Children's Literature (3) involves the study of classic and contemporary children's literature in a variety of genres. Emphasis will be placed on the selection and use of high-quality and developmentally-appropriate materials to support the reading process. Prerequisite: Admission to the teacher education program
- 330. Serving Individuals with Exceptionalities (3) investigates the nature and needs of individuals with exceptionalities across the lifespan, the etiologies of different exceptionalities, the identification process, and the continuum of placement and service alternatives. An emphasis is placed on the need of the intervention specialist to collaborate with other professionals to develop individualized education programs that enable learners to be successful in their least restrictive environments and to access services needed for learner independence. Ten hours of clinical experiences with individuals with different exceptionalities are required. Prerequisite: EDUC 110, 112

- 334. Family-Centered Practices (3) develops the knowledge and skills needed to provide appropriate educational opportunities for children in the context of family, community, and social service structures. This course emphasizes the development of communication and collaboration skills needed to effectively interact with parents, family services, and community agencies and to provide transition services across age levels. Technologies designed to promote successful communication are utilized. Also included is direct interaction with preschoolers with disabilities and their families as well as with community agencies and school-based programs serving young children through specific field experiences. Prerequisite: EDUC 309, 330
- **335.** Educational Technology (1) develops knowledge and skills to effectively integrate technology into the classroom based on the National Education Technology Standards and the Ohio Technology Academic Content Standards. Prerequisites: EDUC 110. Prerequisite or co-requisite: EDUC 309, 312, 313 or 314
- 340. Nature and Needs of Students with Disabilities (3) provides an in-depth examination of the state and federal legislation, policies, and procedures that define the field of special education. The learning, emotional, behavioral, adaptive, and medical characteristics and needs of students with disabilities and dual exceptionalities are explored in detail. Learner strengths and challenges are addressed from a variety of perspectives, with emphases placed on assistive technology, English language learning, access to the general curriculum, life-long learning, and personal advocacy. Required field experience: 20 hours. Prerequisite: EDUC 330
- 341. Assessment in Special Education (3) explores the variety of roles assessment plays in the identification of and provision of services for students with disabilities and dual exceptionalities. Basic assessment principles, response to intervention (RTI) policies, and mandated referral process steps are presented and applied to special education assessment practices. Candidates develop the knowledge and skills needed to select, administer, and interpret a wide variety of academic functional, cognitive, and behavioral assessment options for students with disabilities. Students use assessment profiles to develop Individualized Educational Programs (IEPs) that address appropriate services and support, assistive technology, and accommodations for instruction and high-stakes testing. Required field experience: 20 hours. Prerequisite or co-requisite: EDUC 340.
- 362. Integrating Language Arts and Social Studies in Early Childhood (3) develops the knowledge and skills necessary to provide developmentally appropriate and effective instruction based on the Ohio Academic Content Standards in language arts and social studies to diverse populations of young children in inclusive settings. Required field experience: 10 hours. Prerequisite: Admission to the teacher education program and EDUC 309 (or EDUC 312 or 313 or 314 for special education majors).

- 366. Mathematics in Early Childhood Education (3) develops the knowledge and skills necessary to provide developmentally appropriate and effective instruction based on the Ohio Academic Content Standards in math to diverse populations of young children in inclusive settings. Required field experience: 10 hours. Prerequisite: Admission to the teacher education program and EDUC 309 (or 312 or 313 or 314 for special education majors).
- **367. Science in Early Childhood Education** (3) develops the knowledge and skills necessary to provide developmentally appropriate and effective instruction based on the Ohio Academic Content Standards in science to diverse populations of young children in inclusive settings. Required field experience: 10 hours. Prerequisite: Admission to the teacher education program and EDUC 309 (or EDUC 312 or 313 or 314 for special education majors).
- 370. Phonics and the Process of Reading (3) develops linguistic and cognitive foundations for reading in an integrated language arts context. Emphasis is on the knowledge base of reading and on an introduction to comprehension strategies, the writing process, curriculum development, assistive technology, and assessment and diagnosis of reading difficulties. Additional emphasis is placed on phonics, phonemic awareness, and word recognition in an integrated language arts context. The course fulfills the state requirement in phonics for Early Childhood Education and Middle Childhood Education majors. Prerequisite: Admission to the Teacher Education Program or Child and Family Studies major
- **371.** Emergent and Beginning Reading (3) focuses on the research, methods, and materials used in developmentally appropriate pre-reading and reading instruction for diverse emergent and beginning readers. Required field experience: 10 hours. Prerequisite: 370 or a Child and Family Studies major.
- 372. Reading Methods for Middle Childhood (3) focuses on the research, methods, and materials appropriate for teaching reading to diverse learners in grades 4-9. Emphasis is on integrated curriculum strategies including knowledge, selection, and use of high quality children's literature. Includes use of phonics and word study instruction as appropriate for the young adolescent reader, as well as study of the nature of the English language. Required field experience: 20 hours. Prerequisite: 370.
- **375. Professional Practices in Mathematics** (3) focuses on participation in professional mathematics organizations, the use of technology in the mathematics classroom, mathematics education research including best practices, and Euclidean geometry.

- 382. Social Studies Methods for Middle Childhood Educators (3) develops knowledge and skills necessary to provide instruction based on national social studies standards and state curriculum models for students in grades 4-9, with an emphasis on the use of a variety of instructional approaches for culturally and developmentally diverse classrooms. The course will prepare students to utilize approaches to teaching and learning which integrate content relevant to students' lives, honor individual differences, and teach basic skills of inquiry and communication, including the application of educational technology. Required field experience: 20 hours. Prerequisite: EDUC 309 or 312 (or 313 or 314 for special education majors.
- 383. Language Arts Methods for Middle Childhood Educators (3) develops knowledge and skills necessary to provide instruction based on national language arts standards and state curriculum models for students in grades 4-9 with an emphasis on use of a variety of instructional approaches appropriate for culturally, linguistically, and developmentally diverse classrooms. The course will prepare students to utilize approaches to teaching and learning which integrate reading, speech, writing, and literature with the broader curriculum, develop literacy skills relevant to students' lives, honor individual differences, and teach basic skills of communication, including the application of education technology. Required field experience: 20 hours. Prerequisite: EDUC 312 (or 309 or 313 or 314 for special education majors) or 312.
- 384. Science Methods for Middle Childhood Educators (3) provides knowledge and skills necessary to provide science instruction consistent with national and state curriculum models for students in grades 4-9 with an emphasis on the use of a variety of instructional approaches appropriate for culturally and developmentally diverse classrooms. The course will prepare students to utilize approaches to teaching and learning which integrate content relevant to student's lives, honor individual differences, and teach basic skills of inquiry and communication, including the application of educational technology. Required field experience: 20 hours. Prerequisite: 312 (or 309 or 313 or 314 for special education majors).
- 385. Math Methods for Middle Childhood Educators (3) provides knowledge and skills necessary to provide math instruction consistent with national and state math curriculum models to students in grades 4-9 with an emphasis on the use of a variety of instruction approaches appropriate for culturally and developmentally diverse classrooms. The course will prepare students to utilize approaches to teaching and learning which integrate content relevant to students' lives, honor individual differences, cultivate skills in recognizing and solving problems and provide awareness of relevant teaching tools, including manipulative materials and educational technology. Required field experience: 20 hours. Prerequisite: 312; (309 or 312, or 313 or 314 for special education majors).
- **391. Integrated Language Arts Methods for the Adolescent** (3) focuses on special methods of teaching language arts in grades 7-12 with emphasis on integrated and interdisciplinary instruction, adaptations for learners with special needs, content specific reading strategies and applications of educational technology, and the Ohio Academic content standards. Required field experience: 10 hours. Prerequisite: EDUC 313.

- **392. Integrated Math Methods for the Adolescent** (3) focuses on special methods for teaching mathematic in grades 7-12 with emphasis on integrated and interdisciplinary instruction, adaptations for learners with special needs, content specific reading strategies and applications of educational technology, and the Ohio Academic Content Standards. Required field experience: 10 hours. Prerequisite: 313.
- **394. Integrated Science Methods for the Adolescent** (3) focuses on special methods of teaching science in grades 7-12 with emphasis on integrated and interdisciplinary instruction, adaptations for learners with special needs, content specific reading strategies and applications of educational technology, and the Ohio Academic Content Standards. Required field experience: 10 hours. Prerequisite: 313.
- **395. Integrated Social Studies Methods for the Adolescent** (3) focuses on special methods of teaching social studies in grades 7-12 with emphasis on integrated and interdisciplinary instruction, adaptations for learners with special needs, content specific reading strategies and applications of educational technology, and the Ohio Academic Content Standards. Required field experience: 10 hours. Prerequisite: 313.
- **412. Reading and Writing for Information** (3) develops strategies, techniques and skills for strengthening the reading and writing skills of diverse learners in the content areas in early childhood. Includes applications of educational technology. Required field experience: 10 hours. Prerequisite 371.
- **413. Reading in the Content Areas** (3) develops strategies, techniques, and skills for strengthening the reading skills of diverse learners in the content areas in the middle school and high school. Includes applications of educational technology. Required field experience: 10 hours. Prerequisite: 313, 314 or 372.
- 414. Reading Assessment and Intervention (3) examines research-based principles, techniques, and materials used in the assessment of reading skills and in the diagnosis of reading difficulties and intervention strategies for addressing them. Addresses cultural and linguistic differences in the assessment phases. Includes applications of educational technology. Required field experience: 10 hours. Prerequisite: 371 or 372.
- **415. Reading Practicum** (1) is 30 hours of field experience in a reading specialist's classroom, including reading instruction assessment, diagnosis, and remediation. A requirement for the Reading Endorsement. Prerequisite or Co-requisite: 414
- 418. Professional Practices for Early Childhood (3) taken as part of the professional (student teaching) semester, provides students with the skills to develop effective classroom routines and behavior management systems. Emphasis is placed on developing the knowledge, skills, and dispositions necessary for providing effective instruction in inclusive settings with diverse populations of young children. Prerequisite: Part of the Professional (student teaching) Semester

- 419. Family and Community Involvement in Special Education (3) develops the knowledge and skills needed to provide appropriate educational opportunities for children in the context of family, community, and social service structures. Emphasis on the development of communication and collaboration skills needed to effectively interact with parents, family services, and community agencies to provide transition services across age levels. Required field experience: 15 hours. Prerequisite: Admission to teacher education program and 340.
- **420.** Proactive Approaches to Classroom Management and Support (3) addresses the knowledge and skills needed to establish a safe, positive and supportive environment for all children. Emphasis placed on preparing and organizing resources to implement daily lessons, structuring time and roles of the student and teacher, and establishing the least restrictive environment for all children. Required field experience: 15 hours. Prerequisite: Admission to teacher education program and 340.
- **432. Student Teaching in Special Education** (9) is a 12-week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on student performance in settings that provide services for students identified with mild to moderate disabilities. Part of the Professional Semester
- 434. Instructional Services for Children with Mild/Moderate Special Needs (3) focuses on the selection and implementation of prevention, intervention, and instructional strategy alternatives for students with disabilities. Topics addressed include functional life skills, community-based instruction, social skill development, and multi-modal instruction in academic areas, including reading and learning strategy instruction. Environmental, instructional, and behavioral accommodation and modification alternatives for children with disabilities served in regular education settings are emphasized. Uses of educational technology and assistive devices to facilitate effective learning are explored. Prerequisite: 340. Required field experience
- **449. Student Teaching in Early Childhood** (9) is a 12-week supervised experience in planning for instruction taken as part of professional (student teaching) semester, creating an environment for student learning, teaching for student learning, and reflecting on student performance completed in an early childhood setting, pre-kindergarten through grade 3. Part of the Professional Semester
- **450. Middle Level Student Teaching** (9) is a 12-week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on student performance completed in a middle level setting, grades 4 through 9. Part of the Professional Semester
- **451. Student Teaching in the Secondary School** (9) is a 12-week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on student performance completed in a secondary setting, grades 7 through 12. Part of the Professional Semester

- 455. Student Teaching in Early/Middle Level Physical and/or Health Education (5) involves students as practice teachers under the supervision and guidance of a cooperating teacher and university faculty member in a six-week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on students' performance completed in a primary or middle school physical education setting, grades K-3 or grades 4-9. Part of the Professional Semester
- 457. Student Teaching in Secondary Level Physical and/or Health Education (5) involves students as practice teachers under the supervision and guidance of a cooperating teacher and Muskingum faculty member in a six week supervised experience in planning for instruction, creating an environment for student learning, teaching for student learning, and reflecting on students' performance completed in a secondary school physical education setting, grades 9-12. Part of the Professional Semester
- **461. Student Teaching Seminar** (1) is an opportunity for student teachers to synthesize the teacher education knowledge base and practice teaching experience through large and small group interaction with a focus on linking theory to practice in their student teaching placements. Part of the Professional Semester
- 464. The Professional Teacher (1) provides a capstone experience focusing on teacher professionalism and issues related to on-going professional development, including school law, school models, career paths, professional organizations, school administration and finance, and the Praxis III performance assessment process. The culminating activity is a formal exit interview during which the student shares his/her professional portfolio. Part of the Professional Semester
- 465. Professional Practices in Middle Level Education (3) provides students with the skills needed to develop effective classroom discipline, management, and organizational plans; provide on-going assessment and intervention; develop adaptations and modifications to meet the needs of individual learners; and develop parent and community linkages in the middle level classroom. Part of the Professional Semester
- 466. Professional Practices in Secondary Schools (3) provides students with the skills needed to develop effective classroom discipline, management and organizational plans; provide on-going assessment and intervention; develop adaptations and modifications to meet the needs of individual learners; and develop parent and community linkages in the secondary school classroom. Part of the Professional Semester

Physical Education

101. Concepts of Wellness (1) develops an understanding of basic exercise physiology and physical training principles. Students learn to assess their own personal level of physical fitness and the benefits of proper physical activity. At the conclusion of the course, students are ready to continue a lifetime of healthy physical fitness activity. Appropriate for adolescent level students.

- 102 through 140. Physical Education Service Courses (1) enable students to fulfill individual sports, team sports, and activity interests by covering a wide variety of activities such as aerobic fitness, archery, badminton, cheerleading and dance, flag football, lifeguard training, water safety instructor, tennis, golf, racquetball, soccer, softball, and varsity athletics. No activity may be repeated for credit and a maximum of three activities may be counted toward graduation requirements. Varsity athletes may take their respective varsity sport in any year of participation.
- **149. Physiology of Exercise** (3) analyzes the responses of the human body to physical activity. Lecture and laboratory experiences are involved.
- **151; 251; 351; 451. Practica** (1; 1; 1; 1) taken by students interested in training or working as student assistants with various sports. A maximum of three practica may be taken for major or minor credit. Graded S/U
- 203. Foundations of Athletic Skills: Individual (3) instructs the physical education major in the fundamental skills of the individual sports of archery, badminton, bowling, dance, racquetball, swimming, and tennis. Special emphasis is placed upon instruction and practice to allow for development of individual skill level. Prerequisite: declared physical education major
- **204.** Foundations of Athletic Skills: Team (3) instructs the physical education major in the fundamental skills of the team sports of basketball, soccer /speedball, softball, volleyball, field hockey (women), and football (men). Special emphasis is placed upon instruction and practice to allow for development of team skill level.
- **205.** Officiating Basketball (1) provides instruction and practical experience in officiating athletic competition for both men and women. Appropriate for middle level and adolescent level students.
- **206.** Officiating Football (1) provides instruction and practical experience in officiating athletic competition for both men and women. Appropriate for middle level and adolescent students.
- **207. Officiating Softball** (1) provides instruction and practical experience in officiating athletic competition for both men and women. Appropriate of middle level and adolescent students.
- **208. Officiating Track and Field** (1) provides instruction and practical experience in officiating athletic competition for both men and women. Appropriate for middle level and adolescent level students.
- **209.** Officiating Volleyball (1) provides instruction and practical experience in officiating athletic competition for both men and women. Appropriate for middle level and adolescent level students.

- 215. Sports Medicine (3) is concerned with basic recognition techniques used in inspecting injuries; covers methods and techniques for treating injuries; examines the operations of the athletic training room; and leads to an understanding the importance of preventing injuries. This course also provides some human anatomy and techniques, both dealing with middle child level students.
- **220.** Lifeguarding/Water Safety Instructor (2) teaches the methods prescribed by the American Red Cross to save a victim of multi-age in need and insure safety in an aquatic environment. Special attention is paid to the safety considerations and legal ramifications presented to the lifeguard. Counts as a service course. [This course is the first half of 250.]
- **230. PADI Scuba Diver Certification** (1) course leads to two possible certifications: PADI Scuba Diver (*pre-entry certification*) and PADI Open Water Diver (*full entry certification*). See department for details.
- **250.** Water Safety Instructor (4) provides the basic knowledge required to instruct students of multi-age in all areas of swimming progression as prescribed by the American Red Cross. Also included are evaluation techniques which allow students to certify individuals within the levels of swimming ability. Counts as a service course. (This course is the second half of 220.)
- **310.** First Aid (3) leads to National Safety Council Certification for First Aid. Recognition and care of injury are covered.
- 319. Motor Learning and Adaptive Physical Education for Early Childhood (3) designed to provide the future educator with the necessary foundation of fundamental movement concepts and principles for children ages 3-8. Special emphasis will be placed upon the use of developmentally appropriate practice to enhance the acquisition of more complex motor skills and patterns. In addition, educators will be given specific strategies necessary in the educating of children who require skill adaptation and the use of prescriptive exercise and equipment. Educators will attempt to establish a positive attitude and appreciation for regular health related physical activity throughout the child's lifespan. Lastly, the educator will experience first hand the importance of movement activities and how they assist in the child's psychological, physical, intellective, and social development.
- **321.** Motor Learning and Adaptive Physical Education for Middle Childhood (3) presents methods and materials for complete physical education instruction for children ages 9-14. Emphasis is on movement education, movement exploration, physical fitness, dancing, and specialized sports skills of basketball, football, floor hockey, soccer, softball, track and field, and volleyball. Practical teaching experience is included and teaching units are developed.
- **338. Kinesiology** (3) the study of musculoskeletal anatomy for efficient bodily movement and offers application of kinesiological and biomechanical principles for the implementation of physical education programs for students of multi-age. Laboratory activities allow students to have hands-on practical evaluation experience.

- **341.** Principles of Physical Education, Evaluation and Measurements (3) deals with basic concepts, philosophical foundation, and subsequent applications in physical education for multi-age students. Included are specific testing, measurement, and evaluation procedures utilized in the classroom.
- **355. Sports Ethics** (3) explores the various ethical issues in the area of sport and athletics. The class presents the framework for arriving at ethical decisions and actions, while uncovering the pressures to act in an unethical manner. Prerequisite: 203, 204, or Varsity sport for credit
- **416.** Teaching Physical Education Activities (4) is concerned with the methods and materials for teaching archery, badminton, bowling, racquetball, golf, dance, swimming, and tennis. Included is practice in teaching and conducting class activities for both middle and adolescent level students. Prerequisite: 203
- 418. Coaching Team Sports (4) prepares students to handle coaching problems such as organization, fundamental practice drills, strategies of play, selecting personnel, scouting, equipment, and keeping statistics. Football, soccer, basketball, volleyball, wrestling, baseball, softball, and track and field are covered for both middle and adolescent level students. Prerequisite: 204
- **423.** Camping and Recreation (1) examines the organization and administration of community recreation, camping, and outdoor education and covers planning, scheduling, and programming activities essential to school, camping, industrial, and organization recreation. Appropriate for multi-age students
- **450. Independent Elective** (1-3) enables a student to work cooperatively with a staff member in a directed study in physical education, athletics, athletic training, recreation or other areas with the approval of the department chair and the cooperating instructor.
- 470. Administration, Organization, and Supervision of Health and Physical Education Programs (3) designed to deal with the various methods of implementation for programs in health, physical education, and intramurals. Special emphasis is also placed upon the supervision and evaluation procedures of such programs.
- **490. Student Teaching Seminar** (1) is taken during the professional semester to enhance the student teaching experience for the multi-age students. Discussion of specific issues and concerns currently experienced by the student teacher

Health Education

200. Nutrition and Physical Fitness (3) provides both classroom and practical experience in the investigation of personal fitness and nutritional habits. Both exercise prescriptions and wise food choices will be combined together to promote a strong understanding of these issues as they relate to optimal healthful living and positive wellness.

- **345. Personal Health** (3) studies the health problems and concerns of young adults in America today. Topics of study will include stress management, emotional health, chemical dependency, sexual responsibility, physical fitness, heart disease, cancer, and communicable diseases. The primary focus will be on prevention, with students being encouraged to make lifestyle choices conducive to lifelong wellness.
- **365.** School and Community Health (3) studies health problems affecting entire communities and school settings, with particular focus on environmental issues, communicable disease control, and the risks of community living. The course will also serve to show how community and school action can work together to solve health problems. Special emphasis is placed on the role of public health agencies in health promotion and disease prevention.
- **380. Health Issues and Programs** (3) provides both on and off campus based experiences in the area of health promotion. Practical experience in a health agency in a variety of health settings will be provided. In addition, solutions to real and current health issues will be investigated in this course.
- **400. Health Curriculum, Methods, and Materials** (3) investigates the planning, organization, and use of instructional resources in the delivery of health education content and teaching strategies. Special emphasis is placed upon various types of curricular approaches that allow for teaching behaviors found to be conducive to learner achievement in health education.

Engineering Science

See Physics and Engineering

English

Professors CHAFFEE, EDSALL (Chair), WILLIAMSON; Associate Professors DeCUIR, VARLEY; Assistant Professors KALUHIOKALANI, WAGNER; Instructors J. FOX. WYNNE

The English department is concerned with two related though separable subjects: (1) the English language—including structure, grammar and syntax and the principles and practices of good writing; (2) the literature that has been achieved in the English language.

The writing courses offered by the department help students be more clear, creative and orderly in their written language and more observant and critical in their reading.

The study of literature is a discipline which broadens and integrates students' knowledge. Literature is an art, and reading it gives students a further awareness of the human search for excellence and transcendence which leads to artistic accomplishment. Moreover, a knowledge of literature expands our understanding of many other aspects of human life.

Students with English majors go into a number of careers. Besides graduate study and secondary teaching, a number of recent graduates have moved into advertising, journalism, library science, law, and business.

For additional information please consult the English department's web site at http://www.muskingum.edu/dept/english

Major (30 hours not including 121)

Requirements: 211, 231 or 232, 233, 495; 12 hours at 300-level or above

Minor (15 hours beyond 121)

Requirements: 3 hours at 300-level or above

Teacher licensure prepares the student to teach integrated language arts, grades 7-12 (which includes an English major.)

Contact the education department for specific course requirements.

Course Offerings

110. Fundamental English (3) offers a study of grammar, punctuation, mechanics, and usage. Writing from the sentence to the paragraph level and short essays. Does not count in the major, minor, education concentration, or LAE. Prerequisite: placement or permission of instructor

- **121. Composition** (3) requires students to write between five and six thousand words, applying rhetorical principles of literate discourse—principles as demonstrated in samples of effective writing by writers of diverse backgrounds. Includes grammar, levels of usage, the purposes of language, writing for different purposes, and audiences. Does not satisfy hours for the major or minor. Prerequisite: placement or completion of 110. **English 121** is a prerequisite for all English courses except 110, 213 and 217.
- **123. Masterpieces of Literature** (3) explores common themes found in literature. It examines their origins, their alterations, and the techniques of their expression, so that readers may see that human concerns are universal and diverse and that humans are resourceful in imaginatively stating their concerns.
- **124. Non-Western Literature** (3) explores common themes found in literature. It examines their origins, their alterations, and the techniques of their expression, so that readers may see that human concerns are universal and diverse. Does not count in the major, minor, or LAE.
- **201. Advanced Writing** (3) includes study and practice in the methods of organization and use of evidence to help students write more effectively and persuasively. Students read essays by writers of diverse backgrounds and learn to write for different purposes and audiences.
- **202. Business and Technical Writing** (3) concentrates on clarity and orderliness in preparing technical correspondence, studies, reports, and proposals. It pays particular attention to the conventions and requirements of scientific and business writing.
- **207. Introduction to Journalism** (3) introduction to the principles and concepts of journalism, the process of reporting, and writing the news. Emphasis is on print journalism with some attention to the electronic media. The writing of basic news stories and an analysis of their purpose, value, and content. Basic issues of taste and journalistic codes of conduct.

