Academic Programs

Muskingum’s offerings include interdisciplinary studies as well as courses available through the various academic departments. Descriptions of the offerings follow.

Undergraduate Program
The academic organization of the College consists of a coordinator for each division and a chair for each department:

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Graduate Programs
Dean, Associate Professor FAGAN; Associate Dean, Assistant Professor SANFORD

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 overview of the program.

Muskingum College provides two graduate professional degrees and a variety of post baccalaureate advanced 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
Director, Associate Professor SCHMITZ

The Master of Arts in Education is designed for licensed or certified education professionals and offers concentrations in Elementary Curriculum
and Instruction, Secondary Curriculum and Instruction, Art and Music. While earning the master’s degree, students also may complete programs leading to licensure in Educational Leadership, Intervention Specialist: Mild/Moderate, Intervention Specialist: Talented and Gifted, Early Childhood, and Early Childhood Intervention Specialist.

**Master of Arts in Teaching**

The Master of Arts in Teaching 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), and Intervention Specialist: Mild/Moderate.

**Educating Children Summer Training Institute**

Director, Associate Professor SCHMITZ

The annual Educating Children Summer Training Institute (ECSTI), founded in 1995, provides one-week, three-credit graduate seminars in June. Subject matter experts throughout the United States and other countries are brought together to lead seminars. Credits earned through ECSTI coursework 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. This qualification applies whether or not the offering’s description notes frequency of availability.

Beside each departmental heading is the roster of the department’s faculty.

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 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. 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.

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, Associate 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
- History 365, 372, 373, 375, 376, 382, 383, 385
- Philosophy 353
- Political Science 211, one from 311-319, one from 321-329, 365
- Religion 322, 330
- Sociology 320, 345, 365

**Anthropology**  
See Sociology and Anthropology

**Art**  
Associate Professor Y. Sun (Chair); Assistant Professor Mccollum; Lecturer Seiler (part-time), Yin (part-time)

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 for 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 College 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 curation. 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 degree requirements and for those pursuing preprofessional options, requirements for the Art Institutes program and teacher education licensure in multi-age visual arts.

For additional information please consult the art department’s web site at www.muskingum.edu.

**Major** (34 hours)

Requirements: 112, 121, 131, 151, 170, 212, 241, 490
- Two courses from 251, 351, 451
- One course from 412 or 441
- One art course elective
- Portfolio for acceptance into major program

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

**Minor** (15 hours)

Requirements: 112, 121, 151 and 170
- Electives: 3 additional hours at 300-level or above

**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.

**121. Ceramics I** (3) introduces methods and aesthetics from ancient and contemporary practices used worldwide. Fundamental 3-D design problems are explored using handbuilding and wheelthrowing 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 handbuilding. 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. Prerequisite: 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. Offered in alternate years.

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. Offered in alternate years.

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
Professor INGOLD (Chair); Associate Professors DOOLEY, OSUNSANYA; Assistant Professors BERGSTROM, SANTAS; Instructor ATKINSON (part-time)

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 a 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 encourage students destined for professional or graduate schools requiring a biology major. These include pre-graduate, pre-medical, pre-dental, pre-veterinarian and 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 encouraged 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 faculty development, renewal and 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 12,500 square feet in the Boyd Science Center. The space includes five teaching laboratories, a greenhouse, three
controlled environment rooms, 11 double occupancy student research laboratories, 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 preprofessional 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 www.muskingum.edu.

**Major (46 hours)**

Requirements: 111, 112, 107 (twice), 226 this sequence must be completed by the end of the sophomore year

Chemistry 111, 112

One course from each of the following areas:

Ecology and Systematics: 221, 232, 304, 308, 358;
Conservation Science 331

Cellular and Molecular Biology: 306, 312, 336, 368, 375;
Neuroscience 386

Morphology: 213, 321, 373, 380

Research: 420

Electives: one course selected from Environmental Science 121, 421;
Molecular Biology 211, 411; Conservation Science 231, 431;
Neuroscience 201; remaining credit hour requirements from Biology 228, 421, 422

**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.

- **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.