- **208. Editing and Make-Up** (3) fundamentals of editing, including rewriting, copy reading, headline writing, proofreading, page make-up and layout, and caption writing. Grammar and punctuation will be covered as necessary. Prerequisite: 207
- **209.** News Story Types (3) advanced news writing, concentrating on various news story types, such as speech, social events, accident, and disaster reports, as well as obituary, crime, political, and sports writing. The major emphasis is on writing. Prerequisite: 207
- **211. Principles of Literary Study** (3) explores the theoretical principles and the critical viewpoints based on them, which underlie the thoughtful, purposeful study of literature and applies them to key literary works.
- **213.** Journalism Design Practicum (1) offers students opportunities to develop layout and makeup experience by working on the student newspaper or yearbook. Students may study desktop publishing or photojournalism. A maximum of three design practica may be taken for major or minor credit.
- **217. Journalism Writing Practicum** (1) requires participants to write for the *Black and Magenta*, to meet weekly or biweekly assignments given by the editorial staff, and to attend workshops directed by a monitor from the English department and staff members of the *Black and Magenta*, or to work on the school yearbook. A maximum of three writing practica can be taken for major or minor credit.
- **231. Tradition of British Literature** I (3) studies the major literary movements and figures of British culture from Anglo-Saxon writings through the Neo-Classic Period.
- **232. Tradition of British Literature II** (3) examines the development of poetry and prose in Britain from the Romantic writers to the present. The political and intellectual contexts, as well as the subjects and styles of selected authors of both genders are studied.
- **233.** Tradition of American Literature (3) traces the growth of our literary art from its Old and New World roots through the discovery of distinctly American themes and forms. A diverse range of ethnicity, including native-, African-, Asian- and Hispanic-Americans and writers of both genders, is presented.
- **306. Creative Writing** (3) is an introductory writer's workshop exploring the genres of fiction, poetry, and drama, with simultaneous exploration of the creative act and the critical response through class participation and evaluation. Emphasis is on form as realized vision.
- **311. Adolescent and Young Adult Literature** (3) examines classic and modern literature suitable for grades 7-12, as it relates to the language arts curriculum, methods, and materials in the secondary school. Prerequisites: Education 309, 312. 313 or 314

- **315. Feature and Editorial Writing** (3) a study of the writing and marketing of the feature story, editorial, and investigative reports with an analysis of their purpose, value, and content.
- **316. Public Relations Writing** (3) a study of the current methods of writing copy for agencies, corporations, and not-for-profit organizations. The writing of press releases, with an analysis of their purpose, value, and content.
- 317. Journalistic Ethics (3) ethical problems and issues in mass communication with a framework of basic theories and social roles of mass media. Surveys the major ethical issues that concern journalism. Describes ethical dilemmas that confront broadcast and print journalist. Matters of journalistic morality, codes of ethics, codes of conduct, taste, libel, shield laws, and photo guidelines are covered.
- **319. Topics in Creative Nonfiction Writing** (3) will provide students the opportunity to explore the principles and practice of creative nonfiction writing. Topics might include memoir, personal essay, travel, food, humor, science, or others. May be repeated once with topic change.
- **323. Shakespeare and the Renaissance** (3) explores important themes and genres in the works of such writers as Spenser and Sidney, with special emphasis on the dramatic accomplishments of William Shakespeare.
- **329. Romantic and Victorian Literature** (3) explores the relation of nature to culture in major Romantic and Victorian poetry and representative prose sections; the position of art, the process of myth and metaphor in nature/culture relations.
- 331. History of the British Novel (3) studies the novel as an important literary and social development in Britain and follows some of the important changes in the structure, purpose, and audience of the novel through the eighteenth and nineteenth centuries. (Included: Defoe, Austen, Dickens, Eliot, and Hardy).
- **333.** Twentieth Century British Literature (3) examines the directions British fiction has taken in response to a changing social and literary scene: two world wars, the decline of the British Empire, the rise of working class, women, and minority writers. The course considers experimental and traditional writers from Joyce to the present, including Joyce, Woolf, Lawrence, and Forster.
- **341. Nineteenth Century American Fiction** (3) studies the works of the American romantics from Irving and Cooper through Hawthorne and Melville, then moves on to the realism and naturalism of Twain, Howells, Norris, and Crane.
- **343.** Twentieth Century American Fiction (3) studies the variety and richness of American fiction since the turn of the century, from the novelists of the 1920s through post-World War II writing and the contemporary novel. Topics include the 1920s novel, the war novel, and women and minority writers. (Included: Wharton, Hemingway, Faulkner, Vonnegut, and Morrison).

- **351. Modern and Contemporary Poetry** (3) makes a comparative study of modern poetry, with a primary emphasis on British and American works including Yeats, Eliot, Pound, Auden, Frost and the very moderns. The course shows the central development in form and content within the period.
- **361.** Language: Structure and Usage (3) studies the theoretical views and methodological tools for an accurate understanding of language, its structure, and usage. Emphasis is on the English language, covering topics such as language acquisition and development, the history of the English language, grammar, dialects, and levels of usage.
- **385. Readings in Literature** (3) provides for study of significant writers, genres, and themes. Possible subjects include Chaucer, Milton, Poe, Postmodernism, and feminist writing, as well as other topics devised by faculty or requested by students. May be repeated with topic change.
- **390. Advanced Creative Writing** (3) provides students with practice in a variety of forms, increasing in complexity. Individual style and voice in students' work as well as in contemporary authors are explored. Prerequisite: 306 or permission of instructor
- **394.** Classical Mythology (3) emphasis on Greek and Roman mythology and their influence on English and American writers. Various examples of Greek and Roman literature will be read in translation.
- **495. Seminar** (3) is the capstone course for English majors; students share in intensive study of a major literary work and write a paper of suitable length, applying the theoretical principles of literary criticism to that work. Discussions focus on analyzing literature, critical reading, and research methods. Students are expected to make a brief oral presentation at the end of the semester, summarizing their work. Offered each semester on a subject selected by the instructor. Prerequisites: 211; senior status or permission of department chair

English as a Second Language/ English Support Program See Modern Languages

Environmental Science

Advisor, Professor INGOLD; Associate Professors VAN HORN, TABACHNICK, ZOOK-GERDAU (Director)

Environmental science is a rapidly expanding interdisciplinary field concerned with investigating the nature and interactions of the hydrosphere, lithosphere, atmosphere, and biosphere as well as how human actions impact the natural environment. The exploration of current environmental problems requires a solid foundation in scientific principles and concepts as well as an understanding of the economic, political, and ethical implications that each of these problems poses in our society. The course of study described here prepares students to enter a wide variety of occupations as well as pursue graduate studies in an ever-increasing number of programs.

Each student majoring in Environmental Science will complete (1) the Core Courses (35 hours); (2) the Environmental Applications (6 hours); (3) a minimum of 8 hours of Group I electives; and (4) select a track of specialization (biology, chemistry, geoscience, or social science) within the major and complete courses within that track as well as the appropriate electives to complement that track as follows:

Biology Track: Environmental Science Major (80 hours) which includes Biology Track

courses 18 hours; Group II Electives 12 hours

Chemistry Track: Environmental Science Major (82 hours) which includes Chemistry Track courses 21 hours; Group II Electives 12 hours

Geoscience Track: Environmental Science Major (80 hours) which includes Geoscience Track courses 19 hours; Group II Electives 12 hours

Social Science Track: Environmental Science Major (78 hours) which includes Social Science Track courses 18 hours; Group III Electives 11 hours

For additional information please consult the environmental science program's web site at http://www.muskingum.edu/home/admission/majors/environsci/1.html

Core Courses (35 hours)

Biology 105 (Environmental Science) or 111, 112, 107 (twice)

Chemistry 111, 112, 235

Geology 101 or 110, 104

Mathematics 140, Economics 325, or Psychology 232

Physics and Engineering 121 or 101

Environmental Applications (6 hours)

Environmental Science 121, 421, 422 or 428

Group I Electives (Select a minimum of 8 hours)

Any one course from biology, chemistry, or geoscience track which does not already fulfill a major requirement.

Computer Science 111, 260

Mathematics 190, 230, 350

Physics and Engineering 122 or 101

Geology 313, 322

Geography 111

 Group II Electives (Select a minimum of 12 hours from at least two different disciplines - Required for biology, chemistry, and geoscience track majors)

Economics 215, 216, 341, 361, 411

History 385

Political Science 111, 131, 321-323

Philosophy 331

Religion 393

Sociology 370

Groups III Electives (Select a minimum of 11 hours - Required for social science track majors)

Choose at least two (8 hours):

Biology 308, 358 or 306 or 375 or Conservation Science 331

Chemistry 213, 214, 315, 335

Geology 200, 220

Geography 321

Choose at least one (3 hours):

History 385, 377

Political Science 111

Philosophy 331

Religion 393

Sociology 370

Biology Track (19 hours):

Biology 226, 232, 308, 312, 358 or 306 or 375 or Conservation Science 331

Chemistry Track (21 hours):

Chemistry 200, 213, 214, 315, 335

Mathematics 200

Geoscience Track (19 hours):

Geology 200, 220, 301, 302

Geography 321

Social Science Track (18 hours):

Economics 215, 216, 341 or 411

Political Science 131, 322, 351

Course Offerings

- **121.** Environmental Issues (1) presentation and discussion of selected topics of importance in environmental science. This course, team-taught by the environmental science faculty, permits students to explore this broad field through general readings and discussion.
- **221.** Environmental Science Research (1-4) is an investigation of a research question in the field of environmental science through laboratory and/or library research as supervised by a faculty member. Four to five hours of work per week during the semester is equivalent to 1 credit hour. May be repeated for credit. Graded S/U. Prerequisite: declared environmental science major
- **421. Topics in Environmental Science** (1) a seminar course, team-taught by the environmental science faculty, explores in detail, through reading and discussion of recently published reports and topics in the field. Environmental Science majors must take the course for at least one credit. May be taken for additional credit. Prerequisite: environmental science major core completed or consent of major advisor
- **422. Advanced Internship In Environmental Science** (4) requires the successful completion of a minimum of 120 hours during either a semester or a summer as an intern in an environmentally related situation. Prerequisite: junior standing, core completed, prior approval of internship

428. Environmental Science Senior Research (4) laboratory, field and/or library research on a topic related to environmental science. The project will be selected in consultation with a faculty member and will involve a literature search and experimental work. Prerequisite: environmental science major with senior standing

French

See Modern Languages

Gender Studies

Advisor, Professor J. ALESANDRINI

The interdisciplinary Gender Studies minor analyzes the impact of gender upon individuals and societies. In Gender Studies, the roles of women and men in literature, philosophy, history, the sciences, and education are examined; how have these roles changed and how will they be altered in the future?

Students benefit by expanding their vision of the world and by examining their most basic assumptions about gender roles and stereotypes.

Minor (15 hours)

Requirements: 15 credit hours from three departments and two academic divisions; at least six hours at the 300-level or above; and Interdisciplinary 291.

Social Science Division:

Anthropology 201

History 372 (with the addition of a major paper, topic to be approved by the program advisor)

Political Science 366

Psychology 321 Sociology 216, 341, 345

Arts and Humanities Division:

Religion 353, 360

Speech Communication 395

English 385 Gender Issues in Literature, Women and Literature

French 325

German 325

Theatre 381 Gender in Performance

Education Division:

Education 112 (with addition of a major paper, topic to be approved by the program advisor.)

Options: Special topic courses in other departments (Political Science, Business, Education, Art, Psychology, Neuroscience, and Conservation Science, for example) could also count toward the Gender Studies minor. Internships (up to three credit hours) consisting of placement at an agency dealing with gender-based concerns (sexual assault intervention, shelter work, etc.), writing, designing or editing Gender Studies newsletter or journal, working with programs in the schools (to encourage nontraditional careers, for example, or to assist single parents). Directed or independent study, cross-listed courses from a variety of departments.

Geography

Associate Professor VAN HORN

Geography courses are offered as a service to Muskingum University students who are interested in studying the spatial relationships between man and his environment.

Course Offerings

- 111. World Regional Geography (3) introduces the eight major cultural regions of the earth. The course emphasizes the human adaptation patterns to variations in physical characteristics of the earth's environments. Special attention is given to human activities such as agriculture, population dynamics, resource development, economic systems, and religious expression.
- **310. Introduction to Geographic Information Systems** (3) focuses on the theory and practical applications of geographic information systems (GIS). Basic concepts along with the following topics: map projections and coordinate systems; vector and raster data; data display; data analysis and modeling; will be introduced. 2 hours of lecture and 1 hour of laboratory.
- **321.** Weather and Climate (3) introduces meteorology and climatology. The course treats the subjects from both descriptive and theoretical points of view.
- **331. Regional Geography** (3) studies the interrelationships among physical, economic, and cultural phenomena within various regions. A) Anglo-American Geography, B) European Geography, C) Latin-American Geography.
- **345. Directed Studies** (3) pursues subjects not offered as formal courses including, Regional Geomorphology, Urban Geography, and others. Prerequisite: permission of instructor

Geology

Associate Professors LAW, VAN HORN (Chair); Assistant Professor RODLAND

The Geology Department seeks to encourage an intelligent awareness of the earth and of humans' relationship to their physical environment. Students may major either in geology or in earth science (a major designed for those who wish to pursue a career in secondary education). The department also encourages interdisciplinary majors of the student's design.

The department's equipment includes a scanning electron microscope, Bioscan image analysis system, petrographic and binocular microscopes; surveying equipment, a portable seismic refraction unit, large mineral, rock, stratigraphic, paleontologic, archaeological, and map collections; and a self-recording weather station. The department also has access to equipment housed in other departments of the University, including all computer servers on the campus, individual Macintosh and IBM PC computers, atomic absorption spectrophotometer, radiological laboratory, and a well-equipped machine shop.

All seniors participate in original field and/or laboratory research. An active Geology Club and the Eta Lota chapter of Sigma Gamma Epsilon (the national honorary society in Earth Science) sponsor field trips, speakers, and extracurricular activities.

During the last decade, about half of Muskingum's geology majors have gone on to graduate school. Some of these students have subsequently obtained employment in exploration and research in the areas of petroleum, nuclear fuels, coal, and metalliferous minerals. Others have been employed in federal and state geological surveys, while still others have served as geological consultants for governments, individuals, and industries. Graduates going directly into the job market are employed in a variety of occupations in industry as well as in teaching.

Students interested in a geology and/or an earth science major should confer with the department chair at the earliest opportunity to ensure fulfillment of all requirements.

For further information please consult the geology department's web site at http://www.muskingum.edu/~geology/

Geology major (30 hours)

Requirements: 101 or 110, 104, 301, 302, 311, 313, 322, 495, 496, one course in field geology at a field camp approved by the department Chemistry 111, 112

Recommended for graduate school: Calculus and 2 courses in each of physics and engineering, biology, foreign language

Geology minor (15 hours)

Requirements: at least 3 hours at the 300-400 level.

Earth science major (9 courses)

Requirements: Geology 101 or 110, 104, 200, 301, 302, 311 Geography 321 Physics and Engineering 150 Geology 395 or Geography 111

Earth Science minor (15 hours)

Requirements: at least 3 hours at the 300-400 level.

Teacher licensure — earth science or integrated science. Contact the education department for specific course requirements.

Course Offerings

- **101. Introduction to Geology** (4) studies forces, processes, and events which have shaped our physical environment. Laboratory and field trips
- **102. Selected Topics in the Geosciences** (4) introduces the student to the concepts and techniques of data collection and interpretation in an important area of the geosciences. Laboratory and field trips
- 104. Earth History (4) studies the methods and principles employed in deciphering the geologic history of the earth and the development of life. Emphasis is upon the geological evolution of the North American continent and the main features of the fossil record. Laboratory and field trips. Prerequisite: 101 or 110
- 110. Environmental Geology (4) focuses on the interaction between humans and geologic environment. Geologic phenomena such as flooding, volcanoes, earthquakes, shoreline, and soil erosion are examined. Environmental problems to be discussed include groundwater pollution, geologic constraints on sewage and solid waste disposal, resource utilization, acid rain, and the greenhouse effect. Students will gain a strong understanding of how geology influences many of these environmental problems. Laboratory and field trips
- **200. Oceanography** (4) is a broad study of the marine environment which emphasizes the interrelationships of living and non-living systems. Current concepts of ocean evolution are analyzed with respect to their physical, chemical, and biological importance. Laboratory and field trips
- **220.** Landform Evolution (4) is a comprehensive analysis of geological processes operating at or near the earth's surface. Topics include weathering, soil development, mass wasting and fluvial, glacial, eolian, and coastal erosion and deposition. Geomorphic systems are viewed primarily from a process-response perspective. Laboratory and field trips
- **295. Research Experience** (1-3) offers course credit to freshman or sophomore students interested in geology, earth science, and/or geoscience who would like to obtain some research experience.
- **301. Mineralogy** (4) deals with the physical properties of minerals. The course includes descriptive crystallography, optical mineralogy, and x-ray methods. Laboratory. Prerequisite: permission of instructor
- **302. Petrology** (4) studies igneous, sedimentary and metamorphic rocks and their genesis. Laboratory. Prerequisite: 101 or 110
- **311. Paleontology** (3) encompasses the taxonomy, morphology and recognition of stratigraphically-significant invertebrate fossils. Biostratigraphy, paleoecology, and the evolutionary history of organisms as viewed from the standpoint of the fossil record are also included. Micropaleontology, vertebrate paleontology, and paleobotany are introduced. Laboratory and field trips. Prerequisite: permission of instructor

- **313. Structural Geology** (3) deals with the mechanical principles of rock deformation and the resulting development of folds, faults, joints, and other tectonic features. The related causes and mechanisms of mountain building are also discussed, along with continental drift, sea floor spreading, and plate tectonics. Laboratory and field trips. Prerequisite: 101 or 110
- **322.** Sedimentology and Physical Stratigraphy (3) studies the principles that govern the distribution and variability of sediments and sedimentary rocks. Emphasis is upon interpretation of source, mode of transport, and environment of deposition of sedimentary sequences by analysis of vertical and lateral variations in texture, composition, sedimentary structures, and geometry of sedimentary rock bodies. Laboratory and field trips. Prerequisite: 101 or 110, 104
- **395. Topics in Geology** (1-4) provides the opportunity to pursue advanced studies in subjects not offered as formal courses. The department offers such studies in the areas of geomorphology, geochemistry, and other topics.
- **495, 496. Geological Research** (2, 3) is an intensive study of a selected problem in geology. Sufficient field and laboratory time to complete the project are required. Prerequisite: permission of the department

German

See Modern Languages

History

Professor KERRIGAN, Associate Professors HATTINGH, HILTON, McGRATH (Chair); Assistant Professor BOSWORTH.

The discipline of history studies the record of civilization throughout the ages. Historians seek to understand the style, achievements, and imperfections of earlier generations in a number of areas of the world in order to appreciate ancestral heritage. Knowledge of the past also can provide the perspective and context necessary for our understanding of contemporary society. By looking at the past, students may be better equipped to identify the significant issues of the present and be better prepared to cope with the challenges of the future. Training in this discipline develops analytical skills and approaches to problem solving which will be useful throughout our lives.

The history faculty work directly with students not only in the classroom but also in special departmental projects, programs, and colloquia, many of them organized by the local chapter of Phi Alpha Theta, national honorary.

History provides an excellent pre-professional background. Graduates have entered a wide variety of fields including teaching (at the elementary, secondary, college, and university level), law, the ministry, government, journalism, international relations, communications, social and human services, business, historic preservation, museum or archival operations, the armed forces, and publishing.

Students interested in a history major should contact the department chair at the earliest opportunity to ensure fulfillment of all degree and preprofessional requirements for completing a major in history and preparing for a related career.

For additional information please consult the history department's web site at http://www.muskingum.edu/~history/

Major (30 hours)

Requirements: 111, 112, 211, 212, 420, 460 *Electives:* one course from each grouping

European 315, 318, 320, 321

Non-Western 344, 346, 347, 348, 350, 351, 353, 354, 356 American 368, 372, 373, 374, 375, 376, 377, 382, 383, 385

Remainder of required hours from other departmental offerings

Minor (15 hours)

Required: 111, 112; or 211, 212

Teacher licensure — integrated social studies, grades 7-12 (with a history major).

Contact the education department for specific course requirements.

Course Offerings

- **111.** The Emergence of the Modern World I (3) surveys selected aspects of World History from the fourteenth to eighteenth century. Traces the political, economic, intellectual, and cultural institutions and trends of various world societies of Asia, Africa, the Middle East, Europe, and the Western Hemisphere.
- **112.** The Emergence of the Modern World II (3) surveys selected aspects of World History from the eighteenth century to the present. Traces the political, economic, intellectual, and cultural institutions and trends of various world societies of Asia, Africa, the Middle East, Europe, and the Western Hemisphere.
- **211. United States History to 1877** (3) covers the period from the first American Indian settlements to 1877, emphasizing the origin of the United States and the rise of democratic ideas and institutions.
- **212. United States History since 1877** (3) deals with the period 1877 to the present, emphasizing the development of the United States as an industrial and a world power.
- 315. The Holocaust (3) provides an overview of the state-sponsored murder of millions of Jews and non-Jews by the Nazis and their collaborators during World War II. It examines important historical factors that occurred before the Third Reich's rise to power, the development of policies aimed at Jews and other "undesirable" elements of the population and how those persecuted responded to them, the path of the Final Solution, and the aftermath and legacy of the Holocaust.
- **318.** Nineteenth Century European History (3) deals with the political, economic, and cultural development of Europe from the Congress of Vienna to World War I.

- **320.** Twentieth Century European History (3) analyzes significant events and trends in modern Europe from World War I to the present. Emphasis is placed on Germany, France, Great Britain, and the Soviet Union.
- **321.** Early Modern European History (3) covers the period from the late Renaissance (1450 through the Enlightenment, 1780). It deals with such topics as the late Renaissance, the Scientific Revolution, the Reformation and Counter-Reformation, the expansion of trade, exploration and colonization, the rise of new systems of government (absolute monarchy and constitutional monarchy), the military revolution, the witch hunts of the 1500s and 1600s, and the Enlightenment.
- **344.** East Asian History to 1800 (3) examines the origins and development of traditional civilizations of China and Japan to the 19th century. Emphasizes the development of the Confucian state and society, the rise of Imperial China, the emergence of aristocratic culture in Japan, the transition to Samurai rule, and early contact with the West.
- 346. Southeast Asian History (3) covers the development of Southeast Asia (Indonesia, Malaysia, Singapore, Thailand, Vietnam, Cambodia, Laos, Burma, the Philippines, and East Timor) in the historical context of conflict between the indigenous societies and the global community of the colonial powers. The course will contextualize and examine the pre-colonial order, the colonial powers in SEA, World War II, and post-war independence movements. Political, social, and intellectual trends with an emphasis on the diversity of experiences will be highlighted, but the course is intended as an introduction to a broad and diverse region of the world.
- 347. Modern China (3) examines China's evolution from an imperial state to a revolutionary society dominated by the Chinese Communist Party. Attention shall be paid to political attitudes and elements of society and culture in contemporary China that reflect links to a past that remained influential both as an inspiration and a stumbling block as China remade itself in the twentieth century. In addition, the course explores discontinuities in modern Chinese history brought about by wars, imperialism, revolution, industrialization, and the other forces that broke down or decisively altered the underpinnings of Chinese society. This course's reading and lectures are built upon five major themes: foundation and success of early Qing dynasty, peasant rebellion and Western imperialism, reform and revolution in the twentieth century, Republican China and its challenges, and the birth and development of the PRC.

- 348. The Western Impact on Modern Japan (3) explores the three ways Japan has become an empire during the past two centuries: through the restoration of imperial rule in the nineteenth century, through its imperialist expansion in Asia during the early twentieth century, and through its emergence as a global economic power in the post-War order. To understand these developments, one must examine the interplay between the internal dynamics of change in Japanese society, culture, and politics, on the one hand, and the impact of the West on Japan during these formative events. This will mean addressing how indigenous changes in Tokugawa, Japan interacted with pressure of Western Imperialism to cause the imperial restoration and reforms as well as the relationship between Japan's imperial expansion and imperial rule at home.
- **350.** Latin American History to 1810 (3) examines the process of encounter between the Old and New Worlds. It focuses initially on Pre-Columbian and Iberian societies prior to 1492, and it examines the social, political, cultural, and economic impact of Spanish and Portuguese colonizations in South America. It devotes particular emphasis to countries such as Mexico, Peru, and Argentina from the colonial to the national periods.
- **351. Modern Latin America since 1810** (3) emphasizes the historical developments which followed political independence in 1810. It centers around the impact of Iberian colonization on contemporary forms of political, social, and economic organization in both Meso and South Americas. Themes such as development, social inequality, racial identities, imperialism, and authoritarianism will surface frequently as the course moves into the contemporary period.
- **353.** History of Mexico, Pre-Columbian to Present (3) traces the history of this important Latin American country from its Pre-Columbian era to the present. It focuses on the merging of both native groups such as the Aztecs and the Mayas with the Spanish colonizers, forming a unique society in the New World. Mexico's distinctive historical phases, from colonization to independence, will also be closely examined to deepen the understanding of the 1910 Revolution and its course throughout the twentieth century.
- **354. History of Argentina** (3) examines the transformation of Argentina from colony to modern nation, and investigates such topics as caudillismo, federalism, populism, military government, and democratization.
- **356. History of Modern Africa** (3) surveys the history of Africa with emphasis on sub-Saharan Africa in the period after 1800. Topics include state formation, African systems of belief, colonialism and its legacy, labor, migration, and the struggle against Apartheid in South Africa.
- **368. Religion in the United States** (3) studies Protestantism, Catholicism, Judaism, and other religious movements. It examines the development and interaction of religion with other aspects of culture in the United States. See also Religion 368.

- 372. Colonial and Revolutionary America, Discovery–1788 (3) examines societies and people of West Africa, Western Europe, and Eastern North America as they came together in the region and created a new world in the 17th and 18th centuries. Special emphasis is placed on social differences (ways of getting a living, women's roles, and gendered division of labor and family structure) and their role in the ensuing conflicts and accommodations. Prerequisite: 211
- 373. Nationalism and Sectionalism in the Early Republic, 1789–1865 (3) analyzes the political evolution of the new nation under the Constitution, its struggle to preserve independence from foreign powers, economic and social development, and the rise of sectional discord and civil war. Prerequisite: 211
- **374. Ohio History** (3) is a survey of the economic, cultural, political, and social history of Ohio, from prehistoric time to the present.
- 375. United States Economic History (3) examines issues, events, and policies in United States history from an economic perspective, using the basic tools of economics to gain increased understanding of such topics as: forces causing growth in the standard of living, the Great Depression, slavery, land policy, and the nature of technological change. Prerequisites: Economics 215, 216. See listing under Economics 375.
- **376. American Diplomatic History** (3) traces the origins of American foreign policy with emphasis on the period since 1890. Conflicts over issues of imperialism, collective security, isolationism, neutrality, and the Russian-American rivalry from the Cold War to the present are explored.
- 377. History of Environmental Politics (3) explores the history of environmental politics in the United States by examining several case studies in contemporary policy from a historical perspective. Special emphasis is placed upon the skills of using historical evidence as a component of policy analysis. See listing under Political Science 327.
- **382.** The Rise of Industrial America, 1865–1932 (3) focuses upon sectional reunification and reconstruction after the Civil War, Gilded Age society, and politics and the emergence of the United States as an industrial global power. Prerequisite: 212
- **383.** The Emergence of Modern America, since 1933 (3) examines the impact of continuing economic and technological change, nativism, the Great Depression, World War II, and the Cold War upon American society and government. Prerequisite: 212
- 385 American Environmental History (3) studies human societies and their relationship to their environment over time. The focus is on the environmental history of North America from pre-Columbian times to the present. Topics explored include the Columbian exchange, evolving concepts of man's relationship to nature, the government's role in conservation and preservation, and the emergency of an environmental movement in recent decades.

390. Topics in History (3) deals with selected topical courses such as Early Warfare, Baseball, Gender and History, Public History.

398. Internship in History (1-3) designed to offer students jointly supervised history-related work experience. Students will be expected to submit a work dossier and related research project at the end of the internship. Prerequisite: junior standing and prior permission of the instructor; credit does not count toward a minor.

420. Readings in History (3) permits students to explore historical topics in depth under the direction of a faculty member. Prerequisite: junior or senior history majors or permission of the instructor

460. History Research Seminar (3) emphasizes methodological and bibliographical research techniques in the discipline of history. Students research and write on specific topics to meet acceptable standards of historical analysis and style. Prerequisite: junior or senior history majors or permission of instructor

Humanities

Advisor, Professor NUTT

An interdisciplinary major in humanities may be designed around a unique theme or meaningful cluster of courses in the arts and humanities division (art, English, modern languages, music, religion, philosophy, speech communication, and theatre).

For additional information please consult the humanities department web site at http://www.muskingum.edu/~humanit/

Major

Requirements: 40 hours (exclusive of LAE core and elected distribution courses) from four of the six humanities division departments—art, English, modern languages, music, religion and philosophy, speech communication and theatre

Restriction: Maximum of 29 hours in any one discipline.

Informatics

Professor RATAICZAK (Chair); Associate Professor PERRY; Assistant Professors KAUFMANN, REICHARD

The Department of Informatics prepares students at the graduate level with competencies (knowledge, technical and non-technical skills and behaviors) for productive professional roles in which information technology and other technologies are applied in academic and professional domains. The department offers the Master of Information Strategy, Systems, and Technology degree.

Information technology is an essential tool of inquiry and data management for virtually every academic discipline and organization, but students of technology need the skills to understand and communicate with non-technical people with whom they work. Informatics programs integrate technical skills, discipline/organization-based knowledge, thinking, project management, and

problem-solving, thereby preparing students to evaluate and use technology effectively in their fields of study or work.

Interdisciplinary

Muskingum offers the opportunity for interdisciplinary studies which draw on the offerings of various departments. The student has two options: (1) to construct a self-designed interdisciplinary major in an area of professional preparation or academic interest not currently available in the curriculum; (2) to elect an already established interdisciplinary major in American Studies, Child and Family studies, Conservation Science, Environmental Science, Humanities, International Affairs, International Business, Journalism, Molecular Biology, Neuroscience, or Public Affairs. Descriptions of each of these programs are included in the alphabetical listing of majors.

Students planning a self-designed interdisciplinary major consult appropriate academic and departmental advisors in developing a rationale and course of action for the major. The major encompasses work from at least three departments and consists of no fewer than 40 or more than 60 hours, with a limit of 30 hours in any one department. The primary consideration for approval of self-designed interdisciplinary majors is that the proposal demonstrates respect for the depth that the major traditionally provides in the liberal arts curriculum and includes an appropriate seminar experience. The proposal requires curriculum committee approval and advanced consultation with and endorsement by the advising faculty and department chairs from the participating disciplines.

Course Offerings

- **100.** First Year Seminar (1) provides students with a common academic experience during their first semester. The course offers an extended orientation to the academic environment within a context of common readings, assignments, and activities. The course also introduces students to academic resources on campus.
- 115. Introduction to the Integrated Arts (3) is an interdisciplinary presentation of the arts. The course fulfills a *Western Heritage* LAE distribution requirement and also may serve as a prerequisite for Education 315. *The Arts in Early Childhood Education*, by enabling the early childhood education major to acquire the knowledge and skills to be able to work in a classroom environment.
- **120.** Library Research Methods (2) introduces students to library research and information literacy skills, emphasizing the strategies needed for effective research. Students learn to apply that strategy to bibliographical research.
- **140. Model United Nations** (1) develops an understanding of foreign policy and the workings of the United Nations by researching countries and participating in an intercollegiate Model United Nations simulation. Students must be members of the Muskingum University United Nations Club and participate in the intercollegiate simulation.

- **150. Arts and Humanities in Western Culture** (3) fosters an appreciation of the landmarks of the Western cultural heritage in religion, philosophy, language and literature, the visual arts and architecture, music, and theatre.
- 250. Career Field Experience (1-2) involves an introductory supervised experience in a vocational field. The experience is closely supervised by a faculty member and an on-site supervisor. This initial experience provides a gateway to a vocational and/or academic field AND may serve as a preparation for future internships. Students may earn 1-2 credit hours per experience, with a maximum of 4 credit hours applying to graduation requirements. Graded S/U. Prerequisites: 28 earned credit hours and good academic standing of a minimum 2.0 cumulative GPA. Students receive one credit hour for 40 hours of work.
- **291. Introduction to Gender Studies** (3) introduces selected topics in Gender Studies. Inclusive of all disciplines and team-taught by Gender Studies faculty, the course will give an orientation into the field through reading, writing, and discussion.
- **300. Internship** (1-6) involves a supervised experience in a vocational field related to a program of study. The program is closely supervised by faculty members and by an on-site director. Students may earn 1-6 credit hours for each distinct internship, with a maximum of 16 hours including student teaching applying to graduation requirements. Graded S/U. Prerequisite: junior standing, 2.5 GPA. [The junior standing prerequisite is waived for students participating in Disney internships.]
- **330. Student Development in Higher Education** (1) provides an overview of higher education with special attention to philosophy and theory of student development and its practical application in the residence hall setting. The course serves as an intensive training program for students managing residence halls. Prerequisite: selection as resident assistant
- **360. Pre-Law** (1) is an analysis of the Law School Admission Test, the Law School Data Assembly Service, and the Law School Candidate Referral Service. Students take a sample examination under conditions approximating those of the LSAT. Graded S/U. Prerequisite: junior standing
- **388. Student Senate Leadership** (1) open to the four Student Senate officers (President, Vice President, Secretary, and Treasurer) who are elected by the full student body for leadership positions for the academic year. Each may receive this credit for each semester they serve in one of those elected positions. Graded S/U
- **440. GRE Preparation** (1) is an analysis of the General Test for the Graduate Record Exam. Students will take a series of sample tests, receive instruction in testing techniques, and the graduate school admission process. Students must also register to take the GRE General Test. Graded S/U. Prerequisite: senior standing or permission of the instructor

- **490. Public Affairs Senior Seminar** (3) involves an intensive research project reflecting the student's skills and interests in a public affairs topic. Each student works individually with a faculty member in completing the project. Prerequisite: senior status or permission of instructor
- **491. Seminar in International Business** (3) enables the student to pursue an approved research project involving international business practice and theory. Students are strongly encouraged to work with advisors to develop seminar topics/approaches that synthesize language and business skills and that demonstrate appropriate intercultural competencies. Prerequisite: completion of the international business major business core
- **492. Humanities Senior Seminar** (3) involves necessary for the completion of the senior seminar, resulting in an extensive written research project in which the student will formulate a question to study, propose a thesis to be argued, and present support for that thesis in the final paper.

International Affairs

Advisor, Associate Professor MORRIS; HATTINGH

Students majoring in International Affairs should be able to understand and analyze global conflict and cooperation through a broad interdisciplinary program. By taking courses for the major, students will examine the historical development of regions, nations, peoples, and ideologies; learn about international trade, finance, and international economic development; develop an awareness of different cultures and contemporary global concerns; hone language skills; and gain awareness of international institutions and mechanisms which facilitate or hinder global cooperation.

Major (42 hours)

Core requirements: 12 hours from

Economics 215, 216

History 112

Philosophy 203

Political Science 131, 342

A senior seminar experience selected in consultation with the international affairs advisor and a department involved in the international affairs major (3 hours)

Distribution requirements: At least 27 hours including courses in three disciplines from the first three groups

Social and Economic Development (3 hours)

Anthropology 201

Economics 341, 361

Religion 393

Sociology 350

International Relations (6 hours)

History 320, 376

Political Science 251

Comparative Culture and Politics (9 hours)

French 325 German 325 History 346, 351 Political Science 331 Spanish 325

Language Skills - either (a) or (b)

- Participation in an approved study abroad program that includes 3 hours of course work in a foreign language.
- b. Completion of a Muskingum University foreign language course at the 212 level or above, excluding French, Spanish, or German 325 if taken to fulfill the Comparative Culture and Politics distribution.

Two additional 300- or 400-level courses from the listed courses, excluding those already used to fulfill requirements.

International Business

Advisors, Professor NOWAKOWSKI, WEHAGE; Associate Professor MORRIS

The international business major provides students with a set of competencies necessary for success in today's globalized economy by combining courses from diverse disciplines. Students learn the language and basic principles of business, accounting, and economics; acquire multicultural awareness and communication skills in a world language [English (for non-native speakers), French, German, or Spanish]; and gain an international perspective through their coursework in political science, history, and other areas. These interdisciplinary insights are complemented and enhanced through an approved international learning experience. Students have flexibility in both the core and the elective components of the major to select a program of study that balances their own specific areas of international interest with a solid professional background in business.

For additional information please consult the international business web site at on the Muskingum University home page list of majors and minors http://www.muskingum.edu

Major (42-60 hours)

Core (33-53 hours, including at least 3 completed in an advisor-approved study abroad program)

Accounting 201 (3)

Economics 215, 216, 361 (9)

Business 318, 321, 341 and 412 (12)

History 320, 347, 348 or 351 (3)

Political Science 131 or 251 (3)

Interdisciplinary 491 (3)

International business capstone course (senior seminar) to be taken after completion of French/German/Spanish 240; Economics 215 and 216; and Business 318, 321, 341 and 412. Students are strongly encouraged to work with advisors to develop seminar topics/approaches that synthesize language and business skills.

Language Proficiency (3-19 hours)

- a. For students whose native language is English: French/German/Spanish 240: Business French/German/Spanish
- b. For students whose native language is not English: English 202 *Electives* (6-7 hours from the following, excluding courses used to fill requirements listed above):

Accounting 202; Anthropology 201; Business 326, or 411; Economics 362; English 202; Geography 111; History 320, 346, 347, 348, 353, 376, 390; Political Science 131 or 251, 331, or 354; Psychology 271; an additional course in French, German, or Spanish excluding 123; Religion 393; Sociology 350; Interdisciplinary 300 (approved by international business faculty advisor).

Journalism

Advisor, Assistant Professor WAGNER; Professors EDSALL, HARMAN, MARTIN; Assistant Professor MARSHALL

The interdisciplinary major in journalism is designed for students interested in a career in either broadcast or print media. The program is designed to provide hands-on skills and experience while also helping the student to develop an understanding of the context in which events occur.

Students who major in journalism may not minor in English or in speech communication. They are encouraged to minor in a subject that will allow them to specialize in the field of communication. For example, a student wishing to write for a science journal might choose to minor in biology or chemistry.

Journalism Major (46-47 hours)

and (3 hours) Print Journalism

Requirements:

Journalism 111, 207, 208, 209, 210, 312, 495 Speech Communication 211 or 308, 345 English 213, 217 (taken twice), 315 or 316, 317 Two courses from Speech Communication 101, 201, 301, 401 Internships: Interdisciplinary 300 (3 hours) *Audio* or *Video Production*

Recommended electives: Art 170, Economics 341; History 376; Political Science 314; Sociology 216

Course Offerings

111. Media Writing and Performance (3) emphasizes the production planning, writing, and scripting processes as the necessary first steps in preparing material for radio and television productions. Students write and deliver broadcast news and features, commercials, promotional announcements, and longer format programs. See also SPCO 111.

- **207. Introduction to Journalism** (3) introduction to the principles and concepts of journalism, the process of reporting, and writing the news. Emphasis is on print journalism with some attention to the electronic media. The writing of basic news stories and an analysis of their purpose, value, and content. Basic issues of taste and journalistic codes of conduct. See listing under ENGL 207
- **208.** Editing and Make-Up (3) fundamentals of editing, including rewriting, copy reading, headline writing, proofreading, page make-up and layout, and caption writing. Grammar and punctuation will be covered as necessary. Prerequisite: 207. See listing under ENGL 208.
- **209. News Story Types** (3) advanced news writing, concentrating on various news story types, such as speech, social events, accident, and disaster reports, as well as obituary, crime, political, and sports writing. The major emphasis is on writing. Prerequisite: 207. See listing under ENGL 209.
- **210. Media History and Effects** (3) surveys the evolution of newspapers, magazines, film, telecommunication, and advertising/public relations. The power, impact, and roles of these media in today's digital and global society are examined. See listing under SPCO 210.
- **312.** Electronic Media Structure and Content (3) surveys programming, economic, and structural issues in contemporary electronic media. The impact of new communication technologies on the traditional radio/television enterprises is also emphasized. See listing under SPCO 312.
- **495. Journalism Senior Seminar** (3) is the capstone course for journalism majors. The student will compile a portfolio of work done as a journalism major at Muskingum; take a comprehensive journalism exam; work in-depth on a thesis project, either critical or creative, under the supervision of his or her journalism advisor; and present the results of this project to an audience of peers and faculty members. Prerequisite: senior standing in journalism

Mathematics and Computer Science

Professors CRAFT, (Chair), HOLLINGSWORTH; Associate Professors DAQUILA, PERRY; Assistant Professors, BOSLEY, KAUFMANN, REICHARD; Instructor SHAFFSTALL

The mathematics curriculum is designed to portray mathematics as a universal language of creative and critical thought and to meet the needs of those who intend to teach, to do graduate work in mathematics, and to pursue careers which rely substantially upon mathematics.

The computer science curriculum not only provides instruction and experience in using computers and networks, but it also studies the applications and effects of computing systems in today's society. It is designed to prepare the student for further study and/or work in the area of computer science.

The department offers two majors: (1) mathematics and (2) computer science. The department also encourages students' design of their own interdisciplinary concentration incorporating mathematics and/or computer science with additional disciplines in accordance with University policy.

Students interested in a mathematics or computer science major should contact the department chair at the earliest opportunity to ensure fulfillment of all requirements for these majors.

For additional information please consult the mathematics and computer science department's web site at http://www.muskingum.edu.

Mathematics major (32 hours)

Requirements: 190, 200, 225, 230, 310, 330, 410, 495, Computer Science 111 and 6 additional hours at the 300-level or above. Mathematics 350 may not be counted as an elective for both mathematics major and for computer science major.

Mathematics minor (15 hours)

Requirements: 190, 230, three hours at 300-400 level *Electives:* remainder of hours from other offerings (excluding 090),

including at most one course at the 100 level (other than 190)

Computer science major (29 hours in computer science)

Requirements:

Computer Science 111, 211, 260, 320, 350, 400 or an internship in the computing field, 450, 495

Mathematics 190, 225, 230

Electives: 3 courses from Computer Science 220, 340, 360, 370, 480, 490, Mathematics 350

Computer Science minor (15 hours)

Requirement: 320

Teacher licensure — integrated math, grades 7-12 Contact the education department for specific course requirements.

Course Offerings

Mathematics

NOTE: Due to the sequential nature of the study of mathematics, once students have received credit for, or established proficiency at, one level in a sequence of mathematics coursework they are not allowed to receive credit toward graduation for a prior course in a lower sequence. Students with such questions concerning the applicability of sequential coursework should consult the department of Mathematics and Computer Science.

- **090. Developmental Mathematics** (3) presents a review of key elements of Arithmetic, Geometry and Basic Algebra designed to prepare the student for college level mathematics. Grade does not count in GPA. Credit does not count in minimal hours toward a degree.
- **120. Mathematics for Elementary School Teachers** (3) includes a study of those topics in algebra and geometry of particular use in the elementary (K-8) curriculum. Prerequisite: 3 years of college preparatory mathematics or 090. Credit can be earned toward graduation for either 120 or 150 but not both.

- **140. Statistics** (3) presents basic statistical concepts and utilizes the computer. No prior computer experience is needed. Prerequisite: 3 years of college preparatory mathematics or 090
- 150. Liberal Arts Mathematics (3) contains currently useful topics in mathematics which depend only on elementary concepts; for example: problem solving, logical reasoning, probability, statistics, functions, relations, set theory, matrices, graphs, trees, and models. Prerequisite: three years of college preparatory mathematics or 090. Credit can be earned toward graduation for either 120 or 150 but not both.
- **170.** College Algebra (3) includes topics in algebra, analytic geometry, and logarithmic and exponential functions. Prerequisite: three years of college preparatory mathematics or permission of the department.
- 175. Trigonometry (1) topics include trigonometric functions along with their graphs, identities, equations, and various applications. Selected topics will be useful for the study of calculus. Prerequisite or Co-requisite: 170
- **190. Beginning Calculus** (4) introduces the concepts of limit, continuity, derivative, integral, and applications. It assumes some knowledge of trigonometric functions and equations for lines and conic sections. Prerequisite: 170 and 175 or equivalent, including trigonometry
- **200. Intermediate Calculus** (4) continues the study of calculus and includes such topics as methods of integration, logarithms, exponential, indeterminate forms, and infinite series. Prerequisite: 190
- **225. Discrete Mathematics** (4) introduces set theory and probability and deals with relations, digraphs, trees, lattices, and Boolean algebras and their computer application, as well as studying languages and grammar. Prerequisite: 170 or equivalent, Computer Science 110 or 111
- **230. Linear Algebra and Vectors** (3) includes the study of vectors, matrix algebra, vector spaces, linear transformations, and determinants. Prerequisite: 190
- **310. Multivariate Calculus** (3) includes the study of the basic concepts of calculus applied functions of more than one variable and related applications. Prerequisite: 200; Co-requisite: 230
- **320. Differential Equations** (3) includes the study of first and higher order differential equations, methods for obtaining solutions, and applications. Prerequisite: 200, 230
- **330. Algebraic Structures** (4) includes the study of groups, rings, fields, vector spaces, and other related topics. Prerequisite: 225, 230
- **340. Mathematical Statistics** (3) includes the basic theory and applications of probability and statistics. Prerequisite: 310

- **350.** Numerical Analysis (3) presents the concepts and methods of numerical solutions for mathematical problems and includes applications using the computer. Prerequisites: 200, 230, Computer Science 111
- **360. Geometry** (3) presents the study of several geometries, including synthetic and metric Euclidean, non-Euclidean, projective, and finite geometries. Prerequisite: 225, 230
- **370. History of Mathematics** (2) surveys the history and development of mathematics from ancient times through to the present day. It will also show the contributions made to the field by mathematicians from a diversity of ethnic, racial, and gender groups. Prerequisite: 190, 230
- **410. Analysis** (4) presents a rigorous development of the calculus and an introduction to real analysis. Prerequisite: 225, 310
- **420. Complex Analysis** (3) is an introductory study of the theory of functions of complex variables. Prerequisite: 310, 320
- **430. Applied Mathematics** (3) includes such topics as series solutions of differential equations, Fourier series and integrals, Bessel functions, Laplace transformations, partial differential equations and vector and tensor analysis. Prerequisite: 310, 320
- **490. Topics in Mathematics** (3) studies in greater depth topics in the other listed courses. Prerequisite: permission of the instructor
- **495. Mathematics Seminar** (1) provides a setting for the study and mastery of selected expository papers. Students lecture on the subject of the chosen paper and take an oral examination. Prerequisite: permission of instructor

Computer Science

- **100. Introduction to Computing** (3) presents an overview of computers, networks, and an introduction to a number of application programs. Special emphasis is placed on web page development and web access. Topics include an introduction to computer science and its history, discussions of the relationship between computing and society, and an examination of ethical issues surrounding computer and network usage. The course is intended for non-computer science majors.
- **110. Introduction to Software Development** (3) introduces software development. Fundamental concepts and algorithms are explained, and programs are developed using graphical development environments. Problem solving skills are emphasized and developed.