- **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** provides 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 principles may provide a contextual framework for understanding a number of contemporary social issues.

d. **Genetic Frontiers and Biotechnology** surveys the scientific principles, applications and social implications of recombinant DNA technology/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 and chemical evolution, examines the defining characteristics of all of the major animal phyla and introduces the major principles of ecology and animal behavior. In addition, some of the broad concepts associated with humans and the environment including conservation science, will be introduced. Co-requisite: 107.

112. **Organismal Biology II** (3) studies the structure and function of various organ systems in the vertebrates. Many examples from plants and invertebrates are frequently used to emphasize diversity, adaptability and evolution. Co-requisite: 107.

129. **Physiology of Exercise** (3) analyzes the responses of the human body to physical activity. Lecture and laboratory experiences are involved.

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** (3) deals with the classification and evolution of selected families of vascular plants with emphasis on the regional flora. 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.

228. Human Anatomy (3) deals with the structure of the human body. Lecture and laboratory experiences including cat dissection are involved. Prerequisite: 112, 107.

232. Vertebrate Natural History (3) deals with the collection, identification and classification 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 laws of heredity and speciation. Lecture and laboratory experiences are involved. Prerequisite: 112, 107.

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) studies the nature of microorganisms with special emphasis placed on bacteria of importance to medicine and industry, including body defense mechanisms and immunology. Lecture and laboratory experiences are involved. Prerequisite: 112, 107 and Chemistry 111, 112.

321. Advanced Botany (4) is an evolutionary study of the morphology and life-history 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, electrophysiology, neurochemistry, muscles and glands. Laboratory emphasizes basic electro physiology and synaptic function. Prerequisite: 112, 226, 107 and Chemistry 111, 112.

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.

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, plasmids, bacteriophages, transposable elements and recombinant DNA technology. 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 Professor PERERA (Chair); Assistant Professors KUHN (part-time), SZALAY, ZOOK

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 an 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.

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, 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 College 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. Work-study opportunities are also offered. Contact the department chair to expedite fulfillment of requirements.

For additional information, please consult the chemistry department’s web site at www.muskingum.edu.

**Major** (36 hours in chemistry including)
- Requirements: 111, 112, 213, 214, 315, 335, 355, 454, 455
  - Physics 121, 122, 125, 126
  - Mathematics 190, 200
- Chemistry electives: one course from 316, 418, 425, 445
- Recommended electives: Mathematics 140; Computer Science 111;
  - a modern language

**Minor** (19 hours)
- Requirements: 111, 112
- Electives: 11 hours excluding 105

**American Chemical Society** certification (44 hours in chemistry including)
- Requirements: 111, 112, 213, 214, 315, 316, 335, 355, 418, 425, 454, 455
  - Mathematics 190, 200, 230, 320
  - Physics 121, 122, 125, 126
- Recommended electives: Chemistry 445, Mathematics 140 or 340;
  - Computer Science 111;
  - A modern language (preferably German)

**Teacher licensure** – Integrated science with chemistry major
- Dual Field Science - Chemistry major with earth science
  - Chemistry major with life science
  - Physical science with chemistry major
  - Physical science with physics 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.
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 4 hours of laboratory. Prerequisite: 112.

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, Physics 121, 125.

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. 2 hours of lecture and 6 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** (4) is a study of the structure, function and reactions of protein/enzymes, generation and storage of metabolic energy, nucleic acids, viruses and hormone function. The laboratory provides the opportunity to practice the unique techniques involved in the study of macromolecules. 3 hours of lecture and 3 hours of laboratory. Prerequisite: 214, Biology 111, 112 or permission of the department.
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.

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.

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, Assistant Professor STEVENSON

This major prepares students to become early childhood professionals and/or individuals 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 teach young children. Those who work in agencies that serve children and families need to understand the factors that promote optimal development. The importance of the years from birth to age eight cannot be overstated and interventions are best if they can begin early. The interdisciplinary major in child and family studies prepares students for working in child care centers and agencies that promote optimal growth and development of children from infancy through adolescence and for working to enhance family relationships and connectedness.

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. And the child development research track is designed for students who plan to pursue graduate studies. The major also is individualized for students through the practicum, internship and senior thesis opportunities.