- 111. Computer Science I (3) introduces object-oriented software development. Fundamental concepts and algorithms are examined and object-oriented programs are developed using the Java and C++ languages. The relationships between software and other areas of computer science are examined and fundamental concepts in computer science are introduced. Prerequisite: 3 years of college preparatory math or Mathematics 170 and 175, 2 years of computer usage in high school or equivalent experience.
- **120. Computer Applications** (1) consists of a series of projects to explore the use of specific application software packages. Prerequisite: 100 or equivalent
- **211. Computer Science II** (3) extends and enhances concepts started in 111. Software engineering techniques, program structure, and system programming concepts are studied. A number of application areas are introduced, including numeric and non-numeric problems, sorting, searching, game theory, data management, and graphics. The languages used are Java and C++. Prerequisite: 111 or permission of the department
- **220. Applied Computer Programming** (3) studies with each offering a particular computer programming language (e.g., C++, Python, PHP, COBOL, Java, and Perl) and the applications in which that language is traditionally used. Prerequisite: 111 or permission of instructor
- **260. Database Management** (3) explores database approaches for data organization. Relational and object-oriented data access methods are examined with an introduction to database principles and the usage of databases. SQL Server, Access and Excel are used for assignments and classroom presentations. Intended for majors and non-majors in computer science. Prerequisites: 100, 111 or 2 years of high school computer experience
- **310. Assembly Language Programming** (3) introduces computer architecture via concepts and techniques particular to assembly language programming for the Pentium family. Several processor architectures are presented and the relationships between these architectures and their respective assembly languages are discussed. Other topics studied include macros, numbering systems, network communication, and robotics. Prerequisite: 111
- **320.** Algorithms and Data Structures (3) explores structures such as stacks, queues, trees, and graphs and the algorithms needed to efficiently access and use them. Algorithms are analyzed from a practical and theoretical viewpoint. Prerequisite: 211, Mathematics 225
- **340. Programming Languages** (3) develops the concepts of language structure and uses these as a basis for comparing several languages. Formal language definitions are introduced and the concepts of syntax, semantics, and pragmatics are discussed. Prerequisite: 320 or permission of the instructor
- **350. Computer Architecture** (3) studies the theoretical and practical design principles of computer organization. The performance effects of pipelining, superscalar design, VLIW, and parallel processing are examined. Prerequisite: 211

- **360. Artificial Intelligence** (3) introduces students to the basic concepts and techniques of artificial intelligence and gives insight into active research areas and applications. Topics include knowledge-base systems, learning,
- knowledge-representation, natural language, expert systems, vision, and neural networks. Prerequisites: 320 or permission of instructor.
- 370. Computer Graphics (3) examines the basic principles of 3-dimensional computer graphics, animation, and virtual reality. Elementary mathematical techniques are used to position objects in three dimensional space. Geometric optics are used to determine how light bounces off surfaces and passes through transparent objects. Scene-description languages such as POV-Ray are examined. Software includes OpenGL, Java3D and Mathematica. Prerequisites: 320 and Mathematics 230
- **400. Programming Projects** (1) enable students to design, implement, and test a program of their own choosing. Proposed projects are approved by a faculty member who then meets with the student on a weekly basis. A final report is prepared and presented at the completion of the project. The course can be repeated once for credit. Prerequisite: permission of the instructor
- **450. Operating Systems** (3) examines the major components of several popular operating systems, including Linux and Windows. The relationships of operating systems to computer architectures are discussed and program assignments are used to provide experience with operating system construction. Prerequisites: 320, 350
- 480. Computer Networks (3) covers the fundamental computer science aspects of telecommunications. Topics include layered network architecture, data link protocols, routing and flow control mechanisms, and transport protocols. Also covered in the course are local area networks, wireless networks, Internet/Web development, and basic concepts in the modeling and analysis of protocols. Software packages are used to provide a basis for coursework and for configuring and simulating various network designs, under Linux and NT. Prerequisites: 310 and 320
- **490. Advanced Topics in Computer Science** (3) is a study of a specialized topic in the computing field such as Animation, Pattern Recognition, Networking, Theory of Computation, Alife, or advanced study of a particular language (such as Java, C++, Perl, or VRML). Prerequisite: permission of the instructor
- **495.** Computer Science Seminar (1) provides a weekly discussion of new advances in the field of computer science and their effect on society. Presentations are given by invited speakers, faculty, and students. The course can be repeated once for credit. Prerequisite: permission of the instructor

Modern Languages

(ESL, ESP, MODL, French, German, and Spanish)

Professor WEHAGE; Associate Professor MORRIS (Chair); Assistant Professors ALZATE, BUTLER; French Language Assistant KLEYNHOFF, German Language Assistant HÜTTINGER, Spanish Language Assistants CEBALLOS, DEL CERRO

A language major can open doors to careers in education, business, communications, translating, interpreting, law, and government.

Majors are offered in three world languages: French, German, and Spanish. Foreign language majors are required to study abroad in the respective target culture during their undergraduate program. To this end the department has affiliations with universities in Argentina, France, Germany, Mexico, Puerto Rico, Quebec, and Spain through study abroad programs of Muskingum University and the ECC International Exchange Program. Summer study programs are offered on the campuses of our partner universities in France, Germany, Latin America, Quebec, and Spain. Students wishing to teach English overseas or domestically to speakers of other languages may complete a minor in Teaching English as a Second Language (TESL).

Foreign languages are an important part of the liberal arts experience. The department encourages students majoring in other fields to study a language relevant to their career or personal interests. The International Business and International Affairs majors integrate language study and other fields into an interdisciplinary program. Recent graduates have pursued careers in teaching, translating, global human resource management, international relief work, accounting, and law.

The department offers teacher licensure in French, German, and Spanish. Students intending to teach should consult the education department for licensure requirements. Completion of licensure requirements may take 8 semesters in addition to student teaching.

All language students have access to the Morehead Language Laboratory, computerized language-learning center with multimedia and Internet capabilities.

Many language learners choose to live in the French, German, or Spanish language houses. The houses offer an immersion experience and facilitate contact with native speakers.

Language Assistants who are native speakers of French, German, and Spanish provide intensive small-group tutoring and participate in the cultural activities of the department.

The Modern Language Department aids students in determining the level at which they should begin their college language study. Students with three or more years of high school French, German, or Spanish usually begin at the intermediate level (211).

Students interested in a language major should contact the department chair at the earliest opportunity to ensure fulfillment of all requirements for the major. For additional information, please consult the French program web site at http://muskingum.edu/~modern/French/Information.html , the German program web site at http://muskingum.edu/~modern/germanstudies.html, and the Spanish program website at

http://muskingum.edu/~modern/Spanish/Information.html

Teacher licensure

Multi-age foreign language French, German, and Spanish pre-K through 21 is offered. Teacher licensure candidates must meet the requirements of Muskingum University and the Ohio Department of Education for teacher licensure. Contact the education department on campus for specific course

requirements. Licensure candidates are required to maintain a minimum average GPA of 2.5 in their language course work, earn a minimum grade of B- in MODL 397 Methods in Teaching Foreign Languages, and pass the content area of the PRAXIS II exam before student teaching. Completion of requirements may take 8 semesters in addition to student teaching.

English as a Second Language and Teaching English as a Second Language (ESL)

Non-native speakers of English may take credit bearing and non-creditbearing courses to assist them in improving their English language skills. (See the chapter on Admission for a description of the English Support Program.)

Students wishing to teach English overseas or domestically to speakers of other languages may complete a minor in Teaching English as a Second Language (TESL). Recent graduates have taken English teaching positions in France, Japan, and Korea.

French Major (33 hours beyond 112)

Requirements:

Study Abroad, 123, 431, one course in another foreign language at the appropriate level, Enrollment in French Table (251) expected every semester, required when not enrolled in a French course; 2 hours applied to major or minor.

No more than one upper level French course taught in English is allowed to count toward major requirements.

German Major (33 hours if started at 112 or 211; 37 hours if started at 111) Requirements:

Study Abroad, 123, 431, one course in another foreign language at the appropriate level, Enrollment in *Mensa* (251) expected every semester, required when not enrolled in a German course; 2 hours applied to major or minor.

No more than one upper-level German course taught in English is allowed to count toward major requirements.

Spanish Major (33 hours beyond 112)

Requirements:

Study Abroad, 123, 431, one course in another foreign language at the appropriate level, Enrollment in *La Mesa* (251) expected every semester, required when not enrolled in a Spanish course; 2 hours applied to major or minor.

No more than one upper-level Spanish courses taught in English is allowed to count toward major requirements.

French, German, or Spanish Minor (17 hours)

Requirements:

123, 300-level course

Teaching English as a Second Language minor (16 hours)

Requirements:

English 361

Modern Language 200, 300, 397

French/German/ Spanish 211 or completion of another college course, at or above the intermediate level, taught in a non-native language

Placement

Students with fours years of study in high school language are not permitted to take the beginning-level (111) language classes for graduation credit. Students with three years of high school language usually begin on the intermediate level (211). The Modern Language Department aids students in determining the level at which they should begin their college language study. Native speakers of a foreign language who wish to enroll in a course in their native language are encouraged to enroll in an upper-level literature or culture course. Such students should seek the advice of the instructor or the department chair if they have questions about which course to take. Students interested in a language major should contact the department chair at the earliest opportunity to ensure fulfillment of all requirements for the major.

Course Offerings

French

- **111, 112. Beginning French I, II** (4, 4) present basic knowledge of the French language, concentrating on the development of listening, speaking, reading, and writing skills. Selected aspects of French culture are studied. See placement above.
- **123. Masterpieces of French Literature in Translation** (3) taught entirely in English, the course introduces basic literary concepts and explores themes and movements of French literature from the seventeenth to the twentieth centuries. Prerequisite: English 121
- **211, 212. Intermediate French I, II** (4, 4) review basic structures and explore more complex aspects of the French language. Students refine their reading, writing, listening and speaking skills while exploring themes and issues in French and Francophone cultures. Prerequisite: 112 or its equivalent
- **240.** Business French (3) introduces basic concepts of business communication in the French-speaking world. Topics include finance, economics, marketing, and intercultural awareness. Prerequisite: 212, its equivalent, or permission of instructor
- **251.** La Table Française (1) offers the opportunity to practice conversational French in an informal setting. Activities are designed to encourage students to express themselves creatively in French. The course may be taken up to three times for credit, but applied to the major only twice. Prerequisite: 111 or its equivalent

- **301.** Advanced French: Conversation and Pronunciation (3) emphasizes listening and speaking skills. Students improve their comprehension and speech through laboratory exercises, class discussions, and other activities. Prerequisite: 212 or its equivalent
- **302.** Advanced French: Grammar and Composition (3) is a writing course that focuses on writing for a number of purposes, including essays, correspondence, narratives, and literary analysis. An overview of French grammar is included. The course may be taken twice for credit. Prerequisite: 212 or its equivalent
- **303. Survey of French Literature** (3) introduces major literary movements, principal writers, and outstanding works of French literature in their historical contexts beginning with the sixteenth century. Prerequisite: 302 or permission of instructor
- **304. Survey of French and Francophone Literatures** (3) surveys contemporary French-language literatures and their cultural contexts in French-speaking Africa, North America, and the Caribbean as well as in France. Prerequisite: 302 or permission of instructor
- **325. Topics in French Civilization** (3) explores aspects of French civilization and culture, including history, religion, the arts, politics, and gender. The course may be repeated for credit as the subject matter changes. Prerequisite: 212, its equivalent, or permission of instructor
- **350. Survey of French Cinema** (3) provides an overview of French and Francophone cinemas starting with the origins of cinematic art. The course examines landmark film classics as well as a selection of contemporary Frenchlanguage films. The basic vocabulary and concepts of cinematography are taught in order to give students tools for an in-depth analysis of the films. (Taught in English.) Prerequisite: English 121
- **360. Topics in French Language and Culture** (1-3) provide an opportunity to study a linguistic, literary, or cultural topic related to the French-speaking world. Courses in topical areas not offered in the regular curriculum may be offered on a rotating basis. The course may be repeated for credit as subject matter changes. Prerequisite: sophomore standing and permission of instructor
- **431. French Culture Seminar** (3) provides the advanced student the opportunity for in-depth study of an aspect of French or Francophone culture, which may include: literature, art, cinema, business culture, or another approved topic. The course serves as a capstone for the French major. Prerequisite: two French courses numbered above 302, at least one of which is taught in French, or permission of instructor

German

111, 112. Beginning German I, II (4, 4) present a basic knowledge of the German language, concentrating on the development of listening, speaking, reading, and writing skills. Selected aspects of German culture are studied. See placement above

- **123. Masterpieces of German Literature in Translation** (3) taught entirely in English, introduces authors of the eighteenth, nineteenth, and twentieth centuries. Movements and periods examined include: the Enlightenment, Storm and Stress, Classicism, Realism, Naturalism, Impressionism, Expressionism, Surrealism, and post-war literature. Prerequisite: English 121
- **211, 212. Intermediate German I, II** (4, 4) review basic structures and explore more complex aspects of the German language. Listening, speaking, reading, and writing skills are stressed and short literary works and aspects of contemporary German life are introduced. Prerequisite: 112 or its equivalent
- 240. Business German (3) concentrates on the vocabulary of business in German-speaking settings, with emphasis on reading, writing, translating, and fundamental oral communication skills. The course examines import/export; finance; marketing and intercultural awareness. Prerequisite: 212, its equivalent, or permission of instructor
- **251. German Table** (1) offers the opportunity to practice conversational German in an informal setting. Activities are designed to help students use the language creatively. The course may be taken three times for credit but applied to the major or minor only twice. Prerequisite: 111 or its equivalent
- **301. Advanced German:** Conversation and Pronunciation (3) emphasizes listening and speaking skills. Students improve their comprehension and speech through laboratory exercises, class discussions, and other activities. Prerequisite: 212 or equivalent
- **302. Advanced German:** Grammar and Composition (3) emphasizes refinement of writing skills and good usage in German. Given different contracts, the course may be taken twice for credit. Prerequisite: 212, its equivalent, or permission of instructor
- **303. From the Middle Ages through the 19th Century** (3) introduces the student to the major authors of German literature from the Middle Ages through the 19th century. Representative works are read in chronological order to foster a sense of literary history. (Taught in English)
- 304. From Expressionism to Post War Literature (3) examines representative authors of the early 20th century, the literary resistance in the Third Reich, exile literature, and the emergence of a new German literature after 1945. Prerequisite: 302 or permission of instructor
- **325. Topics in Contemporary German Society** (3) is a study of modern German culture and civilization examining some or all of the following: history, the arts, literature, politics, press, cinema, advertising, and changing gender roles and social structures. The course may be repeated for credit as the subject matter changes. (Taught in English)

- **350. Modern German Cinema** (3) taught entirely in English, the course introduces the development of contemporary German cinema, its history, and its forms of representation. It focuses on the works of major German film directors, treating themes that include the Third Reich, Germany after WWII, and gender roles. The course may be repeated for credit as the subject matter changes. Prerequisite: English 121
- **360. Topics in German Language and Culture** (1-3) provides an opportunity to study a linguistic, literary, or cultural topic related to the German-speaking world. Courses in topical areas not offered in the regular curriculum may be offered on a rotating basis. The course may be repeated for credit as subject matter changes. Prerequisite: sophomore standing and permission of instructor
- **431. German Culture Seminar** (3) provides the advanced student an opportunity to study in depth an aspect of Germanic culture, which may include: literature, art, cinema, business culture, or another approved topic. The course serves as a capstone for the German major. Prerequisite: two German courses numbered above 302, at least one of which is taught in German, or permission of instructor

Spanish

- **111, 112. Beginning Spanish I, II** (4, 4) present a basic knowledge of the Spanish language, concentrating on the development of listening, speaking, reading, and writing skills. Selected aspects of Hispanic culture are studied. See placement above.
- **123. Masterpieces of Hispanic Literature in Translation** (3) taught entirely in English, the course includes a variety of literary genres from a cross-section of Hispanic countries. Emphasis is on significant literary works ranging from the earliest to the most modern. Prerequisite: English 121
- **211, 212. Intermediate Spanish I, II** (4, 4) offer a systematic review of Spanish grammar, together with the refinement of listening, speaking, reading, and writing skills. Included are readings of literary or cultural significance. Prerequisite: 112 or its equivalent
- **240. Business Spanish** (3) introduces the language and culture of business in a Hispanic context. Topics include marketing, banking, accounting, trade, business communication, and the role of government. Prerequisite: Spanish 212, its equivalent, or permission of the instructor
- **251.** La Mesa de Español (1) is a weekly meeting designed to increase or maintain fluency and to expand vocabulary. The course may be taken up to three times for credit but applied to the major or minor only twice. Prerequisite: 111 or its equivalent

- **290. Spanish for Criminal Justice** (3) is a Spanish language course offered to Spanish students in Criminal Justice and related fields. This course is intended to expand speaking and listening skills related to criminal justice as well as to promote a deeper understanding of Spanish-speaking communities in the United States from a socio-cultural point of view. Prerequisite: Spanish 212, its equivalent or permission of the instructor. See also CRMJ 290.
- **301. Advanced Spanish:** Conversation and Pronunciation (3) emphasizes listening and speaking skills through laboratory practice, class discussion, and other activities and includes a selected grammar review. Prerequisite: 212, its equivalent, or permission of the instructor
- **302.** Advanced Spanish: Grammar and Composition (3) combines a writing course with a review of Spanish grammar. Given different contracts, the course may be taken twice for credit. Prerequisite: 212, its equivalent, or permission of instructor
- **303. Panoramas of Hispanic Literature I** (3) introduces major literary movements, principal writers, and outstanding works of Spanish peninsular literature. Prerequisite: 302 or permission of instructor
- **304. Panoramas of Hispanic Literature II** (3) introduces the major literary movements, principal writers and outstanding works of Latin American and literatures by Hispanics in the United States. Prerequisite: 302 or permission of instructor
- **325.** Hispanic Civilization (3) explores the geographic, ethnic, and cultural diversity of the Spanish-speaking world including the Hispanic heritage of the United States. The course may be repeated for credit as the subject matter changes. Prerequisite: 212, its equivalent, or permission of instructor
- 350. Hispanic Cinema (3) covers Hispanic Cinema in all of the Spanish-speaking regions: Spain, Latin America, and Hispanics in the U.S. The history of Hispanic cinema is first studied through the development of Spain's major directors from BuZuel to Almodóvar. This portion of the course establishes an understanding of cinematic techniques and narrative structure which will then be applied to films from a variety of Latin American countries and Hispanic communities. Common themes, such as socio-political structures, repression, gender, and artistic expression, unify and direct the study of cultural contents. Taught in English.] Prerequisite: English 121
- **360. Topics in Hispanic Language and Culture** (1-3) provides an opportunity to study a linguistic, literary, or cultural topic related to the Spanish-speaking world. Courses in topical areas not offered in the regular curriculum may be offered on a rotating basis. The course may be repeated for credit as subject matter changes. Prerequisite: sophomore standing and permission of instructor

431. Hispanic Culture Seminar (3) provides the advanced student an opportunity to study in depth an aspect of Hispanic culture, which may include: literature, art, business culture, or another approved topic. The course serves as a capstone for the Spanish major. Prerequisite: two Spanish courses numbered above 302 (one of which must be 303 or 304) or permission of instructor.

Modern Language

- **200.** Cross-Cultural Communication (3) examines major factors affecting communication across cultures, such as the varying concepts of time, space, and the individual's place in society. The course explores how those concepts are manifested in areas of language and social interaction, including speech acts; contrastive rhetoric; decision-making and conflict resolution. The phenomena of cultural adjustment, culture shock, and re-entry are also addressed.
- **300.** Teaching English as a Second Language Materials and Media (3) explores the field of Teaching English as a Second Language from the perspective of materials and media resources utilized in different instructional approaches. While relating to general theories from the field of Second Language Acquisition, the course focuses specially on their application within the ESL context.
- **360. Topics in Foreign Language and Culture** (1-3) provides an opportunity to study a topic of interest related to modern languages and cultures. Courses in topical areas not offered in the regular curriculum may be offered on a rotating basis. The course may be repeated for credit as subject matter changes. Prerequisite: sophomore standing and permission of instructor
- 397. Methods in Teaching Foreign Languages (3) deals with the theory, methods, and techniques of foreign-language teaching at the pre-K through 21 levels. Does not count toward required hours for language majors. [Contact department chair for schedule of offering].

ESL/ESP

ESP 080. Intermediate ESL (6) places initial emphasis on the development of English language skills for everyday needs, but moves progressively into more academic functions. Students progress from passive to active language use. The components of the course include reading and study skills; speaking and listening activities; and grammar and composition. Grade does not count in GPA. Credit does not count in minimum hours toward a degree.

ESP 082. Advanced ESL (3) is intended for students at a high-intermediate to advanced level of English proficiency and focuses on language skills needed for academic purposes. Students successfully completing this course will be able to give an oral, critical report; write a short, formal paper; and respond in essay form to questions related to a lecture. Grade does not count in GPA. Credit does not count in minimum hours toward a degree.

ESP 100. Advanced ESL Writing (3) is intended for students at an advanced level of English proficiency and focuses on writing skills needed for a liberal arts education. Samples of effective writing are studied with accessibility to culturally diverse students in mind. Students write essays of narration, description, exposition, classification, and argumentation. Prerequisite: Permission of instructor and either 082 or TOEFL 500

Molecular Biology

Advisors, Associate Professors OSUNSANYA, PERERA (Director)

The molecular biology major is intended for students whose interests lie in the exciting interface between biology and chemistry. Molecular biology is the basic science that leads to an understanding of the molecular processes of life, in terms of the properties and functions of molecules of which living cells are made. Therefore, molecular biology as a major requires a strong interdisciplinary background in biology, chemistry, physics and engineering, and mathematics.

Students graduating with the molecular biology major would be well-prepared for entry into the health professions, graduate school in biochemistry, molecular biology, and many areas of the biological sciences, and for jobs in the biotechnology industry as well as genetic counseling and forensic lab positions.

For additional information please consult the molecular biology department's web site at http://muskingum.edu/~molecul/frames/intropage.htm

Molecular Biology Major (70 hours)

Requirements:

MBIO 211, 411, 417, 418 BIOL 107, 112, 226, 306, 312, 375 CHEM 111, 112, 213, 214, 315, 418 CPSC 110 or 111 MATH 190, 200 PHEN 121, 122

BIOL 336, statistics and computer science courses are strongly recommended.

It may be possible for students to also earn a major in biology with 5 additional hours or in chemistry with 12 additional hours.

Course Offerings

211. Topics in Molecular Biology (1) presentation and discussion of Molecular Biology topics of current interest and importance. This is a seminar-style course team taught by the molecular biology faculty and provides the opportunity for students to gain an understanding of the field through general readings as well as the recent literature. May be repeated once for credit.

411. Topics in Molecular Biology (1) a seminar-style course, team taught by the molecular biology faculty, examines in depth, through readings, discussions and presentations, important topics in the filed. Molecular Biology majors must take the course for at least one credit. May be taken for additional credit. Prerequisite: 211, Biology 375, Chemistry 214, 315

- **417. Molecular Biology Seminar** (2) involves library research in a molecular biological topic, related to the research to be conducted in 418. The course also features student oral presentations and a written paper related to the library and lab research. Prerequisite: 211, Biology 375, Chemistry 214, 315
- **418. Research in Molecular Biology/Internship** (4) students may satisfy this requirement by conducting lab research in molecular biological problems in the science division, or with an internship which has the prior approval of the molecular biology faculty. Prerequisite: 417

Music

Distinguished Professor W. SCHLACKS (Chair); Professors J. ALESANDRINI, R. JONES; Associate Professors SCHUMANN, ABEYARATNE; Assistant Professor WILCOX-JONES; Instructor M. SCHLACKS

The study of music leads to an understanding of the aural art. The department is also committed to being a model liberal arts music program with the goal of developing the whole musician through offerings in musicology, music theory, applied music lessons, and performance ensembles. Muskingum University is an accredited institutional member of the National Association of Schools of Music. The department offers majors in music and music education, and a minor in music.

Students are encouraged to join any of the many performance ensembles, each of which is open (some by audition) to all students. In addition, Choral Society, the Southeastern Ohio Symphony Orchestra (SEOSO), and the Muskingum Valley Symphonic Winds (MVSW) are unique and rewarding partnerships between Muskingum University and the surrounding regional community. SEOSO provides the opportunity for performance with a full orchestra and is open to students by audition as is the MVSW; Choral Society requires no audition.

Students interested in the music or music education major should contact the department chair at the earliest opportunity to ensure fulfillment of all requirements for a major in music.