**Major**

**Core courses** (34 hours)
- Education 112, 308, 309, 371
- Psychology 101, 205, 220, 222, 308, 399 *Developmental/Educational*
- Sociology 101, 345

**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, 360, 422, 320 or 401, 495, 496

**Electives** (6-9 hours or a double major)
- Computer Science 100
- Health Education 200, 365, 380
- Physical Education 319, 321
- Political Science 321 or 322
- Sociology 210, 320, 401
- 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**
Advisors, Associate Professor DOOLEY; Instructor ATKINSON (part-time); Visiting Lecturers BLUMER (part-time), MARKS (part-time)

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 a 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 College 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 under the Muskingum College home page (http://www.muskingum.edu).

**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.
Zane State College Group

These courses are taken at the Zane State College campus through arrangement with the student’s Muskingum College advisor.

Environmental Resource Management (ENV)
171. Water Sampling and Analysis (4 qtr.hr. - 2 lec. 4 lab) designed to give practice in water sampling techniques and chemical analysis (wet chemistry, instrumental methods and portable test kits) of the water quality of streams and lakes. It also includes studies of new methods, techniques, instruments in field sampling and lab analysis, data interpretation and reporting results.

218. Air Sampling and Analysis (4 qtr. hr. - 3 lec. 3 lab) study of the Earth’s atmosphere including: constituents and interactions, pollutant sources/sinks, stationary and mobile source control technologies, effects of pollutants on the environment, public policy, and standard techniques used to sample for both gasses and particulates.

142. Remote Sensing and Cartography (3 qt.hr. - 2 lec. 3 lab) remote sensing and cartography; resources, principles and techniques for their use in the natural sciences. The course emphasizes the use and natural resource management applications of the following topographic maps, natural resources (specialty) maps, aerial photographs, infrared and satellite imaging, computer aided navigation systems, global positioning system (GPS) and geographic information systems (GIS). Information and data collection and manipulation is practices to acquaint students with this technology.

253. Groundwater Hydrology (3 qtr.hrs. - 2 lec. 3 lab) presents an overview of basic groundwater flow systems, well design and groundwater management. Emphasis will be placed on the environmental aspects of groundwater development and management.

Parks, Recreation and Wildlife Technology (PRW)
130. Soil and Water Conservation (3 qtr.hrs. - 2 lec. 3 lab) introduction to soils and soil fertility, with emphasis on physical properties of soil. These properties will be applied to soil and water conservation practices which include waterways, diversions, bank stabilization, farm ponds, drainage, windbreaks and spring developments.

250. Wildlife Habitat Management (3 qtr.hrs. - 2 lec. 3 lab) habitat evaluation and manipulation techniques are studied and put into practice in the field. Cover mapping habitats, quantitative vegetation analysis, release cutting and controlled burning are just some of the operations used in the ecological assessment and management of successional stages for game and non-game species.

260. Wildlife Population Management (3 qtr.hrs. - 2 lec. 3 lab) sampling and analysis of wildlife populations are emphasized. Census techniques, mark-recapture and removal methods are used to assess population numbers. Age and growth studies, survivorship curves, population biology of vertebrates
(pest and non-pest species), condition, sexing and autopsy techniques for birds and mammals are covered.

270. Fisheries Management (3 qtr.hrs. - 2 lec. 3 lab) freshwater fish are studied in terms of their taxonomy, morphology, life history and ecology. Aquatic habitat evaluation is combined with management practices for lakes, ponds and stream systems. Population studies, age and growth, food habits and stocking techniques are incorporated into sound ecological practices.

Surveying (SUR)
142. Remote Sensing and Cartography (3 qtr.hrs. - 2 lec. 3 lab) remote sensing and cartography: resources, principles and techniques used in the natural sciences. Natural resource management applications for topographic and specialty maps, aerial photographs, satellite imaging, computer navigation systems, global positioning system (GPS) and geographic information system (GIS). Data collection and manipulation are practiced in lab.