For additional information please consult the music department's web site at http://www.muskingum.edu/%7Emusic/ as well as the department's *Major/Minor Handbook*. The liberal arts major in music is designed to give students an overall education in music (within a liberal arts curriculum) and possible areas of emphasis include: Commercial Recording, Commercial Voice, Composition, Jazz, and Performance. These are areas of emphasis, <u>not</u> professional degree programs.

The Major in Music Education is a professional degree program that leads to licensure for teaching in Ohio, grades pre K through post 12 after successful completion of the curriculum.

Music major (48-49 hours)

Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration), 211, 212, 215, 216, 295, 310, 321, 322, 445

8 hours of applied study in one area

8 hours in the appropriate major ensemble

8 semesters of 100, 300

Junior qualifying exam (assessed after 212)

Music education major (76-77 hours) Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration), 181, 211, 212, 215, 216, 281, 282, 284, 285, 295, 310, 314, 321, 322, 371, 372, 382, 383, 384, 445, 482, 483 Education 110, 112, 314, 330, 335, 413, 461, 464, 466 6 semesters of the appropriate major ensemble and one semester in an ensemble of a medium dissimilar from the student's primary area of applied study 7 semesters of 100, 300 Junior qualifying exam (assessed after 212) *Music major with an emphasis in commercial recording* (48-49 hours) Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration), 211. 212, 215, 216, 295, 310, 321, 322, 445 4 hours of applied study in one area 4 hours of applied study in commercial recording (344) 2 hours of applied study in electronic studio (143-3) 8 hours in the appropriate major ensemble 8 semesters of 100, 300 Junior qualifying exam (assessed after 212) *Music major with an emphasis in commercial voice* (49 hours) Requirements: 111, 112, 115, 116, 140, 211, 212, 215, 216, 295, 310, 321, 322, 445 2 hours of 242, Singers Reading Lab 4 hours of applied study in one area 4 hours of applied commercial voice (342) 8 hours in the appropriate major ensemble 8 semesters of 100, 300 Junior qualifying exam (assessed after 212) *Music major with an emphasis in composition* (48-49 hours) Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration), 211, 212, 215, 216, 295, 310, 315, 321, 322, 445 2 hours of applied study in one area 8 hours of applied study in composition (145, 345) 2 hours of applied study in electronic studio (143-3) 4 hours in the appropriate major ensemble 8 semesters of 100, 300 Junior qualifying exam (assessed after 212) *Music major with an emphasis in jazz* (48-49 hours) Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration), 211, 212, 215, 216, 295, 312, 310, 322, 445 8 hours of applied study in one area (2-4 in formal, traditional; 4-6 in jazz) 1 hour of applied study in electronic studio (143-3) 8 hours in the appropriate major ensemble 2 hours in Jazz Improvisation (153-10)

8 semesters of 100, 300

Junior qualifying exam (assessed after 212)

Music major with an emphasis in performance (48-49 hours)

Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration), 211, 212, 215, 216, 295, 310, 321, 322, 445

8 hours of applied study in one area

1 hour of applied study in pedagogy and performance (311)

1 hour of applied study in repertoire (309)

8 hours in the appropriate major ensemble

8 semesters of 100, 300

Junior qualifying exam (assessed after 212)

Music minor (18-19)

Requirements: 111, 112, 115, 116, 140 (for students with a vocal concentration)

4 hours of applied study in one area

4 hours in the appropriate major ensemble

4 semesters of 100, 300

(Those seeking the minor for early childhood licensure add 382)

Course Offerings

100; 300. Performance Seminar (0) concentrates on the skill of performance. Also included in the course is the continuous development of the critical listening skills needed for a music major or minor. Music majors and minors who have course work still remaining must register for 100 or 300.

- **101.** Fundamentals of Music Theory (3) is a course designed to introduce the general college student to music reading and music theory including those structures of notation and the basic elements: intervals, scales, meter, and rhythm. The course includes basic theory, ear training, and keyboard harmony and can be a preparatory course for the Materials of Music sequence.
- 111. Materials of Music I (4) introduces students to the fundamentals of music, those structures of notation and the basic elements: intervals, scales, and meter; rhythmic, melodic and harmonic progressions; and studies in part writing. In addition, this course will introduce students to an overview of music literature in order to provide an understanding of the relationships among various styles of music. Prerequisite: Departmental placement exam
- **112. Materials of Music II** (4) is a continuation of 111. Prerequisite: MUSC 111 or instructor consent
- 115. Aural Skills I (1) studies music based on the structure and aural recognition of intervals; meter; and rhythmic, melodic and harmonic progressions, through solfeggio; ear training and written dictation; analyzes structure and recognition of tertian harmony through keyboard application.
- 116. Aural Skills II (1) is a continuation of 115. Prerequisite: MUSC 115 or instructor consent
- **121. Introduction to Music** (3) is a survey course designed to introduce the general college student to aspects of music, music creating, and a broad spectrum of music literature and styles.

- **140. Voice Class** (1) introduces vocal students to the art of singing: vocal production, physiology, maintenance of the vocal instrument, diction, International Phonetic Alphabet, and performance practice. Required for first year vocal majors and minors, and open to all students.
- **181. Introduction to Music Education** (2) provides an overview of the theories, methodologies, and philosophies of music education from 1700 to the present.
- **190. Piano Class I** (1) is a study of the basic keyboard skills necessary for careers in music. The course uses the piano laboratory system.
- 191. Piano Class II (1) is a continuation of 190.
- **211. Materials of Music III** (4) is a continuation of 112. Prerequisite: MUSC 112 or instructor consent
- **212. Materials of Music IV** (4) is a continuation of 211 and includes form and analysis and compositional techniques. Prerequisite: MUSC 211 or instructor consent
- 215. Aural Skills III (1) is a continuation of 116. Prerequisite: MUSC 116 or instructor consent
- **216. Aural Skills IV** (1) is a continuation of 215. Prerequisite: MUSC 215 or instructor consent
- **242. Singers Reading Lab:** provides the vocalist the practical study of sight-singing in popular commercial vocal styles. Prerequisites: Music 212, and applied vocal studies, (minimum 2 semesters) or permission of instructor
- **281. Music Education:** Woodwind Class and Methods (2) provides practical study of the woodwind instruments with materials and methods of teaching.
- **282. Music Education:** String Class and Methods (2) provides practical study of the string instruments with materials and methods of teaching.
- **284. Music Education:** Voice Class and Methods (2) provides practical study and application of singing and the use of the voice with materials and methods of teaching.
- **285. Brass and Percussion Class and Methods** (2) provides practical study of the brass and percussion instruments with materials and methods of teaching.
- 290. Piano Class III (1) is a continuation of 191.
- 291. Piano Class IV (1) is a continuation of 290.
- **295. Piano Proficiency** (0) is a test of a student's performance skills and is both a departmental requirement and a national standard. Enrollment, with a grade of Satisfactory, is noted on the transcript upon notification by the department chair.

- **301; 302; 303. Topics in Music** (1-3) provides the advanced student an opportunity to study selected topics in music. The course may be repeated as subject matter changes. Examples of emphases could be composition, arranging, or marching band techniques. Prerequisite: 212
- **310.** Excursions in World Music (3) is a survey course of music literatures of peoples and areas throughout the world. Emphasis is placed on the relationship of the music within the culture of the people.
- 312 Jazz Theory/Arranging (2) introduces the jazz student to fundamental theoretical practices for jazz performance. Included are basic elements of jazz/blues intervals, scales, melodic and harmonic progressions. This course will also introduce students to jazz ensemble arranging. Prerequisites: Music 212, 216, and/or consent of instructor
- **315. Instrumentation** (2) is a study of scoring techniques for instrumental ensembles and for band, choir, and orchestra. Individual projects are performed by college students. Prerequisite: MUSC 212 or instructor consent and successful completion of the Junior Qualifying Exam
- **321. Music History I** (3) is a detailed study of music from antiquity through Mozart. Prerequisite: MUSC 212 or instructor consent and successful completion of the Junior Qualifying Exam
- **322. Music History II** (3) is a detailed study of music from Beethoven through the present day. Prerequisite: MUSC 212 or instructor consent and successful completion of the Junior Qualifying Exam
- **371. Conducting I** (2) is the introductory course to conducting a music ensemble. Emphases are on conducting patterns, left hand technique, and leadership in the art of creating a musical performance. Prerequisite: MUSC 212, or instructor consent and successful completion of the Junior Qualifying Exam
- **372. Conducting II** (2) is the advanced course in conducting a music ensemble. Emphases are on rehearsal, visual representation of the aural score, analysis of performance problems, and performance and pedagogical literature. Prerequisite: MUSC 371
- **382. Music Education: Teaching General Music** (2) focuses on methods, materials, objectives, skills, and instructional strategies for the development of basic musical concepts in the general music classroom in grades Pre- K-8. Specialized approaches of Dalcroze, Kodály, and Orff are studied; and music instruction in grades Pre-K-8 is observed. Prerequisite: MUSC 212 or instructor consent and successful completion of the Junior Qualifying Exam
- **383. Music Education: Teaching Vocal Music** (2) studies the methods, materials, objectives, and instructional strategies for the teaching of vocal and choral music in grades 4-12. Choral instruction in grades 4-12 is observed. Prerequisite: MUSC 212 or instructor consent and successful completion of the Junior Qualifying Exam

- **384. Music Education: Teaching Instrumental Music** (2) studies the administration and teaching of instrumental music in the schools (4-12) and the teaching of general music in grades 9-12. Instrumental music instruction in schools is observed. Prerequisite: MUSC 212 or instructor consent and successful completion of the Junior Qualifying Exam
- **445. Senior Seminar: Recital** (1) is the capstone of the music or music education major. The student presents a recital in the applied area as well as an analytical paper about the music performed. For further information, see the *Music Major/Minor Handbook*. Prerequisite: a minimum of six semesters of applied study and instructor consent. All students presenting a senior recital must be enrolled in the appropriate corresponding applied music course during the semester of the recital.
- **482. Music Education: Professional Semester in Elementary Education** (5) involves students as practice teachers in an elementary school music program under the supervision and guidance of a cooperating teacher and Muskingum faculty member. Prerequisite: MUSC 382, 383, 384
- **483. Music Education: Professional Semester in Secondary Education** (5) involves students as practice teachers in a secondary school music program under the supervision and guidance of a cooperating teacher and Muskingum faculty member. Prerequisite: MUSC 382, 383, 384

Applied Music offers instruction to all students at all levels of difficulty in piano, organ, wind, string, or percussion instruments and voice. Students receive a series of 13 or 14 lessons per semester. Fees for applied music are in addition to the regular tuition charges. Students should consult with the appropriate instructor to determine course and section number.

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131; 331. Brass Instruments (1)
133; 333. Woodwind Instruments (1)
135; 335. String Instruments (1) (including guitar)
137; 337. Percussion Instruments (1)
141; 341. Voice (1)
143; 343. Keyboard (1) (including electronic studio)
145; 345. Composition (1;1)
309. Repertoire (1)
311. Pedagogy and Performance (1)
342. Commercial Voice (1)
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344. Commercial Recording (1)

Ensembles provide for the performance of music through group participation. Piano Accompanying meets together for study of methods and techniques and individually as accompanists for applied music and ensembles. A maximum of 10 hours of ensemble credit may count toward minimum graduation requirements. Students should consult with the appropriate instructor to determine course and section number.

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150; 350. Piano Accompanying (major ensemble) (0 or 1)
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151; 351. Southeastern Ohio Symphony Orchestra (major ensemble) (0 or 1)

153; 353. Wind and Percussion Ensemble (major ensemble), Marching/Athletic Band, Muskingum Valley Symphonic Winds (major ensemble), Directed Ensembles (0 or 1)

155; 355. Concert Choir (major ensemble), Musical Theatre Workshop, Praise Choir, Men's Chorus, Women's Chorus (0 or 1)

157; 357. Choral Society (0 or 1)

160; 360. Chamber Singers (0 or 1)

162; 362. Jazz Ensemble (0 or 1)

Neuroscience

Advisors, Professor NORMANSELL, Associate Professor BERGSTROM

The interdisciplinary neuroscience major is designed for students who are interested in understanding the relations between brain function, physiological events, subjective experiences, and behavior. Students are encouraged to reference the Muskingum University Website Neuroscience Program pages for updates and revisions regarding courses, course availability and major requirements http://www.muskingum.edu/~neuro/index.htm

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Major (57-59 hours)
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Requirements: Biology 107, 112, 226, 368

Chemistry 111, 112

Psychology 101, 151, 232, 281

Neuroscience 201 (taken 3 times), 305, 308, 407, 408, 409

Three of the following courses:

Neuroscience 386

Psychology 361, 381, 391

Biology 336, 375

Suggested electives:

Biology 213, 306

Chemistry 213, 214, 418

Computer Science 100 or 111

Mathematics 190

Physics and Engineering 101

Psychology 307, 351

Course Offerings

201. Topics in Neuroscience (1) is a seminar-style course team taught each semester by the neuroscience faculty, explores in detail a particular topic in the field through reading and discussion of recent published reports. Neuroscience majors must take the course three times.

305. Cognitive Neuroscience (3) is a junior level introduction to human cognition from neuroscientific and evolutionary perspectives. Students will begin by learning the historical and philosophical antecedents of the field. Students will then develop an understanding and appreciation for cognition and research methodology in the field; topics include perception, attention, memory, language, brain organization and plasticity, and the problem of consciousness. Prerequisites: Biology 112 and Psychology 281

308. Neuroscience Practicum (1) is a "real world" introduction to current research topics in the discipline. Students conduct several laboratory projects in this course. They also attend the annual meeting of the Society for Neuroscience or a regional neuroscience conference and report on their experience. Prerequisite: junior standing and permission of instructor

386. Neuropharmacology (4) provides basic explanations concerning how drugs act in the brain. The primary focus will be at the cell/molecular level with a lesser focus on the effects at the organismal level. Prerequisites: Biology 107, 112, 226, Chemistry 111, 112

407, 408, 409. Neuroscience Research I, II, III (3, 2, 2) a three semester sequence of courses in an independent study program designed to provide opportunities to practice inquiry and discovery while intensively investigating a fundamental problem in neuroscience. In the first semester, students search the current scientific literature related to their topic and prepare a review paper and a research proposal. During the senior year, the students conduct an original investigation and produce both a scientific paper and an oral presentation. They also present a poster at the Annual Science Poster Session.

Nursing

Professor HAYNES (Chair and Program Director); Associate Professor WILKINS: Assistant Professor ROBERTS: Instructor MILLER

The Department of Nursing offers two tracks to the Bachelor of Science in Nursing (BSN) degree. The pre-licensure (traditional) BSN track is designed for students coming from high school or transferring from other colleges or universities. Upon completion of this program, graduates with the BSN are eligible to apply to the Board of Nursing in the state where they plan to reside and to take the national licensure examination known as NCLEX-RN®.

The second track is a post-licensure BSN designed for RNs whose first nursing program was an associate degree or diploma. These adults will complete the RN to BSN completion track as outlined in the *Graduate and Continuing Studies Catalog*.

All students enrolled in nursing will be held to the policies and procedures contained in the *Nursing Department Student Handbook* as well as the *Muskingum University Student Handbook*. The *Nursing Department Student Handbook* contains additional policies and procedures required of these professional students.

The Nursing Department's purpose, mission, philosophy, organizational framework, and curriculum outcomes for both the pre-licensure and post-licensure tracks are published in the *Nursing Department Student Handbook*.

First-Year Pre-Nursing Students

Like many other high-quality nursing programs, Muskingum's program will admit first-year students to a pre-nursing curriculum based on high school credentials and scores on the ACT or SAT examinations. Because the capacity of the pre-nursing program is limited, some students who are eligible for admission to the College may not be admitted to the pre-nursing curriculum.

Pre-Nursing Curriculum

Students admitted to the pre-nursing curriculum must successfully complete a schedule of rigorous academic courses in order to apply for admission to the BSN program in the spring semester of their first year at Muskingum. It is important to note that students who meet the standards of the pre-nursing curriculum are assured admission to the BSN program. Standards for successful completion of the pre-nursing curriculum are:

- Completion of at least 24 semester hours in the first year at Muskingum with a cumulative grade point average of 2.5 or higher.
- Completion of the following courses with a grade of C or higher by the end of the first year:
 - Anatomy and Physiology I, Anatomy and physiology II, Biochemistry, English Composition, General Chemistry I, Introduction to Psychology

Bachelor of Science in Nursing Curriculum

Students admitted to the BSN program beginning in their second year at Muskingum will complete a three-year curriculum designed to prepare nurses whose mastery of the field of nursing is supported and enhanced by the critical thinking skills, breadth of knowledge, and commitment to high ethical standards which is in keeping with Muskingum University's goal of educating the whole person. The curriculum of the nursing program involves courses listed below, specific to the profession of nursing and to the strong core of liberal arts courses that has been the hallmark of a Muskingum education throughout the institution's history.

Major (99-101 hours)

Required support courses (45 hours)

Chemistry 111, 115

Biology 121, 122, 306, 312, 346

Psychology 208, 232

Philosophy 305

Psychology 101

Sociology 101, 345

Required lower-level nursing courses (15 hours)

NURS 210, 220, 230, 250

Required upper-level nursing courses (39-41 hours)

NURS 340, 350, 360, 370, 380, 430, 450, 460, 475, 480, 490

In addition to the major, the candidate for pre-licensure must complete Muskingum's Liberal Arts Essentials curriculum and earn a minimum of 130 semester hours.

Course Offerings

- **210. Nutrition across the Lifespan** (3) presents the chemistry, digestion, absorption and metabolism of nutrients. Nutritional needs of the individual throughout the lifespan will be examined. Application of nutritional needs to healthy individuals and those who have common, chronic diseases will be presented. Three theory hours. Prerequisites: CHEM 111, 115; BIOL 121,122; IDIS 100; ENGL 121
- 220. Health Assessments / Introduction to Nursing: Practice and Laboratory (4) is an introduction to the theoretical foundations of nursing and concepts of health promotion, caring, cultural competence, communication, critical thinking and the nursing process. The student learns basic health assessment skills, interviewing, and caring and cultural competency skills. Two theory hours, four clinical hours, two lab hours. Prerequisites: CHEM 111, 115; BIOL 121, 122
- **230. Pharmacology** (3) emphasizes pharmacodynamics and clinical uses of various classes of drugs in the healthcare setting. Drugs discussed include those used for hypertension, infection, cancer, pain and diseases of the cardiovascular, renal, respiratory, endocrine, gastrointestinal and central nervous systems. Three theory hours. Prerequisites: CHEM 111,115; BIOL 121, 122; IDIS 150; ENGL 121
- 250. Introduction to Clinical Practice in Medical/Surgical Nursing (5) deals with health promotion and restoration for adults. Includes concepts such as cultural competence, caring, ethical decision-making and leadership. The student uses the nursing process with adult patients and their families when experiencing health alterations involving the protective, nutrition/elimination, sensorimotor, gas transport/exchange and rest/comfort processes of the body. Three theory hours. Four clinical hours. Two lab hours. Prerequisites: CHEM 111,115; BIOL 121,122; IDIS 100; ENGLS 121

- **340.** Nursing Research (3) introduces the basic skills necessary to critique nursing research. Focuses on research methodology, interpreting research articles and evaluating the usefulness of findings for evidence-based nursing practice. Three theory hours. Prerequisites: 200-level NURS courses; PSYC 232.
- 350. Adult and Family Nursing (6) applies the concepts of health promotion and acute care chronicity to the adult patient in the acute care setting. The course more fully develops the concepts learned in previous clinical courses and applies these concepts in a variety of medical/surgical clinical settings with a culturally diverse population. Students will use critical thinking skills with nursing process technology when providing care to their patients and patients' families. Two theory hours; four clinical hours; two lab hours. Prerequisites: 200-level NURS courses; Prerequisite or co-requisite: BIOL 346
- 360. Mental Health and Family Nursing (4) applies the concepts of mental health to individuals and groups. The concepts to be emphasized include therapeutic communication, caring, cultural competence, evidence-based research practices and leadership/management affecting selected mental health alterations. Two theory hours; six clinical hours. Prerequisites: 200-level NURS courses
- 370. Pediatric Nursing of the Child and Family (4) applies the concepts of disease prevention, health promotion, acute care and chronicity to the infant, child and adolescent. Emphasis is on the study of physiological, developmental, environmental and genetic factors that influence the care of the child and family. Students will use critical thinking skills with nursing process technology in the care of children and their families. Two theory hours; two clinical hours. Prerequisites: 200-level NURS courses; NURS 340; BIOL 346
- **380. Parent/Newborn Nursing** (4) studies the parent/newborn experience. The student will use critical thinking skills in the application of the nursing process with expectant families, families in childbirth, postpartal families and neonates. Both healthy families and families at risk of health alterations will be studied. Two theory hours; six clinical hours. Prerequisites: 200-level NURS courses; BIOL 346.
- **401. Professional Nursing Transitions** (2) is a transition course for RN students entering the BSN program. The course provides an introduction to the mission, philosophy and curriculum design of the nursing program. Selected concepts for study include caring, cultural competence, nursing process, communication, teaching/learning process, nursing theories and evidence-based research. Two theory hours. Open to RN students only. Prerequisites: admission to nursing program, CHEM 115; BIOL 121, 122; ENGL 121
- **430. Perspectives in Global Nursing and Health** (3) provides an overview of major health problems from a global perspective. It identifies health priorities of the 21st Century, discusses how healthcare systems operate in different countries and provides examples of organizations that address global health issues. Three theory hours. Prerequisite: upper division status

- 450. Critical Care and Family Nursing (4) identifies interrelationships of physiologic and psychosocial factors in patients with complex multi-system impairment in critical care settings. Analysis of ethical decision making with use of advanced technology that affects human dignity. Emphasis on the caring nursing process and on cultural competence in working with patients and families having multi-system dysfunctions. Two lecture hours; four clinical hours; two lab hours. Prerequisites: 300-level NURS courses; BIOL 346
- 460. Community Health Nursing (4) focuses on the concepts of public health, epidemiology and community health nursing with emphasis on health promotion and disease prevention. An assessment of a rural community is completed. Cultural influences, chronic health problems, communicable diseases, disaster preparedness, health financing and environmental issues are examined in relation to community and family health practices. Health risks of individuals and families in the community are explored in terms of teaching/learning activities, caring ethics, nursing process and research through evidence-based practice. 2.5 theory hours; 4.5 clinical hours. Prerequisite: 300-level NURS courses or permission of instructor
- 475. Issues and Trends in Health and Nursing (2) examines the history and current status of the American healthcare system as it relates to social, economic, cultural, political and educational forces affecting nursing and healthcare. Focus is also on the role of the nurse in regard to professional, legal and ethical responsibilities. Nursing theories are discussed and analyzed in terms of applicability to nursing practice. The student will also prepare for career opportunities and credentialing issues. Two theory hours. Prerequisite: 200-level NURS courses or permission of instructor
- 480. Nursing Leadership/Management (4) Emphasizes the development of leadership skills in nursing practice. Organizational, leadership, management and change theories are examined. Opportunities are provided for socialization into the professional nursing role in healthcare agencies. Students are expected to function with a high degree of independence, use effective group/leadership skills and direct and/or provide safe, ethical care for groups of patients. Two theory hours; six clinical hours. Prerequisite: 300-level NURS courses or permission of instructor
- 490. Special Topics (1-3) focuses on the identification of complementary/ alternative healthcare therapies that are available to the healthcare consumer. Students will be able to discuss the origin, use and outcomes of complementary/ alternative therapies. They will examine legal/ethical issues related to the use of complementary/alternative therapies in current healthcare settings, and will identify research outcomes focused on complementary/alternative healthcare practices. One to three theory hours. Prerequisite: Upper division status

Philosophy See Religion and Philosophy.

Physical and Health Education See Education.

Physics and Engineering

Assistant Professors SELVI, TAYLOR (Chair), WILSON; Instructor SOTO-CABÁN

The department offers majors in engineering science, physics and physics education and supports the binary and pre-engineering programs. The department strives to employ students as tutors and assistants, offer on-site research and design experiences for students, expose students to the "real world" through guest speakers and field trips, assist students with securing summer research positions and internships, and assist students with their educational and career goals.

The engineering science curriculum is similar to a general engineering curriculum in that it provides a broad foundation in the fundamentals of engineering. The curriculum also incorporates elements of modern physics, material science, and computational science in preparation for working in areas where traditional science and engineering disciplines overlap. While the major in engineering science will not be accredited until the department graduates its first class in the spring of 2011, and has a successful site visit by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology (EAC/ABET) in the fall of 2011, accreditation (if granted) will be retroactive to the graduates of spring 2011. Graduates of the Engineering Science program offered by the Department of Physics & Engineering at Muskingum University will be:

- 1. prepared to engage in and recognize the need for life-long learning
- 2. broadly educated in the liberal arts by: understanding the foundations of knowledge and inquiry about nature, culture, self, and society; mastering core skills of perception, analysis, and expression; cultivating a respect for the truth; recognizing the importance and the diversity of historical and cultural contexts; and exploring connections among formal learning, citizenship, and service to our communities
- 3. broadly educated in the fundamentals of engineering, modern physics, computational science, and material science in preparation for working in areas where traditional science and engineering disciplines overlap
- 4.prepared to apply effectively, responsibly, and contextually their analytical, experimental, computational, and design knowledge and skills as participants in multi-disciplinary teams
- 5. prepared to compete for entry-level engineering positions and further their engineering education in graduate school

The physics curriculum begins by exposing students to a spectrum of topics ranging from Newton's laws of motion to the foundations of quantum mechanics and ends by refining these topics conceptually and mathematically. Since physicists eventually become preferentially oriented towards experimental, computational, or theoretical endeavors, the curriculum is designed to give students an opportunity to explore each of these orientations. The major in physics is designed to meet the needs of students who intend to continue their study of physics in graduate school, or pursue a physics-related career.

The physics education curriculum is designed for students seeking adolescent to young adult (grades 7-12) teaching licensure in physics. Students will be exposed to the spectrum of topics that are typically taught at the secondary level: classical and modern physics with some elements of engineering. Additionally, students will design a physics education research project and implement it during the senior capstone and student teaching experience.

In order to meet the learning objectives for engineering science, physics and

physics education majors and minors, students who receive credit through advanced placement, proficiency examination, or transfer credit may be required to complete additional coursework. See the Chair of Physics and Engineering for details. For additional information, please consult the Physics & Engineering department's web site at http://www.muskingum.edu/~physicseng/

Core requirements for the Physics and Engineering Science majors (62 hours)

PHEN: 110, 121, 122, 203, 210, 310, 320, 400, 490, 495

CHEM: 111, 112

CPSC: 111

MATH: 190, 200, 230, 310, 320 (automatic math minor)

Engineering Science Major (88 hours)

Core Requirements as listed above

PHEN: 235, 300, 330, 410, 420

ECON: 215

Moral Inquiry LAE Ethics elective

Students must take the Fundamentals of Engineering Exam in the last semester of their senior year.

Engineering Science Minor (34 hours)

PHEN: 110, 121, 122, 203, 330, and two of the following: 210, 235, 300,

310, 410 MATH: 190, 200

Physics Major (74 hours)

Core Requirements as listed above

PHEN: 340, 430

CPSC: 211

MATH: one of the following: 340, 350, 420, 430

Students must take the Educational Testing Service Major Field Test in Physics in the last semester of their senior year.

Physics Minor (32 hours)

PHEN: 110, 121, 122, 203, 210, 340

MATH: 190, 200, 230

Physics Education Major –AYA Physics Teaching Licensure (99 hours)

PHEN: 110, 121, 122, 203, 210, 235, 310, 490, 495

MATH: 190, 200, 230, 310 CHEM: 111, 112, 200

CPSC: 110

EDUC: 110, 112, 313, 330, 335, 394, 413, 451, 461, 464, 466

PSYC: 101, 308 SPC0: 200

Students must declare co-advisors from the Physics and Engineering and Education Departments to ensure that academic and teaching licensure requirements are met.

Course Offerings

- **101. Conceptual Physics** (4) is a conceptual based introduction to classical physics. Topics include mechanics, properties of matter, thermodynamics, waves, sound, electricity, magnetism, and optics. 3 hours of lecture and 2 hours of laboratory. Prerequisite: high school algebra
- **110. Introduction to Physics and Engineering** (2) is an introduction to the physics and engineering professions, engineering design, problem solving, and experimentation. 1 hour of lecture and 2 hours of laboratory. Co-requisite: CPSC 111 for Engineering Science and Physics majors and CPSC 110 for Physics Education majors.
- **121, 122.** Classical Physics I, II (4, 4) is for science and engineering majors: a calculus-based presentation of kinematics, mechanics, and thermodynamics in the first semester, followed by sound, light, and electromagnetism in the second semester. 3 hours of lecture, 1 hour of recitation, and 2 hours of laboratory. Recommended Co-requisites: MATH 190 for PHEN 121 and MATH 200 for PHEN 122
- **150. Introduction to Astronomy** (4) is an introduction to the science of astronomy and the scientific method. Topics include: the history of astronomy, light and matter, astronomical instruments, the solar system, stellar characterization, stellar evolution, and the interstellar medium. The course concludes with a brief survey of galaxies and cosmology. A weekly laboratory is complemented by outdoor observing. 3 hours of lecture and 2 hours of laboratory.
- **203. Modern Physics** (4) is a survey of 20th century physics: quantum mechanics with applications to nuclear, atomic, molecular, and solid state physics. 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 122 and MATH 200
- **210. Statics & Dynamics** (4) studies forces and moments that act on rigid bodies and the conditions that produce equilibrium and non-equilibrium. 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 121. Co-requisite: MATH 200
- 235. Electronics (4) is an introduction to electrical measurements, electric circuit theory, semiconductor devices and circuits, and analog and digital circuits. 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 122, MATH 200
- **300. Material Science** (4) examines the relationship between atomic structure, crystal structure, and microstructure of solids with their physical properties (mechanical, thermal, optical, electrical, and magnetic). 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 203
- **310. Optics** (4) studies the ray, wave, and photon nature of light and selected optical instruments. 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 203

- **320.** Thermodynamics (4) is the study of energy and its transfer between systems. Equations of state and the laws of thermodynamics will be examined and applied to macroscopic systems. 3 hours of lecture and 2 hours of laboratory. Prerequisites: PHEN 121, MATH 310
- **330. Principles of Design** (4) introduces engineering science students to the design process: formulation of a problem, creative approaches to solving the problem, analysis, materials selection, and economics. 3 hours of lecture and 2 hours of laboratory. Prerequisite: declared major or minor in Engineering Science or instructor permission
- **340.** Theoretical Physics I (3) introduces the Lagrangian and Hamiltonian formulations of mechanics and the formalism of quantum mechanics. 3 hours of lecture. Prerequisites: PHEN 210, 203, MATH 230
- **350. Special Topics in Physics and Engineering** (1-3) Prerequisite: declared major or minor in Engineering Science or Physics or instructor permission
- **400. Electromagnetics** (4) studies electricity, magnetism, and their interrelationships. Applications to the design and operation of electromagnetic components and systems will be emphasized. 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 122, MATH 320
- **410. Measurements** (4) is an introduction to basic transducers, which convert physical phenomena into an electrical signal, computer-controlled data acquisition, and data analysis. 3 hours of lecture and 2 hours of laboratory. Prerequisite: PHEN 235
- **420.** Fluid Mechanics (4) is an introduction to the fundamental principles and applications of hydrostatics and fluid flow. 3 hours of lecture and 2 hours of laboratory. Prerequisites: PHEN 210, MATH 320
- **430.** Theoretical Physics II (3) introduces statistical thermodynamics and elaborates on the formalism of electromagnetism. 3 hours of lecture. Prerequisites: PHEN 320, 400
- 490. Introduction to Senior Project (1) prepares students for their Senior Project by stepping them through the process of writing and presenting a proposal for a design or research project. Students are required to (1) periodically present their progress on preparing their proposal, (2) submit their finished proposal, and (3) present it to students in the Introduction to Physics and Engineering course. 1 hour of lecture. Prerequisite: senior status in the Engineering Science, Physics, or Physics Education programs 495. Senior Project (3) is the capstone course for the Physics and Engineering Science programs. Working as individuals or in teams in consultation with departmental faculty, students will execute the design or research project they proposed in the Introduction to Senior Project course. Students are required to (1) periodically present their progress on implementing their proposal, (2) present a poster that describes their project for the Homer A. Anderson Family Science Colloquium series, and (3) submit a final report for their project. Prerequisite: PHEN 490

Political Science

Associate Professor HUBER (Chair); Assistant Professors ARNOLD, KING

Political science has been defined by David Easton as the process "through which values are authoritatively allocated for a society." Harold Laswell has put this in more common language, stating that politics is "how we decide who gets what." Political science is concerned with processes, decision-making, power, organizations, and institutions. The discipline of political science studies these processes and institutions using insights, data, and methods from the disciplines of history, law, economics, sociology, and psychology.

The Political Science department offers classes in both the theoretical and practical modes of the discipline. Classes are divided into four main fields: American Politics, Public Administration and Policy, Comparative Politics, and International Relations. A political science major completes coursework across all four of these fields, but may also focus more intensively on one of the four. Our teaching approach emphasizes experiential and hands-on learning methods including in-class simulations, work with surrounding communities, internships, and career placement. Recent graduates have found employment in government and policy-oriented positions, worked on election campaigns, and continued on to graduate and law school. A political science major is well prepared to pursue careers in many public and private fields, including federal government, state and local government, education, business, journalism, and the law.

The department gives students access to a wide variety of activities, programs, internships, and other off-campus opportunities to enhance their education. Internships offer off-campus experience in practical matters. Muskingum University also maintains association with Drew University, which sponsors a United Nations Semester, a London Semester, and a European Community Semester. We also have a relationship with American University, which sponsors a Washington semester and programs in other world capitals. The Political Science department itself offers an active Model United Nations program, travel courses, and a pre-law program.

Students interested in pursuing a major in political science should contact the chair of the department. For more information, please see the departmental web site at http://www.muskingum.edu/dept/polisci/

Major (30 hours)

Core Requirements (15 hours): 111, 131, 211 or 251, 341, 491

Distribution (6 hours): one course from two of the following categories

American Government courses: 310, 311, 312, 313, 314, 315, 316, 317, 318, 319

Public Administration/Policy courses: 321, 322, 323, 325, 326

Comparative Politics courses: 331, 334 International Relations courses: 352, 354, 356

Electives (9 hours): From departmental offerings, may include one additional 200-level course

Minor (15 hours)

Requirements: 111 and 131 (and 9 hours from other department course offerings)

Course Offerings

- 111. American Political Systems (3) introduces students to the institutions, processes, and values that constitute the American Political system. In dealing with such topics as First Amendment Rights, Congress, the Presidency, Parties and Interest Groups, Bureaucracy, and Public Policy, some time is spent in examining select aspects of the social and political background to American politics.
- **131.** Introduction to World Politics: Understanding the Political World (3) provides the basic concepts in the study of politics in any society and an understanding of their interaction in the distribution of power and the processes of decision-making.
- 211. Introduction to State and Local Politics (3) examines the broad environment in which state and local governments function. Attention is given to the formal and informal structures of state and local political systems, to the nature of political activity by individuals and organizations within states and localities, and to the actions state and local political entities are taking (or failing to take) in important public policy areas.
- **251. International Relations** (3) introduces students to foundational concepts and dynamics in the field of international relations. Topics focus on the nature of interaction between political entities on the world stage, including states, IGOs, NGOs, and other entities. Topics to be covered include globalization and its consequences the nature of East-West and North-South relations, the international economic system, the causes and consequences of war, and the international paths to peace.
- **310.** US National Security (3) examines the nature of national and homeland security in the United States, including actors, institutions, and the impact of national security structures and behavior on the US and the world. Areas of concentration include the history of national security issues and concerns, changes in the post-9/11 world, homeland security issues, intergovernmental coordination and conflict, domestic and global implications of US policy, and both current and future challenges to US national security.
- **311.** Congressional Politics (3) provides an understanding of the organizational structure, membership, and various activities of the United States Congress, including how members are elected, the overall legislative process, and the impact of such internal factors as political parties and the committee system. Also examined are Congress' interactions with such external actors as the president, the public, and interest groups, and its role in various aspects of policy and politics.
- **312.** Constitutional Law I: Governmental Powers (3) focuses on the activity of the Supreme Court in interpreting the meaning of the Constitution through case law specific to the areas of governmental powers. After examining the powers and activities of the Court, specific areas of law will be examined. These include; powers and limitations of each branch, separation of powers, checks and balances, issues of federalism, taxing and spending powers, and economic powers.

- 313. Judicial Politics (3) focuses on the organization, behavior, and impact of the judicial system on American politics, policy, and culture. Attention is given to how judges are selected, the roles of state and federal court systems, civil and criminal court procedures, the powers of appellate courts, the impact of the courts on policy and political discourse, and outside influences on the courts, current issues of concern, and considerations of reform.
- **314.** Political Communication (3) focuses on how communication manifests itself through politics. Attention is given to mass media, especially television, in American politics, with comparisons to the nature, roles, and impact of mass media on politics in other countries. Emphasis is given to mass media as instruments of political communication and opinion leadership, and as tools of political influence and control.
- **315.** The Presidency (3) examines the role of the presidency in the American political system, including the electoral process, the power of the presidency, White House/executive branch organization and interaction, and the president's overall place in American society. Also examined are the president's external relations with such actors as Congress, the courts, and the American public, as well as an exploration of policy areas in which the president is involved.
- **316. Urban Politics** (3) focuses on the political and policy choices and constraints faced by America's cities. A theoretical base is established then utilized to assess cities in terms of the political, economic, and social issues they are confronting. The role of the private sector in the development of U.S. cities is stressed, as is the impact of the politics of race and ethnicity.
- **317.** Constitutional Law II: Civil Rights and Liberties (3) focuses on the activity of the Supreme Court in interpreting the meaning of the constitution through case law specific to the areas of civil rights and civil liberties. After examining the powers and activities of the Court, specific areas of law will be examined. These include; civil liberties (religion, speech, privacy, etc.), rights of the accused (search and seizure, due process, fair trial, etc.), and civil rights (equal protection, discrimination, etc.).
- **318.** Criminal Law (3) provides an overview of the basic concepts of crime definitions, criminal liability, elements of a crime, case precedents and the rights afforded to individuals under the law. Prerequisite: CRMJ 101. See listings under Criminal Justice 318.
- **319. Political Parties and Elections** (3) examines political parties found in democratic nations including multi-party systems with an emphasis on the case in the United States, and the meaning of parties for governing, political participation, and citizenship. Different election processes, election law, political finance, and the effects on outcomes are also studied.
- **321. Public Administration** (3) studies the structures and processes for formulating and implementing public policies. Emphasis is given to the role of the national-level bureaucracy. State and local managerial and administrative concerns are addressed broadly and through specific illustrative examples.

- **322. Public Policy** (3) establishes a framework for the policy cycle and applies it to selected policy concerns. The nature of public policy, making public policy, substantive policy issues, and policy analysis are explored.
- **323. Administrative Law** (3) provides an understanding of the legal concepts that define what has been called "the bureaucratic state." Students will examine the law governing the creation of, powers of, and limitations upon administrative agencies of all sorts.
- **325. Public Personnel Administration** (3) examines the environment of public employment. Differences between the public and private sector, the historical growth of the personnel system in the public sector, and topics in administration, staffing, and productivity are explored. Public sector processes for recruitment, selection, development, motivation, evaluation, compensation, and discipline are given particular attention.
- **326. Regional Planning** (3) introduces students to planning at the city level and offers a unique opportunity to directly apply what has been learned in the classroom. Students are exposed to the major ideas behind regional planning, including land use planning, MPDUs and regional coalitions. Must be taken the same semester as 381: Community Planning Workshop.
- **327. History of Environmental Politics** (3) explores the history of environmental policy in the United States by examining several case studies in contemporary policy from a historical perspective. Special emphasis is placed upon the skills of using historical evidence as a component of policy analysis. See listing under History 377.
- **331. Politics of Western Europe** (3) studies such states as the United Kingdom, France, Germany, and others in depth, with comparisons being drawn among them. The emphasis is on the distribution of power and the organization for governing in parliamentary, presidential, and related democracies.
- **334. Nationalism** (3) develops an understanding of nationalism and its effects in the world through reading and discussion of both theoretical explanations of nationalism and real-world case studies. The course includes studies of nationalist movements, such as in Europe, the Americas, Asia, and Africa.
- **341. Theory & Methods in Political Science** (3) surveys the development and basis of Political Science as a scientific academic discipline. An analysis of empirical theory and methodology as applied to the study of political behavior is undertaken. Students develop and practice skills in understanding and using qualitative and quantitative methodologies to describe, explain, and predict political phenomena.
- **342.** Ethical Issues in Politics (3) examines the ethical aspects to some of the difficult political issues facing the United States and the world community, including such topics as the influence of money on political systems, the role of ethics in addressing domestic social welfare issues, the moral aspects of humanitarian and economic development issues, and ethical concerns relating to issues of war and peace.

- 343. Social and Political Philosophy (3) considers theories of the nature and legitimacy of the state and its laws. Also deals with topics such as the rights and responsibilities of citizens, ethics in political decision-making, economic justice, punishment, race and gender oppression, political and cultural identity, and the value and meaning of democracy. See also Philosophy 343 and Sociology 335.
- **352. American Foreign Policy** (3) examines the actors, institutions, and the impact of foreign policy structures and behavior on the US and the world. Issue areas given significant attention include the history of AFP, issues of consensus and conflict, pre- and post-9/11 dynamics, inside and outside actors/influences, the impact of politics on policy, national and homeland security issues relating to foreign relations, and both current and future challenges of American foreign policy.
- **354. Politics of the European Union** (3) studies the role of the European Union and its effects on the member nations.
- **356.** War, Peace, and Security (3) looks at the causes and conduct of conflict, and ways to end wars and promote lasting, non-threatening peace.
- **366.** The Politics of Social Movements (3) explores social movements such as the women's liberation movement in the U.S., or the mothers of the disappeared movement in Chile- in various settings around the world as a means of understanding the dynamics of social movements in general.
- **372. Politics in Film** (3) uses popular films to introduce important political issues and processes to a broad set of students. Movies are complemented with readings that center discussion on the political issues that emerge from the films.
- **380. Topics: Off-Campus Study** (3) provides students with an off-campus structured, faculty-led learning experience in the U.S. or abroad. Instructor permission required
- **381.** Community Planning Workshop (3) provides students a hands-on opportunity to complete a project for a city or town. Students work as a group overseen by faculty completing a project in urban or regional planning, community development, and/or downtown redevelopment.
- **387. Internship in Political Science** (1-3) involves a supervised work-study experience in a political structure or environment outside the University. Supervised jointly from within the respective political entity and the Department, the internship may take place in a private organization or business if it deals directly with the organization's involvement with political or governmental affairs.
- **470. Topics in Political Science** (3) provide students with a semester-long study of a topic of interest under the direction of a departmental faculty member. Topical offerings provide an opportunity for intensive study in a field of interest to the student.

- **481. Student/Faculty Collaborative Research in Political Science** (3) Students work one-to-one with a faculty member on a professional project. The final project/paper will list both the faculty member and the student as co-authors. Students are expected to present their findings with the faculty member at a professional conference. Instructor permission required
- **491. Senior Seminar in Political Science** (3) involves an intensive research project reflecting the student's interest in a political topic and skills learned in studying political science. Each student works individually with a professor in completing the capstone project and also meets regularly within a group of all Political Science Senior Seminar students.

Psychology

Professor NORMANSELL (Chair); Associate Professors MEYER, STEVENSON; Assistant Professors BAKER, STAMBUSH; Visiting Assistant Professor KEHRBERG

Psychology is a science concerned with the study of behavior, brain organization and mental processes. It is a broad field that intersects with many disciplines, including the biological and social sciences.

Psychologists can be found in such settings as clinics, industry, hospitals, human service agencies, and schools. These professionals function as researchers, therapists, and counselors; consultants to a variety of business enterprises, including conservation, education and government; and behavioral scientists in the broad sense.

Muskingum's psychology department has outstanding facilities for both human and animal research. These facilities include individual research rooms, the Center for Child Development, which serves both pre-school and schoolage children, animal colony rooms, a surgery suite, various observation rooms with sound systems and one-way mirrors, a teaching laboratory with networked computerized workstations, as well as seminar rooms and classrooms. The department has equipment for study and research in all the major areas of psychological inquiry.

In addition, the department offers students the opportunity to gain experience outside the classroom. Departmental affiliations enable students to design internships and practica in substance abuse centers, hospitals, laboratories, mental health clinics, and programs for individuals with special needs, as well as the department's child development programs and departmental laboratories. Psychology majors work closely with department faculty and are encouraged to become active in research as they prepare to enter professions that make use of their newly acquired skills or as they make plans to enter graduate programs in a variety of disciplines.

For additional information please consult the psychology department's web site at http://www.muskingum.edu/~psych/

Major (34 hours)

Requirements: Core courses in sequence—101, 151, 232, 351, 493, 495 *Electives:* One course from each of the following perspectives (one of the four courses must include a lab):

Physiological/Comparative: 281, 361 (lab), 381 (lab), 391 Learning/Historical: 305 (lab), 307 (lab), 359 (lab), 407

Developmental/Social: 205, 308, 309, 321 Clinical/Applied: 271, 290, 363, 390 Double Majors: Students choosing to major in psychology and another department are required to do only one Senior Studies project, registering for Senior Studies in one of the departments and establishing contact with an advisor in the other. The project must be empirical in nature and satisfactory to both departments. A copy of the work is turned in to each department and both a poster and an oral presentation are made to the psychology department.

Minor (15 hours with at least one three-credit course at the 300-400 level)

Teacher licensure — integrated social studies, grades 7-12 (with a psychology major) Contact the education department for specific course requirements.

Course Offerings

- **101. Introduction to Psychology** (3) presents basic concepts in the scientific study of behavior including motivation, sensation and perception, learning, cognition, development, social, and personality.
- **151. General Experimental Psychology** (4) emphasizes fundamental concepts of research. Students conduct classic psychological experiments in perception, cognition, physiological, learning, and social psychology and write lab reports in APA (American Psychological Association) style. Includes a lab. Prerequisite: PSYC 101
- **205. Child Development** (3) presents a systematic study of physical, social, cognitive, and personality development from conception through the elementary school years. Emphasis is on learning different theoretical perspectives. Students are encouraged to complete the one credit course, 220: *Preschool Practicum* simultaneously. Prerequisite: 101
- **208.** Lifespan Development (3) is an overview of psychological theories and empirical research used in the study of human development to describe, understand, and explain development from conception to death. Emphasis will be placed upon normal growth and milestones achieved in the physical, cognitive, social and emotional systems.
- **220. Pre-school Practicum** (1) provides supervised experience in the application of psychological principles. Students work in the department's Center for Child Development four hours per week and participate in a variety of in-service training programs. Graded S/U
- **221. Infant and Toddler Practicum** (1) provides supervised experience in this application of psychological principles. Students work in an off-campus child care facility four hours per week (or 40 clock hours, depending on the placement) and participate in a variety of in-service training programs. Graded S/U

- **222. General Practicum** (1) provides supervised experience in the application of psychological principles. Students work in one of the department laboratories, an outside laboratory, a counseling center, a mental health clinic, or other human service agency. The course requires four hours of practical experience per week (or 40 clock hours, depending on the placement) and participation in a variety of in-service training programs. Graded S/U
- **232. Behavioral Statistics** (3) deals with experimental design, statistical analysis, and the mathematics of probability as they are related to the scientific analysis of behavior.
- **271. Industrial Psychology** (3) explores the application of psychological principles in business settings. Decision making, motivation, leadership, job satisfaction, and organizational conflicts are considered in light of learning, cognition, and personality. Prerequisite: 101
- **281.** Physiological Psychology (3) studies the basic principles of brain organization and function. Emphasis is placed on understanding the relationships between brain activity and behavior. Prerequisite: 101
- **290.** Theories of Personality (3) examines contemporary models used to describe, explain and predict people's behavior, thoughts, and emotions. Prerequisite: 101
- **305.** Cognitive Psychology (4) investigates mental processes related to the areas of perception, organization, retention, and subsequent use of stimulus information. Specifically, readings address the issues of perception, memory, attention, imagery, thinking, and problem solving. Includes a lab with experiments on computers. Prerequisite: 101, 151
- **307. Learning and Motivation** (4) considers the biological and acquired bases of drives and attempts to integrate these considerations into a study of the kinds of modifications of behavior that are labeled learning. Includes a lab. Prerequisite: 101, 151
- **308.** Adolescence and Youth (3) examines the period of adolescence within a sociocultural context. Emphasis is placed upon research that is concerned with current challenges and social problems. A major goal is learning about oneself. Volunteer service at a middle school or high school enhances students' classroom learning. Prerequisite: 101
- **309.** Adulthood and Aging (3) examines the biological, social, personality, and cognitive changes that occur during adulthood and later years of the human life span. The continuation of development processes in maturity is emphasized. Twelve hours of volunteer work in a nursing home or another program is required. Prerequisite: 101, one additional psychology class
- **321. Social Psychology** (3) examines psychological principles and concepts involved in causal attribution, social cognition, attitude formation and change, social influence, and interpersonal relationships. Prerequisite: 101 and one additional psychology course. See listing under Sociology 321.