Natural Science (NFS)
240. Wetlands Ecology (3 qtr. hrs. - 2 lec. 3 lab) serves as a capstone experience for all natural science students. Topics include the ecology of wetlands, wetland plants, hydric soils, wetland animals, wetland delineation, constructed wetlands, and wetland mitigation. A group field research assignment with written and oral reports will allow students to use and apply previous technology courses.

Assistant Professor PRAY

Criminal Justice is the newest interdisciplinary major, approved by the faculty in the fall of 2002. While many such programs are quite technical in nature, at Muskingum the Criminal Justice program is formulated within a solid liberal arts framework. Here the curriculum draws heavily from courses within the social sciences, particularly political science, sociology and psychology, since the need exists for broadly educated professionals in the field. Besides leading to the obvious career paths (e.g., law enforcement and corrections), the major in Criminal Justice will provide an appropriate foundation for students interested in pursuing a career in other areas. These might include positions in the public service arena or governmental professions including law and the judicial system, and involvement in local or regional politics or public policy activities. As well, the major would provide a good background for individuals seeking opportunities in human services including probation work, and delinquency or rehabilitation counseling. Further, this major would prepare students to pursue advanced degrees in a wide variety of disciplines including criminal justice, sociology, criminology and psychology.

The courses which constitute the Criminal Justice major are expected to gain faculty approval in the Fall of 2004. In the interim, students are advised to consult the Criminal Justice Program Advisor for more information including the proposed course listings.
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.

Earth Science
See Geology

Economics, Accounting and Business

Professors BRADY (Sabbatical, Fall), DRUBEL; Associate Professors M. BURK, HYDELL (Chair), NOWAKOWSKI, J. WILSON; Assistant Professors GOLDEN, HEDDAEUS

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 preprofessional 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 Economics, Accounting and Business department’s web sites at www.muskingum.edu.

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, one course chosen from 420, 421, or 422, 495
  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, 303. Intermediate Accounting (3, 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-for-profit 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
Professors, FRESE, KOKOVICH, V. WILSON (Chair); Associate Professors MORROW, ROGNESS, SCHMITZ; Assistant Professors, BRUMBAUGH, COLLINS, COWDERY, EDIZER, KREGER, OBENCHAIN-CLARK, Instructor B. BROWN

For information about the Master of Arts in Education and the Master of Arts in Teaching, see the Graduate Studies Catalog. The theme for all Muskingum College 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 III, the State of Ohio’s entry-year teacher performance assessment.

At the undergraduate level, the department offers three majors, 21 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 College requirements for licensure.

Individuals desiring to work with adolescents ages 12 through 21 (grades 7-12) or in multi-age licensure areas (Pre K-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 multi-age licensure should consult both with the chairs of the specific disciplines and with the education faculty. They should request 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. Hours are to be completed during the semester in which the specific courses are taken. 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 308, 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, it is expected that all education courses be completed as well as all courses in the major or concentration. The professional semester consists of three weeks of education coursework, one twelve-week full day student teaching placement (two six-week placements in visual arts, foreign languages, health, music and physical education) and a final week of capstone activities. Students teach according to the calendar of the school systems to which they are assigned and completed additional professional semester coursework during the evening hours. Each licensure area requires a separate student teaching experience.

Acceptance into Muskingum College does not ensure entrance into the college’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. Contact the education department for additional information.

Changes in state licensure requirements may result in changes in program requirements.

For additional information please consult the education department’s web site at www.muskingum.edu.

**Early Childhood Education Major** prepares individuals to teach children ages three through eight (grades prekindergarten through third). Course requirements include:

- Interdisciplinary 115
- Psychology 101, 205, 220 (preschool), 222, 409
- Sociology 101, 345
- Physical Education 319
- 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:

- two of the following: 382, 383, 384, 385
Psychology 101, 308
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.)

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/chemistry, earth science/chemistry, life science, earth science and physics. Courses requirements include:
   - Education 110, 112, 313, 330, 335, 390, 413, 451, 461, 464, 466;
   - one of the following: 391, 392, 394, 395.
Psychology 101, 308
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, 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, 308
A disciplinary major that is a part of one of the multi-age licensure areas

Intervention Specialist (Mild/Moderate, ages 5-21) prepares individuals to work with students with special needs in grades K-12. Program guidelines are available in the Education Department.