- **351. Advanced Experimental Psychology** (4) gives the student experience in applying the scientific method to design and methodological issues in psychology. Emphasis is placed on reading and critiquing research articles and conducting an independent research project. Includes a lab. Prerequisite: 151, 232
- **359. Psychological Testing** (4) provides the knowledge and skills necessary to create a psychological test and evaluate its effectiveness. Test construction, reliability, and validity are explored. Popular measures of personality, intelligence, and attitudes are demonstrated and examined. Includes a lab. Prerequisite: 101, 232
- **361. Sensation and Perception** (4) surveys the relationship between the various sensory modalities and behavior. The emphasis is on the interaction between such variables as basic sensory neurophysiology, environmental factors, personal experiences, and the ultimate process of perception. Includes a lab. Prerequisite: 101, 151
- **363. Abnormal Psychology** (3) presents the behavioral, cognitive, and emotional disorders confronted by mental health professionals. Students learn to apply current methods of assessing maladaptive behavior and to use psychological theories to explain psychological problems. Prerequisite: 101, one additional psychology course
- **381. Advanced Psychobiology** (4) explores the relationship between physiological and psychological response. Central control of neuromuscular, autonomic and endocrinological systems is examined and topics such as emotions and the effects of psychoactive drugs are covered. Includes a lab. Prerequisite: 101,151
- **390.** Counseling Theory and Process (3) is designed to broaden the student's knowledge and understanding of counseling through lectures, readings, and an experiential lab component. The student will learn the basic theoretical perspectives of counseling, the fundamental process of counseling, and the relationship between theory and process. The lab component will engage the student in rudimentary skill building in the area of counseling. The theories and procedures presented in the course can be adapted to and used in a wide variety of settings, including social work, education, and traditional psychological service settings.
- **391. Comparative Psychology** (3) presents a phylogenetic comparison of animal behavior. Behavior similarities and differences between man and animals are studied within the historical framework of the development of the field in America and Europe. Prerequisite: 101
- **397. Mental Health Internship** (2) requires 80 hours of practical experience and a written report, and is typically completed during the junior year. The internship experience is directed by a departmental advisor and an on-site supervisor with placement in a local human services agency or hospital. Prerequisite: permission of instructor

- **398. Research Internship** (2) provides opportunity to engage in independent research under the direction of a department faculty member. Students are required to make a final professional report of their findings. Prerequisite: permission of instructor
- **399.** Developmental/Educational Internship (2) requires 80 hours of practical experience and a written report, and is typically completed during the junior year. The internship experience is directed by a departmental advisor and an on-site supervisor. Placements include human services agencies and schools, or the department's Center for Child Development. Prerequisite: permission of instructor
- **407. History and Systems of Psychology** (3) analyzes the more important theoretical systems of behavior study. Attention is given to the forces in history and the individuals contributing to the emergence of trends in psychology. Prerequisite: 101, two additional psychology courses
- **409. Topics in Psychology** (3) deals with selected topical courses offered in a seminar format. Offerings include Developmentally Appropriate Practice, Environmental Psychology, and Drugs and Human Behavior.
- **419. Readings in Psychology** (1-3 depending on the semester offering) offers the student an opportunity to read extensively and discuss with department faculty topics not offered as part of the existing psychology curriculum. Prerequisite: junior or senior standing and permission of the instructor; prerequisites may vary for different classes
- **493. Comprehensive Review** (2) is a weekly review of current research and student projects. Students write and present research proposals that serve as the basis for their senior studies project. Required of all senior psychology majors, the course is completed when the student submits an acceptable literature review with a research proposal and passes a standardized, comprehensive examination in psychology.
- 495. Senior Studies (2) continues a weekly review of current research and student projects in addition to an independent study program that provides opportunities to practice inquiry and discovery while intensively researching some fundamental issue or problem in behavior. The individualized studies culminate in an empirical investigation, a written report, a poster, and an oral presentation to the department. The course is an extension of the Comprehensive Review projects which are continually presented during weekly review sessions. Prerequisite: senior standing in psychology and completion of the research proposal for 493

Public Affairs

Advisors, Associate Professor HUBER; Assistant Professor PARKER

The interdisciplinary major in public affairs is designed to foster civic education and participation. Students who major in public affairs will be exposed to a plethora of views, insights, and theories on government, business, and society. This major gives the student the necessary tools for democratic citizenship. The public affairs major helps prepare students for a lifetime of engaged citizenship in the larger world where practical political decision making and democratic deliberation occur.

Career-wise, the program is designed to assist students to work in various agencies and organizations at the national, state and local levels by improving their skills to conduct planning, analysis, and evaluation of programs, projects, and the functioning of organizations. Additionally, the public affairs major is designed to prepare students for study beyond the bachelor's degree in such areas as law, public administration, and political science. Students are encouraged to view their undergraduate education as part of a long-range process of rigorous professional education and preparation. Students interested in majoring in public affairs should contact the advisor at their earliest possible convenience.

The public affairs program does not offer a minor; students must either complete the major or simply use public affairs courses as electives or to fulfill requirements within another major or minor course of study.

Major (42 Hours)

The Public Affairs major exposes students to the analytical study of social issues; it is problem-centered, not focused on the dynamics of any particular academic "discipline." To assist the student, the core ideas covered have been broken into seven distinct learning areas.

- Productivity; money and public finance; investment; and fiscal integrity (9 hours)
 Requirements: Economics 215, 216; Accounting 201
- 2. Guarantees and entitlements; distribution of benefits/ subsidies/transfer payments; Balance between the public and private sectors; government mandates; regulation; and organizations and bureaucracies (6 hours) Requirements: Political Science 321, 322
- 3. Social stability; political process; federalism; law and constitutionalism and political Power and corruption (9 hours) Requirements: Political Science 111, 211 Electives: one course from Political Science 311, 312, 313, 314; History 383
- Social Perspectives (3 hours)
 Electives: one course from History 212 or Sociology 216
- 5. Problem-solving; inference; and methodological skills (6 hours)
 Requirements: Political Science 341 Theory and Methods
 Electives: one course from Economics 325; Mathematics 140,
 340; Psychology 232

- 6. Balance between the individual and the state (3 hours) Requirements: Philosophy 203
- 7. Practical experience and development of research skills (6 hours) Requirements: Interdisciplinary 300 (Internship for 3 credit hours); Interdisciplinary 490 Public Affairs Senior Seminar

Religion and Philosophy

Professors LEKAN, NÜŤT (Chair); Assistant Professors CONROY, GOSNELL, SHARP

Since the beginning of university and collegiate studies in the Middle Ages, the study of religion and philosophy has had a significant place among the Liberal Arts. To be educated is to reflect seriously upon those ultimate concerns that belong to each person.

The departmental studies are enhanced by an excellent library collection, visiting scholars, and a variety of extracurricular activities that give an opportunity for the expression of Christian and social concerns. Majors in the department frequently go on to theological seminaries or other graduate schools. They are concerned with professions such as the ministry, law, government, and social work. Generally, students aspire to the many opportunities available to help people through their profession or occupation.

For additional information please consult the religion and philosophy web site at http://muskingum.edu/~rel_phil/index.htm

Religion major (28 hours)

Requirements: Religion 301, 303, 320 or 326, 393, 495, 496 Electives: Courses from Religion offerings: up to two Philosophy offerings with permission of the department chair

Religion minor (15 hours): option of one offering in Philosophy with permission of department chair

Christian Education major (35 hours in addition to the Moral Inquiry LAE requirement)

Requirements: Religion 260, 301, 303 or 304, 320 or 326, 385, 393, 397, 494 Education 110, 112, 314 Psychology 101

Philosophy major (28 hours)

Requirements: Philosophy 101, 325, 327, 350, 353 or 354, 495, 496 *Electives:* Courses from Philosophy: up to two Religion offerings with permission of department chair

Philosophy minor (15 hours)

15 hours in Philosophy offerings: option of one offering in Religion with permission of department chair)

Course Offerings

Religion

- **150. Biblical Theology** (3) surveys the theological paradigms found in the Bible and invites students to consider their own theological commitments. Special attention will be given to such issues as theologies of scripture and the hermeneutic implications of social location.
- **153. World Religions** (3) studies the principal doctrines, historical development, and contemporary practice of the major traditions.
- **251.** The World of Islam (3) studies the central doctrines, historical development, and current practice of Islam.
- **252.** The Judeo-Christian Tradition (3) surveys in historical context the western religions of Judaism and Christianity. Special attention is given to modern manifestations of these two great religious traditions.
- **253. Biblical Ethics** (3) explores the ethical systems found in the Bible.
- **260. Introduction to Christian Theology** (3) studies the central doctrines of Christianity as they have developed through the history of the church. Key points of discussion and major thinkers will be covered and students will be led to identify and articulate their stance with regard to each doctrine. The contemporary theological scene will be introduced as well.
- **261.** Women and the Bible (3) explores the often ambivalent relationship between women and the Bible. It examines what the Bible says about women, how women are portrayed in biblical texts, and how women readers have broadened our understanding of the Bible.
- **262. Global Christianity** (3) surveys the growth of Christianity in the world and treats the church as it exists in Africa, Asia, Latin America, and the Pacific Rim. How is Christianity transmitted from one culture to another? How is Christianity in other parts of the world similar to and different from Christianity in the United States?
- **301. Old Testament Literature** (3) studies the library of books bequeathed to us in words from ancient Israel. Through literary and historical criticism the message of the Law, the Prophets, and the Writings is discovered in the world of biblical literature.
- **302. Biblical Backgrounds** (3) studies the physical, cultural, and literary remains that help us understand and interpret Old and New Testament literature.
- **303. New Testament Literature** (3) studies the library of books bequeathed to us in words from the early Christian church. Through literary and historical criticism the message of the Gospels, the Acts of the Apostles, the Letters, and the Revelation is discovered in the world of biblical literature.
- **304. Jesus in the New Testament** (3) studies the person and work of Jesus as presented in the entire New Testament.

- **320.** History of Christianity: Ancient and Medieval (3) studies Christianity from its origins to the Reformation. Key people, events, ideas, and the relationship of the church to the world in which it existed will be examined.
- **326. History of Christianity:** Reformation and Modern (3) studies Christianity from the beginning of the Reformation in the sixteenth century to the present. Key people, events, ideas, and the relationship of the church to the world in which it existed will be examined.
- **329. African-American Religious History** (3) surveys the development of religion among African-Americans. Such topics as the characteristics of African religions retained in the United States, Christianity before and after emancipation, religion and the civil rights movement, and Black nationalist religions and movements will be studied.
- 330. Christ and the Courts: Religion and Culture in the United States (3) examines the influences and relationships between religion and culture in the history of the United States. Students address such issues as separation of church and state, manifest destiny, the shaping of American values, religion and politics, and social justice and reform.
- **342. Religions and Philosophies of Asia** (3) deals with the different forms of religious belief around the world—especially Hinduism, Buddhism, Confucianism, Taoism, Shintoism, and Islam. See listing under Philosophy 342.
- **352. Religion and Film** (3) examines how religious perspective influences the way film is made and understood. This course engages in the cross-cultural examination of religions and cinema. Offered in alternate years.
- **353. Religion and Gender** (3) explores cross-cultural religious communities by focusing on the interplay between religion and gender. Special consideration will be given to the role of myths and symbols in determining power and gender relations.
- **354.** Christian Ethics in the United States (3) is a chronological survey of ethical issues in the U.S. history and the ways in which Christians have responded. Topics such as civil religion, women's rights, slavery, industrialization, war, and civil rights will be addressed.
- **360. Topics in Religion** (1-3) allows students to explore special areas of religious study in more depth than regular course offerings can provide.
- **365. Religion and Science** (3) investigates the relationship of science and religion. Their differing methodologies, assumptions, and structures will be explored. Current issues such as cosmology, evolutionary biology, sociobiology, ecology, neuroscience, and theology will be discussed. Prerequisites: one Religion course and one laboratory science course

- **368. Religion in the United States** (3) studies Protestantism, Catholicism, Judaism, and other religious movements. It examines the development and interaction of religion with other aspects of culture in the United States. See also History 368.
- **385. Teaching Christian Education** (3) studies the aims, curriculum, methods, and materials of Christian education. Prerequisites: Religion 301 or 303 or 304, Education 112
- **393. Global Issues and Values** (3) surveys selected natural issues (such as energy, population, and food supply), political issues (such as human rights, refugees, peace) and particular problems (such as those concerning the Palestinians, South Africa, multi-national corporations)—asking what values are operative and what values are required for responsible citizenship in the global village.
- **395. World Mythology** (3) focuses on myths and mythic categories important to religions around the world. This course is a cross-cultural examination of contemporary and classical myths from diverse cultures.
- **397. Internship in Christian Education** (2) provides the opportunity to work under supervision in a church, school, or other agency during one semester or in the summer. Open to juniors and seniors. Prerequisites: two courses in Religion and Education 110
- 398, 399. Internship in Pastoral Care (2, 2) provides supervised experience in patient visitation at Southeastern Ohio Regional Medical Center as a means of learning appropriate approaches to the care of individuals and families experiencing different degrees of health crises. Prerequisites: 2.5 GPA, junior standing (sophomores by special permission) and approval of the Muskingum and hospital chaplains. May not be applied to the religion major or minor. Graded S/U
- **401.** Directed Readings in Religion (1; 2; 3) provides the opportunity for intensive reading in areas of religion selected in consultation with the department.
- **451.** The Christian Life and Ethics (3) encourages student understanding of the human search for the meaning of life. Students will consider the options and problems of faith for the modern world, how to analyze issues, how to develop awareness of values, and how to make informed and responsible ethical decisions from the standpoint of a thoughtful and faithful Christian.
- **494. Senior Studies in Christian Education** (2) provides the opportunity for study and writing in a major area of religious education.
- **495. Senior Seminar Research in Religion** (1) involves research necessary for the completion of the senior seminar. Such preliminary research includes extensive reading, compilation of a bibliography, composition of a theses statement, and the creation of an initial outline. Students will be asked to demonstrate their progress in regular meetings with the instructor and/or department

496. Senior Seminar (3) involves writing an extensive research paper on a focused topic. Students will be asked to demonstrate their progress in regular meetings with the instructor and/or department. This course culminates in an oral defense of the project. Prerequisite: RELG 495

Philosophy

- **101. Introduction to Philosophy** (3) presents the nature and role of philosophy considering fundamental philosophical topics such as human freedom, personal identity, immortality, the nature and existence of God, the problem of evil, the nature and source of knowledge, theories of truth, and the ingredients of a happy life.
- **202. Logic and Critical Thinking** (3) examines formal and informal techniques for evaluating arguments in order to improve critical thinking skills. Topics include informal fallacies of reasoning, uses and abuses of language, arguments in context, symbolic logic, and validity.
- **203. Introduction to Ethics** (3) critically examines ethical theories of the criteria used to make justified and responsible ethical decisions. Considers difficult moral problems connected to topics such as killing, lying, fairness, sexual morality, environmental concerns, and professional ethics.
- **305. Biomedical Ethics** (3) explores moral issues relating to medicine and biology. Examples of issues considered include euthanasia, genetic engineering, disabilities, and allocation of healthcare resources. Students will explore arguments about these issues using the concepts and principles of ethical theory.
- **325. Western Philosophy:** The Ancients (3) investigates Greek and Roman philosophy including figures such as Plato, Aristotle, pre-Socratics, Stoicism, Epicureanism, with a focus on the role of rational inquiry in the quest for human flourishing.
- **327. Western Philosophy:** The Early Moderns (3) examines philosophies from 1600-1800 such as rationalism (Descartes, Spinoza), empiricism (Locke, Hume, Berkeley) and Kant's critical philosophy. Focuses on this period's response to scientific and political revolutions.
- **331.** Environmental Ethics (3) explores the nature and basis of our ethical obligations regarding the natural environment. Considers views of these obligations ranging from the human centered (anthropocentrism), to the moral considerability of animals (animal liberation), to the notion that we have direct obligations to all living things or whole ecosystems (ecocentrism). Provides the opportunity to use these ethical perspectives to evaluate environmental policies, laws, or agendas.
- **342. Religions and Philosophies of Asia** (3) deals with the different forms of religious belief around the world—especially Hinduism, Buddhism, Confucianism, Taoism, Shintoism, and Islam. See listing under Religion 342.

- 343. Social and Political Philosophy (3) considers theories of the nature and legitimacy of the state and its laws. Also deals with topics such as the rights and responsibilities of citizens, ethics in political decision-making, economic justice, punishment, race and gender oppression, political and cultural identity, and the value and meaning of democracy. See also Political Science 343, Sociology 335.
- **350. Western Philosophy:** The Late Moderns (3) examines philosophies from the late 1700's through the 1800's. Studies figures such as Rousseau, Kant, Hegel, Marx, Mill, Kierkegaard, Nietzsche, Schopenhauer, Peirce, Comte, and Bradley. Focuses on themes such as the historical and transcendental conditions of human knowledge, the possibility of progress, nihilism, and alienation.
- **353. American Philosophy** (3) studies American philosophical movements such as Transcendentalism, Idealism, Pragmatism, and Positivism. Some attention is given to the relation of philosophy to characteristic themes of American cultural and intellectual life. Examples include religion in the age of science, Darwinism in social theory, the value and nature of education, social and political reform movements, changing conceptions of democracy, and cultural pluralism.
- **354.** Continental Philosophy (3) presents a survey of the philosophical developments in 20th century continental philosophy, such as phenomenology, existentialism, structuralism, deconstruction, feminism, and critical theory. Focus is on themes of being and consciousness, language and truth, history and culture, and theory and practice. Possible figures of study are: Heidegger, Sartre, Foucault, Derrida, Habermas, and Irigaray.
- **360. Topics in Philosophy** (1-3) allows students to explore special areas of philosophical study in more depth than regular course offerings can provide.
- **361. Topics in Moral Philosophy** (3) provides students the opportunity for advanced study of moral philosophy. Topics range from theoretical questions about the status of morality to practical questions about specific moral problems. Descriptions of the course topic for a given semester are available in the course schedule bulletin and on the Religion and Philosophy Department web site.
- **403. Directed Readings in Philosophy** (1-3) gives the student an opportunity to do intensive readings in areas of philosophy selected in consultation with the department.
- **495. Senior Seminar Research in Philosophy** (1) involves research necessary for the completion of the senior seminar. Such preliminary research includes extensive reading, compilation of a bibliography, composition of a theses statement, and the creation of an initial outline. Students will be asked to demonstrate their progress in regular meetings with the instructor and/or department.

496. Senior Seminar (3) involves writing an extensive research paper on a focused topic. Students will be asked to demonstrate their progress in regular meetings with the instructor and/or department. This course culminates in an oral defense of the project. Prerequisite: PHIL 495

Sociology and Anthropology

Professor McGUIRE (Chair); Associate Professor TABACHNICK; Assistant Professor SCHROER

Sociology and anthropology are concerned with the social and cultural factors which influence human behavior. Through the systematic study of social order and social change, students gain a perspective on the way human beings are shaped by society and culture. They are also able to assess the developmental options which are available to a society and analyze the possibilities and perils of doing social research.

An undergraduate degree in sociology prepares students for a variety of fields. Courses in the department might prepare students for an orientation which focuses on either domestic, or international issues, or any combination of these. Such professions as social work, teaching, the ministry, police work, criminal justice, law, administration, planning, journalism, research, and public health are all possible careers for a sociology major.

Students interested in sociology should contact the department chair at the earliest opportunity to ensure fulfillment of all degree and pre-professional requirements for completing a major in sociology and preparing for a related career.

For additional information please consult the sociology and anthropology departments' web site at http://www.muskingum.edu.

Sociology major (30 hours)

Requirements: Sociology 101, 360, 422 or 424, 490 (twice), 495, 496 Electives: Remainder of hours from other sociology and anthropology offerings

Sociology minor (15 hours)

Requirements: Sociology 101, three hours at 300-400 level *Electives:* Remainder of hours from other departmental offerings

Teacher licensure — integrated social studies, grades 7-12 (with a sociology major) Contact the education department for specific course requirements

Course Offerings

Sociology

101. The Sociological Perspective (3) provides an introduction to the traditions, concepts, and methods of social inquiry. Students examine such topics as culture, social interaction, deviance, inequality, and social change.

216. Social Problems in Contemporary America (3) examines the origins and consequences of some of the major social problems and dilemmas facing Americans today. Behavior related to problems such as race, class and gender, chemical dependency, sexual variation, crime, and the environmental crisis are studied from the sociological perspective.

- **270. American Corrections** (3) uses a sociological perspective to examine the history, institutions, and practice of American corrections; specifically, issues of incarceration, probation, prisoner release, and criminal justice. Prerequisite: 101. See also Criminal Justice 366.
- **301. American Society: Class and Culture** (3) surveys some of the major theories and scholarly studies on social stratification, national power structure, and corporate culture. Prerequisite: 101 or 216
- **320.** Racial and Cultural Minorities (3) examines the way in which certain groups in society are defined as minorities and subjected to discrimination. The social-psychological, historical, cultural, and sociological sources of prejudice and discrimination are covered as well as the dynamics of change in relations between dominant and minority groups. Prerequisite: 101
- **321. Social Psychology** (3) examines psychological principles and concepts involved in causal attribution, social cognition, attitude formation and change, social influence, and interpersonal relationships. Prerequisite: Psychology 101 and one additional psychology course. See also Psychology 321.
- **330.** Human Sexuality (3) explores the social influences that impact concepts of sex, sexuality, reproduction and gender. Emphasis is placed on historical, political, global and technological issues. The course also includes fundamental instruction in reproductive anatomy and physiology. Prerequisite: Sociology 101.
- 335. Social and Political Philosophy (3) considers theories of the nature and legitimacy of the state and its laws, the rights and responsibilities of citizens and groups, ethics in political decision-making economic justice, punishment, race and gender oppression, the nature and value of political and cultural identity, and the value and meaning of democracy. See also Philosophy 343, Political Science 343.
- **342. Gender, Film, and Society** (3) applies a sociological lens to gendered aspects of film and their societal correlates. Prerequisite: 101
- 345. Sociology of the Family (3) examines the various forms and functions of the family in the United States as well as other cultures. The developmental cycle of the family is followed through mate-selection, marriage, parenthood, and old age. Family change is also analyzed by covering such topics as industrialization and sex roles. Prerequisite: 101
- 350. Social Change in an International Perspective (3) focuses on the international aspects of social change such as the gap between the rich and poor countries, social movements in Third World countries, and the theoretical perspectives that illuminate and explain such change. Case studies are drawn from current events. Prerequisite: 101 or Anthropology 201
- **352. Selected Topics in Sociology** (3) presents an opportunity to read and discuss in depth topics not covered or only partially covered in regular courses. Prerequisite: 101 or Anthropology 201
- **360. Social Research Methods** (3) introduces the student to the research

- process through the analysis of research designs and the various methods of collecting data and of drawing inferences from that data. Emphasis is placed on practical experience in developing research skills. Prerequisite: 101 or Anthropology 201
- **369. Peacemaking** (3) takes a multidisciplinary approach towards peacemaking. Moves back and forth between personal applications in one's daily life on the one hand and more academic applications of the social sciences (sociology, anthropology, history, psychology and criminal justice) and humanities on the other. Emphasis on writing and class discussion.
- **370.** Environmental Sociology (3) constructs a framework for the study of how cultures and societies influence and in turn are shaped by the natural environment. Prerequisite: 101
- **380. Visual Sociology** (3) explores documentary filmmaking as a method of sociological research. Documentary filmmaking is of increasing interest to sociologists as an effective form of public sociology, activist sociology and sociolog6y as a form of service learning that involves sociologists and students in community issues.
- 418. Deviance and Crime (3) surveys trends and theories of criminal behavior and crime control. Major emphasis is on the relationship between social and cultural patterns and deviant behavior. Prerequisite: 101, 216 recommended. See also Criminal Justice 418
- **422. Sociological Theory** (3) offers a descriptive and analytical survey of intellectual traditions and trends in the discipline of sociology from its origin to the present. Prerequisite: 101
- **424. Contemporary Sociological Theory** (3) surveys the major contemporary schools of general theory currently influential in sociology research. Particular emphasis is placed upon early and later sociological theoretical schools, especially structural functionalism, conflict, and symbolic-interactionist theories. Prerequisite: Sociology 101; 422 recommended
- **490. Round Table** (1) encourages free and open conversation between students and faculty on sociological issues and applications. Graded S/U. Prerequisite: 15 hours in Sociology/Anthropology
- **495. Senior Studies** (2) provides an opportunity for the student to engage in the groundwork for guided independent study on an approved topic. Prerequisite: 101 or Anthropology 201
- **496. Senior Studies** (2) enables the student to complete a guided independent study on an approved topic. Prerequisite: 495

201. Cultural Anthropology (3) is an introduction to the basic concepts, theories, and methods of cultural anthropology. It deals with the origin, nature, and dynamics of culture, and provides a cross-cultural comparison of the ways of humankind.

352. Selected Topics in Anthropology (3) See Sociology 352.

Spanish

See Modern Language

Speech Communication and Theatre

Professors HARMAN, J. MARTIN; Associate Professors E. ALESANDRINI, LAUCK (Chair), PHILLIPS, RAO; Assistant Professors GERMAN, MARSHALL: Instructor POLLOCK

Digital Media Design

A Digital Media Design major is the quintessential cross disciplinary program, reaching out to various disciplines throughout the University. It is designed to enhance and extend the liberal arts identity of the University itself, providing students with a pedagogy and a program that draws upon a wide range of academic subjects and skills, each with deep traditions and well-established modes of inquiry and problem-solving. In so doing, the major in Digital Media Design will prepare students well for a world that is increasingly focused on interaction, integration, and cooperation in the realms of commerce, culture, and professional life. The Digital Media Design major is forward-looking, constructing a curriculum that incorporates the emerging and converging technologies of our age, and the ways of thinking with and about them.

Central to the major is digital media convergence, a contemporary development that is reshaping the potentialities of design. Students learn a variety of approaches to a variety of design challenges, as they pursue and develop strategies in innovative problem solving. Students with a Bachelor of Arts in Digital Media Design will have a wide range of career options, including multi-media design, interactive design, webpage design, video production, display design, marketing, and advertising, as well as many other possibilities. Digital Media Design prepares the student to bring together the visual and auditory arts through the various media communication.

Speech Communication

The study of speech communication is designed to provide the student with an understanding of the communication processes found in contemporary society, an appreciation of the historical, technological, literary and dramatic heritage of communication, and an opportunity to improve skills in oral communication.

Students who complete the speech communication major are prepared for a variety of roles in society. They may enter such fields as business, sales, personnel, public relations, and secondary teaching. They are also provided with pre-professional background for telecommunications, government service, and graduate work in a number of fields such as law and the ministry.

Activities related to speech communication are open to all students regardless of major. Students may become involved in intercollegiate forensics as well as have an active role in WMCO, a Class A 1.32 KW FM radio station and Muskingum University Television (MCTV), a television production studio operating on the cable access channel in New Concord.

Students may take a program with a Speech Pathology and Audiology emphasis by completing a speech major at Muskingum University during the first three years followed by a final year of 30 specified hours in the Speech Pathology and Audiology Department at Kent State University, Kent, Ohio. A bachelor's degree from Muskingum with this emphasis provides students the opportunity to enter the graduate program in Speech Pathology or Audiology at Kent State University. Please contact the department chair for more information.

Theatre

The study of theatre combines theory and practice in the classroom with performance in theatre productions which are open to all students. Academic offerings provide students with a complete theatre experience which includes reading, writing, designing, building, acting, and directing plays.

Theatre majors may concentrate in one of five areas: acting, technical theatre, directing, dramatic literature, or theatre history and criticism. In addition, students frequently combine theatre with other majors in order to broaden their career choices. Facilities include a new flexible theatre space and a small experimental theatre space. Students may be active in Muskingum Players, an organization promoting interest in theatre.

For additional information please consult the speech communication and theatre department's website at http://www.muskingum.edu/~speech/

Digital Media Design major (48 hours)

Core Requirements (21 hours): ART 170, DMD/SPCO 210, DMD 300, DMD 398, DMD 399, DMD 400, DMD 495

Essential Design Skills (18 hours to be comprised 9 hours each from two of the following academic areas):

Art: ART 120, 141, 270

Electronic Media: SPCO 111, 211, 308

Print Media: ENGL 207, 208, 213 or 217 (3 times)

Theatre: THEA 245, 246, 345 or 346

Advanced Application Skills (9 hours in one of the following academic areas):

Art: ART 120, 121, 131, 112, 141, 212, 231, 270, 370

Courses experienced through a semester at the Art Institute of Pittsburgh can also provide necessary coursework for the area.

Business: BUSI 321, 341, 413 or 417

Communication: SPCO 335, 345, 395, 446 Electronic Media: SPCO 111, 211, 312, 309

Music: MUSC 101, 143-2 (2 semesters), 343-2 (1 semester), 310 Print Media: ENGL 207, 208, 209, 213 or 217 (3 credits), 306, 315,

316, 317, 390

Sociology: SOCI 341, 352, 301

Theatre: THEA 275, 375, 245, 246, 345 or 346, 414

Requirements: 210 or 260, 295, 325, 495; one course from 312, 315, 335 Electives: remaining hours may include with departmental approval a maximum of 6 hours in Theatre

Speech communication minor (15 hours)

Requirements: three hours at 300-400 level

Theatre major (31 hours)

Requirements: Theatre 245, 275, 351, 352, 375, 396, 451, 495

Electives: remaining hours may include with departmental approval a

maximum of 6 hours in Speech Communication

Theatre minor (15 hours)

Requirements: 245, 275

Electives: three upper level three-credit hour Theatre courses

Course Offerings

Digital Media Design

210. Media History and Effects (3) surveys the evolution of newspapers, magazines, film, telecommunication, and advertising/public relations. The power, impact and roles of these media in today's digital and global society are examined.

- **300. Visual Communication** (3) introduces principles and theories of the study of two-dimensional images, specifically those developed with informational or persuasive intent. Students will acquire visual literacy skills that will allow them to evaluate and critique messages. They will demonstrate understanding by using electronic graphic and web design software to design an electronic portfolio of visual communication messages. Prerequisite: ART 170
- **398.** Directed Design Project (3) gives students the opportunity to propose, plan and execute a client-based project in design. Projects can include, but are not limited to, graphic and logo design, Web site design and implementation, or interactive applications. The classroom component covers workplace communication, negotiation of expectations and deadlines, and evaluation of outcomes. The workplace component includes client meetings and in-studio work hours. Prerequisites: ART 170, DMD 300 or permission of the instructor.
- **399.** Digital Media Design Internship (3) involves a supervised experience in a field related to media design. The program is closely supervised by faculty members and an on-site director. Please note: DMD majors must complete both 398 and 399 which together count as 6 of the 16 internship hours which may be applied to graduation requirements. Graded S/U. Prerequisite: Junior standing, 2.5 GPA and instructor permission
- 400. Principles of Interactive Design (3) provides a survey of research

literature surrounding the emergent concept of interactivity in mediated environments. Students will develop awareness of the opportunities and complexities that interactive potential can do to traditional media designs. Emphasis will be placed on identifying and meeting the needs of the end-user when developing interactive experiences. Students will have the opportunity to use multimedia software applications to present their designs. Prerequisite: DMD 300

495. Seminar in Digital Media and Interactive Design (3) allows students to research and design an interactive media solution exigent to their cross-disciplinary interests. The first four weeks of the course will be devoted to the development of a project prospectus. During the remainder of the semester, students will work independently under the guidance of their advisor to develop and present their work. Prerequisite: DMD 400

Speech Communication

101; 201; 301; 401. Communication Practica (1; 1; 1) provide laboratory or workshop experiences in speech communication, telecommunications, or interpretation. Registration is with the department chair at final registration. Restrictions: maximum of two hours per year; maximum of four hours toward major or minor.

- **111. Media Writing and Performance** (3) emphasizes the production planning, writing, and scripting processes as the necessary first steps in preparing material for radio and television productions. Students write and deliver broadcast news and features, commercials, promotional announcements, and longer format programs. See also JORN 111.
- **200.** Fundamentals of Speech Communication (3) develops knowledge of the basic principles, types, and theories of communication. It also provides practice in selecting and evaluating speech materials, organizing and phrasing ideas, controlling voice and body, and in critical thinking and listening.
- **205.** Extemporaneous Speaking (3) emphasizes the basic principles of this form of speech. The student furthers work in basic public speaking skills while learning to assemble materials efficiently and logically within a limited time period for class presentations. Prerequisite: 200 or permission of instructor
- **206. Voice and Diction** (3) involves intensive drill, on a phonetic basis, in articulating the sounds which make up the English language, with attention to the production of good vocal quality and expression. A study of the history of English sounds gives the student the necessary background to understand how spoken English evolved and develop skills in use of the International Phonetic Alphabet.
- **207. Introduction to Speech Pathology** (3) introduces and emphasizes the basic principles of speech language pathologies and audiology. Students learn the causes and origins of speech, language, and audiology processes in human communication. Prerequisite: Permission of the instructor
- **210. Media History and Effects** (3) surveys the evolution of newspapers,

- magazines, film, telecommunication, and advertising/public relations. The power, impact, and roles of these media in today's digital and global society are examined.
- **211. Audio Production** (3) introduces basic analog and digital audio recording and editing techniques and their creative applications in electronic media production. Students develop reasonable standards of criticism for their own work and that of others. Prerequisite: SPCO/JOURN 111
- **260. Oral Interpretation of Literature** (3) deals with the oral re-creation of literature for a specific audience, placing the interpreter as intermediary between the author's intent and the needs of the listener. The interpreter may choose to work with prose, poetry, non-fiction prose or drama.
- **295. Introduction to Communication Research** (3) develops the research skills necessary to complete the senior communication research project. Open to speech communication majors and minors in the spring of their first or second year. Prerequisite: 200
- 300. Visual Communication (3). See DMD 300
- 308. Single Camera Video Production and Editing (3) introduces single-camera production and editing techniques and their creative applications in various program formats. Pre-production planning and design, field production and nonlinear editing projects are emphasized. Students develop reasonable standards of criticism for their own work and that of others. Prerequisite: SPCO/JOURN 111
- **309. Multi-Camera Video Production and Directing** (3) introduces multicamera production techniques and their creative applications in various program formats. Pre-production planning and design, studio production and directing live studio and field productions are emphasized. Students develop reasonable standards of criticism for their own work and that of others. Prerequisite: SPCO/JOURN 111 or instructor permission.
- **312.** Electronic Media Structure and Content (3) surveys programming, economic, and structural issues in contemporary electronic media. The impact of new communication technologies on the traditional radio/television enterprises is also emphasized.
- **315. Argumentation** (3) explores the reasoning process in both theory and practice. Students develop both sides of an argument in classroom debates. A written brief is prepared on a contemporary question which has been researched and debated in class. Prerequisite: 200
- **316. Intercollegiate Forensics** (2) teaches various aspects of speech competition. Students learn how to compete in public address, oral interpretation, limited preparation events, and debate. Restrictions: may be repeated with a maximum of 6 hours counted toward the major, ten toward graduation requirements. Prerequisite: permission of instructor
- **325. Persuasion** (3) teaches theory and applied use of persuasion and an

- appraisal of its influences upon modern society. Prerequisite: 200, 295 or permission of department
- **335. Small Group Communication** (3) examines the principles and forms of small group interaction with emphasis on problem solving and cooperative and reflective thinking. Prerequisite: 200
- **340. Gender Communication** (3) focuses on gender issues in the field of communication. Specific areas that are studied include the history of men and women's movements, gender-related theories, and gender differences in various areas such as nonverbal communication, verbal communication, interpersonal communication, music videos, advertising, film and television.
- **345. Interviewing** (3) provides instruction and practice in the forms of communication most often utilized in the business and professional world. Emphasis is divided between eliciting and providing information in settings most common to the business and professional world.
- **355.** Organizational Communication (3) introduces theoretical and practical approaches to communication within an organization. The course will emphasize the history of communicating in business settings and possible choices for approaches to communicating with others in professional venues.
- **395. Special Topics in Communication** (3-6) provides the opportunity to study selected areas such as gender, organizational communication, and communication technologies. May be repeated once for credit as content changes.
- 446. Interpersonal Communication (3) explores the processes of daily interaction dealing with all aspects of strength and weakness in communication situations. Emphasis is on significant relationships with groups, individuals, and self. Students learn to recognize themselves in interpersonal conflict situations and to cope with those problems through class interaction.
- **495. Seminar in Research/Performance** (3) exposes students to an intensive study in a selected area of communication. The first four weeks are devoted to the development of a project prospectus. The remainder of the semester is given to independent study under the guidance of an appropriate instructor. Prerequisite: 295

Theatre

- 103; 203; 303; 403. Projects in Theatre (1; 1; 1; 1) provides laboratory or workshop experiences in technical theatre, design, acting, directing, theatre management history, or criticism. Registration is with the department chair at final registration. Restrictions: maximum of two hours per year; maximum of four hours toward major or minor. Graded S/U. Exception: concurrent enrollment in 403 and 496 requires a letter grade.
- **151. Introduction to Theatre** (3) surveys theatre history and the arts of acting, directing, designing, playwriting, and criticism for a greater understanding of theatre in the world.
- 205. Portfolio Review (1) assists students in creating, presenting and

- discussing a professional, digital technical portfolio as preparation for professional technical interviews. May be repeated once for credit
- **223. Auditioning** (1) examines audition technique for monologues, cold readings, improvisation, and vocal performance. Students will prepare headshots and resumes, develop a repertoire of monologues and songs, and audition for professional employment. May be repeated once for credit.
- **245. Technical Production** (3) involves students through lecture and laboratory work in the processes of building, painting, handling, and assembling stage scenery from design and working drawings through performance and strike. Participation in theatre productions is required.
- **246.** Light and Sound for Stage and Studio (3) deals with the physics of light and sound in theatrical terms, with theories studies in the context of practical application. Students learn the mechanical means of reproducing light and sound and the fundamentals of their place in designing the production. Prerequisite: 245
- **275. Acting I (3)** examines acting through theories and exercises. Scene study is designed to enable students to create a role for the stage. This is a process oriented course, which provides the student with a foundation of script analysis and creative skill.
- **314. Acting II** (3) continues to explore acting through theories, exercises, and scene study. A variety of acting styles, approaches, and genres will be examined. Prerequisite: 275
- **316. Improvisation** (3) examines the skills and techniques used in improvisational theatre performance. Students will build acting skills through exercises, solo work, as well as ensemble activity.
- **345. Scenic Design** (3) provides the student with the basic design language and the elements of design approaches. Staging types and techniques are examined and evaluated. Prerequisite: 245
- **346. Scenic Arts: Costume and Make-up** (3) encourages a research approach to design. The student begins to develop a methodology for conducting production research.
- **350. A History of Film** (3) surveys the history and nature of film with emphasis upon the American contribution to film art, genres, acting, directing, and cinematography.
- **351. World Theatre History** (3) focuses on the historical development of theatrical production. Examines dramatic tradition from Greek origins, observes its evolution through history, and traces the progress of theatrical styles throughout the world.
- **352.** Dramatic Literature (3) closely examines representative dramatic literary

- texts. Particular consideration is given to the application of literature on stages and examining principal plays for a better understanding of our vast theatrical and cultural heritage.
- **356. Playwriting** (3) introduces the basic techniques of structure and dialogue in writing a play. Students will experience writing, reading, and revising performance work.
- 375. Directing I (3) examines the art of directing through theories and procedures of production, including preliminary applied playscript analysis. Offers introductory experience through the application of the tools of picturization, composition, and movement in the production of several in-class scenes. Prerequisites: 245, 275
- **381. Selected Studies in Theatre** (3) introduces a variety of theatre genre. May be repeated twice for credit as content changes.
- **383. Professional Studies in Theatre:** *Shakespeare on Stage; Professional Stage and Study; Summer Theatre* (2; 2; 2) provides field experiences between semesters and during the summer. Students may take one, two, or all of the courses.
- **395. Special Topics in Theatre** (3) focuses upon a variety of subjects in theatre. Topics such as theatre management and playwriting may be offered. May be repeated once for credit as content changes.
- **396. Theatre Research: Method and Theory** (3) Develops the research and analysis skills necessary to complete the Seminar in Research. Students are introduced to various research methods, and examine the major critics and theorists of theatrical tradition. Prerequisite: THEA 351.
- 414. Directing II (3) rigorously studies theories and applications of directing. Students will undertake sustained collaborative projects, experience the process of developing personal style, and explore varied techniques and diverse styles of production. Prerequisite: 375
- **494. Methods of Teaching Drama/Theatre** (2) introduces a candidate for teacher certification in drama/theatre to classroom methods and materials necessary for teaching the theatre discipline.
- **495. Independent Study in Research** (3) intensively examines a selected theatre area: design, acting/directing, or history/criticism. Students develop a project prospectus in the first four weeks and spend the remainder of the semester in an independent study guided by a staff member. May be repeated once for credit.
- **496. Independent Study in Performance** (2) provides students who have developed approved projects in Theatre 495 with an intensive period of production and performance in the areas of design, acting, and directing. Prerequisite: 495 and departmental approval.

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- Meghan Wynne (2002), *Instructor of English*, B.S., Pennsylvania State University; M.F.A., The Ohio State University
- Elizabeth Zicha (1983), Associate Professor of Physical and Health Education, B.S., Indiana University of Pennsylvania; M.S., Ohio University; Ph.D., West Virginia University
- **Lois A. Zook-Gerdau** (2002), *Associate Professor of Chemistry*, B.A., Hiram College; Ph.D., University of Iowa

Emeriti Faculty

John B. Armstrong (1965-90) M.A., Librarian Emeritus

J. Edward Barrett (1964-93) Ph.D., Professor Emeritus of Religion

John Baxter (1985-2006) Ph.D., Professor Emeritus of Physics

William Blakesley (1949-75) M.A., Associate Professor Emeritus of Art

Russell V. Brown (1975-2007) Ph.D., Professor Emeritus of Spanish

Margaret L. Burk (1993-2009), Associate Professor Emerita of Business

Robert F. Burk (1984-2009), Professor Emeritus of History

James Burson (1964-2006) Ph.D., Professor Emeritus of Physical and Health Education

Albert R. Christopher (1970-93) M.A., Associate Professor Emeritus of Physical and Health Education

J. Ransom Clark (1990-2005) J.D., Professor Emeritus of Political Science

Joseph B. Elkins (1962-93) Ph.D., Professor Emeritus of Philosophy

William L. Fisk (1946-87) Ph.D., Professor Emeritus of History

E. Rudolph Gerlach (1957-93) Ph.D., Professor Emeritus of Chemistry

Donald P. Hill (1959-95) Ph.D., Professor Emeritus of Speech Communication and Theatre

Dorothy J. Knight (1942-82) M.A., Assistant Professor Emerita of Mathematics and Computing Science

Jack Kovach (1968-2005) Ph.D., Professor Emeritus of Geology

William L. McClelland (1956-89) Ph.D., Professor Emeritus of Religion

Martha C. Moore (1948-86) M.A., Professor Emerita of Speech Communication and Theatre

Robert Lee Munkres (1960-99) Ph.D., Professor Emeritus of Political Science

Charles H. Nelson (1969-97) Ph.D., Professor Emeritus of Sociology

Lorle Ann Porter (1965-98) Ph.D., Professor Emerita of History and Regional Historian in Residence

David L. Quinn (1966-2001) Ph.D., Professor Emeritus of Biology

Vishnu P. Saksena (1968-2001) Ph.D., Professor Emeritus of Biology

Katherine Schnitker (1943-49, 1968-80) M.M., Associate Professor Emerita of Music, Musician in Residence

Wilbur R. Schnitker (1942-77) M.M., Professor Emeritus of Music, Musician in Residence

William J. Schultz (1968-96) Ph.D., Professor Emeritus of English

Edgar Sherman (1943-79) M.A., Professor Emeritus of Physical and Health Education

David Skeen (1968-2005) Ph.D., Professor Emeritus of Psychology

Shirley E. Smith (1977-2003) M. Ed., Assistant Professor Emerita of Education

Russell A. Smucker (1982-2007) Ph.D., Associate Professor Emeritus of Mathematics

Stacia A. Straley (1981-2003) Ph.D., Associate Professor Emerita of Political Science

Taylor Stults (1962-2001) Ph.D., Professor Emeritus of History

Herbert F. Thomson (1961-87) Ph.D., Professor Emeritus of Economics, Accounting and Business

Daniel E. Van Tassel (1981-2003) Ph.D., Professor Emeritus of English

William J. Wallace (1963-2001) Ph.D., Professor Emeritus of Chemistry

Raymond H. Zepp (1955-76) Ph.D., Professor Emeritus of Music

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MUSKINGUM UNIVERSITY

2010 – 2011 UNDERGRADUATE ACADEMIC CALENDAR

Fall Semester 2010

Monday, August 30

Classes Begin Tuesday, August 31 (11 a.m.) Opening Convocation Add/Drop period ends Friday, September 3 (5 p.m.) Monday, September 6 Labor Day (classes as usual)

Friday October 1 Last day to withdraw from 1st half classes Friday, October 8 Early assessment grades due to Registrar

Friday, October 15 1st half classes end Monday-Tuesday, October 18-19 Fall break (no classes) Wednesday, October 20 2nd half classes begin

Tuesday, October 26 Add/Drop ends for 2nd half classes

Tuesday, November 9 Last day to withdraw from full semester courses Tuesday, November 23 Last day to withdraw from 2nd half classes

Wednesday-Friday, November 24-26 Thanksgiving break (no classes)

Friday, December 10 Classes end

Monday-Friday, December 13-17 Final examinations

Final grades due to Registrar Tuesday, December 21 (noon)

Spring Semester 2011

Monday, January 10 Classes begin

Friday, January 14 (5 p.m.) Add/Drop period ends

Monday, January 17 Martin Luther King, Jr. Day (no classes) Monday, February 14 Last day to withdraw from 1st half classes Monday, February 21 Early Assessment grades due to Registrar

Monday, February 28 1st half classes end Tuesday, March 1 2nd half classes begin Spring break (no classes) Monday-Friday, March 7-11

Monday, March 14 Add/Drop ends for 2nd half classes

Monday, March 28 Last day to withdraw from full semester courses

Friday, April 8th Scholarship Recognition Day Program Monday, April 11 Last day to withdraw from 2nd half classes

Thursday-Friday, April 21-22 Easter Holiday (no classes)

Wednesday, April 27 Classes End Thursday, April 28 Study Day

Friday-Thursday, April 29-May 5 Final examinations

(excluding Sat. & Sunday, April 30 & May 1)

Saturday, May 7 or Sunday, May 8 Commencement

Wednesday, May 11 (noon) Final grades due to Registrar

May Term 2011

Monday, May 9 Classes Begin

Tuesday, May 10 (5 p.m.) Add/Drop period ends Monday, May 30 Memorial Day (no classes)

Thursday, June 2 Classes End Friday, June 3 Final examinations

Wednesday, June 8 Final grades due to Registrar

Special Dates

Friday-Saturday, October 15-16 Homecoming

Friday-Sunday, April 8-10 Scholarship/Parents Weekend