Teacher Education at Muskingum College
96 students completed the program in 2002-03.

Praxis II Results
Total pass rate for all students who completed one or more Praxis tests by September 1, 2003 across all categories used by the Ohio for licensure was 90% at Muskingum College.

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<thead>
<tr>
<th>Assessment</th>
<th>Pass Rate</th>
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<tbody>
<tr>
<td>Professional Knowledge</td>
<td>90%</td>
</tr>
<tr>
<td>Academic Content Areas</td>
<td>94%</td>
</tr>
<tr>
<td>Teaching Special Populations</td>
<td>100%</td>
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<tr>
<td>Summary Pass Rates</td>
<td>90%</td>
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April 2004
Course Offerings

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: 40 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: 110. Required field experience.

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: 110, 112.

308. Early Childhood Education (3) provides students with the historical, philosophical, psychological and social foundations of early childhood education. Prerequisite: Admission to the teacher education program or Child and Family Studies major.

309. Early Childhood Curriculum (3) provides the curricular and instructional framework for providing meaningful, developmentally appropriate learning experiences and accommodations for diverse young children with an emphasis on preschoolers, ages 3-5/6. This course includes direct interaction with both typically and atypically developing preschoolers. Prerequisite: Admission to the teacher education program or the Child and Family Studies major, 308. Required field experience. Required non-credit workshops.

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 experience.
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 experience.

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 experience.

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 and presents the arts as a means of enhancing the development of young children and promoting creativity and exploration. Prerequisite 308, 309, Interdisciplinary 115.

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. Clinical experiences and field experience with individuals with different exceptionalities are required. Prerequisite: 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: 240 or 330, 309.

335. Educational Technology (1) is an introduction for the pre-service educator to technologies found in various classroom settings. The course requires the successful manipulation of hardware devices such as optical scanners, digital camera and other developing technologies. Students access and apply to the education setting information stored on the Internet, databases and computer software, as well as learning applications of word processing, spreadsheet computations and computer assisted instruction. Prerequisite: 110 and Computer Science 100. Prerequisite or co-requisite 309, 312, 313 or 314.
362. Integrating Children’s Literature and Social Studies for Young Children (3) develops the knowledge and skills necessary to provide effective instruction based on disciplinary social studies standards for children aged 3-8. The course also includes knowledge, selection and use of high quality children’s literature and the role of literature in teaching social studies. Prerequisite: 309. Required field experience and Pathwise observation.

363. Integrating Math and Science in Early Childhood Education (4) provides knowledge and skills necessary to provide developmentally appropriate math and science instruction based on state and national curriculum models in an integrated, inclusive early childhood setting for children aged 3-8. Prerequisite: 309. Required field experience.

370. Phonics and the Process of Reading (3) develops linguistic and cognitive foundations for reading in an integrated language arts context. Emphasis on the knowledge base of reading. Introduction to comprehension strategies, the writing process, curriculum development, assistive technology, and assessment and diagnosis of reading difficulties. Emphasis on phonics, phonemic awareness and word recognition in an integrated language arts context. Fulfills the state requirement in phonics for Early Childhood Education and Middle Childhood Education majors. Prerequisite: Admission to the Teacher Education Program.

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. Prerequisite: 370 or a Child and Family Studies major. Required field experience.

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 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. Prerequisite: 370. Required field experience.

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. Prerequisite: 312. Required field experience.

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. Prerequisite: 312. Required field experience.

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. Prerequisite: 312. Required field experience.

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. Prerequisite: 312. Required field experience.

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.

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. Prerequisite: 313. Required field experience.

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. Prerequisite: 313. Required field experience.
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. Prerequisite: 313. Required field experience.

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. Prerequisite 371. Required field experience.

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. Prerequisite: 313, 314. or 372. Required field experience and Pathwise observation.

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. Prerequisite: 371 or 372. Required field experience.

415. Reading Practicum (0) is field experience in a reading specialist’s classroom, including reading instruction assessment, diagnosis, and remediation. A requirement for the Reading Endorsement. Prerequisite or corequisite: 414.

430. Assessment of Children with Mild/Moderate Special Needs (3) provides knowledge and skills needed to select, administer and interpret the wide variety of assessment options needed for students with mild to moderate special needs. The legal provisions, regulations and guidelines regarding unbiased assessment are highlighted. Special emphasis is placed on assessments for individuals who under the federal classification system would be considered identified as having an emotional or behavioral disorder, learning disabilities, mental retardation/developmental disabilities or health or physical disability that hampers educational performance. A field experience in which students administer formal and informal assessments, including social behavior scales, adaptive behavior scales and curriculum-based assessments is required. Prerequisite: 330.

434. Provision and Adaptation of Curriculum and Instruction for Children with Special Needs (3) focuses on the selection and implementation of prevention, intervention and instructional strategy alternatives for students with special needs. Topics addressed include functional life skills, community-based instruction, social skills development, and multi-modal instruction in academic
areas including reading and learning strategy instruction. Environmental, instructional and behavioral adaptation and accommodation alternatives for children with special needs served in regular education settings are emphasized. Uses of educational technology and assistive devices to facilitate effective learning are explored. The field experience requires students to plan and provide instruction for students with special needs. Prerequisite: 330.

449. **Student Teaching in Grades 1-3** (7) is a ten-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 grade setting, grades K through 3.

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.

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.

455. **Student Teaching in Primary/Middle Level Physical Education** (5) involves students as practice teachers under the supervision and guidance of a cooperating teacher and college 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.

457. **Student Teaching in Secondary Level Physical Education** (5) involves students as practice teachers under the supervision and guidance of a cooperating teacher and college 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.

461. **Student Teaching Seminar** (1) taken during the professional semester, 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.

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. Completed at the end of the professional (student teaching) semester.

465. Professional Practices in Middle Level Education (3) taken as a part of the professional (student teaching) semester, 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.

466. Professional Practices in Secondary Schools (3) taken as a part of the professional (student teaching) semester, 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.

467. Student Teaching in Pre K/K (3) is a four- to five-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 prekindergarten/kindergarten setting, ages 3-5.

English

Professors CHAFFEE, EDSALL (Chair, Fall; Sabbatical, Spring); Associate Professors DeCUIR, WILLIAMSON; Assistant Professors VARLEY, WAGNER; Instructors FARQUHAR, R. VAN TASSEL (Fall), M. FOX

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 www.muskingum.edu.

Major (30 hours beyond 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** – 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: 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 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, copyreading, 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 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 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-Classical 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. Prerequisite: Education 312 or 313.

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. Journalism 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, photo guidelines are covered.

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, 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, 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, Morrison).

351. Modern and Contemporary Poetry (3) makes a comparative study of modern poetry, with a primary emphasis on British and American works: on 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, Canadian literature and feminist writing, as well as others devised by faculty or requested by students.

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.

495. Seminar (3) is the capstone course for English majors; students share in intensive study of a literary topic or author and write a paper of suitable length. Discussions focus on analyzing literature, critical reading and research methods. Offered each semester on a subject selected by the instructor. Prerequisite: senior status or permission of department chair.

Environmental Science
Advisors, Professor INGOLD; Associate Professors LEKAN, VAN HORN

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 (35-36 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 (79-80 hours) which includes Biology Track Courses 18 hours; Group II Electives 12 hours
Chemistry Track: Environmental Science Major (82-83 hours) which includes Chemistry Track Courses 21 hours; Group II Electives 12 hours
Geoscience Track: Environmental Science Major (80-81 hours) which includes Geoscience Track courses 19 hours; Group II Electives 12 hours
Social Science Track: Environmental Science Major (78-79 hours) which includes Social Science Track Courses 18 hours; Group III Electives 11 hours

For additional information please consult the environmental science department’s web site at www.muskingum.edu.
Core Courses (35-36 hours)
- Biology 105 (Environmental Science) or 111, 112, 107 (twice)
- Chemistry 111, 112, 235
- Geology 101 or 110, 104
- Mathematics 140 or Economics 325 or Psychology 232
- Physics 121 and 125 (co-requisite Mathematics 190) or 101 or 102

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 122 and 126 or 101 or 102
- Geology 313, 322
- Geography 111
- Groundwater Hydrology at Zane State College (ENV 253)

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, 321-329, 351
- 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
- Political Science 111
- Philosophy 331
- Religion 393
- Sociology 370

Biology Track (18 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 recent published reports, 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.

Zane State College
Environmental Resource Management

253. Groundwater Hydrology (3 qt. hrs. -2 lect. 3 lab. ) an overview of basic groundwater hydrology including groundwater flow systems, well design, and groundwater management. Emphasis will be placed on the environmental aspects of groundwater development and management.

French
See Modern Languages

Gender Studies
Advisor, Associate 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 is 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 313, 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, 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**

Assistant Professor VAN HORN

Geography courses are offered as a service to Muskingum College 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.
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
Professor KOVACH (Leave), Associate Professor LAW (Chair), Assistant Professors KUHN (part-time), VAN HORN

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 College, 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 Theta Gamma Epsilon (the local honorary society in geology) 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 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 www.muskingum.edu.

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, 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, 102, 104, 200, 301, 302, 311
Geometry 321
Physics 150
Geology 345 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.
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.

345. **Directed Studies** (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 geochemistry and other topics by consultation. Prerequisite: permission of instructor.

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**

Professors R. BURK; Associate Professor KERRIGAN (Chair, Spring; Sabbatical Fall); Assistant Professors HATTINGH, HILTON, McGrath; Lecturer Fries (part-time)

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 pre-
professional 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 www.muskingum.edu.

Major (30 hours)
Requirements: 111, 112, 211, 212, 420, 460
Electives: one course from each grouping
   European 315-341
   Non-Western 343-356
   American 365-385
   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 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 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.

340. **Russian History** (4) traces the development of the Russian nation from earliest times to the death of Stalin in 1953. Emphasis is placed on the growth of political absolutism, territorial expansion and the major characteristics of Russia’s cultural and revolutionary heritage.

341. **Contemporary Russia** (3) analyzes the Soviet Union and Russia from approximately 1945 to the present. Special attention is given to the government and Communist Party, conditions of daily life, foreign policy, the break-up of the Soviet Union in 1991 and the post-Soviet period.

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.

365. The American Indian (3) involves the cross-disciplinary study of Native Americans and their social, political and cultural interaction with each other and with white society during the 19th and 20th centuries. Emphasis is placed on the Trans-Mississippi West. See listings under Political Science 365 and Anthropology 365.

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. Offered in alternate years. See listing 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. Prerequisite: 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 Cold War to the present are explored.

382. **The Rise of Industrial America, 1865–1929** (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 1929** (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 emergence of an environmental movement in recent decades.

390. **Topics in History** (3) deals with selected topical courses such as the Vietnam experience, Civil War, Presidential Elections, World War II in the Pacific, Cold War and Canadian 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 standing and 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: senior standing or permission of instructor.

**Humanities**

Advisor, Professor NUTT

An interdisciplinary major in humanities may be designed about a unique theme or meaningful cluster of courses in the arts and humanities division (art, English, modern languages, music, religion and philosophy, speech communication and theatre).
For additional information please consult the humanities department website at www.muskingum.edu.

**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.

**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 demonstrate respect for the depth that the major traditionally provides in the liberal arts curriculum and include 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, integrated under an annual theme. The course also introduces students to academic resources on campus such as the Computer Center, the Library and the Center for Advancement of Learning.

**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.

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.

291. **Introduction to Gender Studies** (1) 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. It can be taken a maximum of three times to count toward the minor in Gender Studies as subject matter changes.

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, 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.

**International Affairs**  
Advisor, Instructor KING

The interdisciplinary major in international affairs is designed for students interested in the relationship of the United States to other nations and societies. Career options include government service, international relations, multinational corporations, lobby groups, international service organizations, international agencies, or the United Nations.

**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 231, 351  
**Comparative Culture and Politics** (9 hours)  
- French 325  
- German 325  
- History 340, 341, 343, 346, 351  
- Political Science 331  
- Spanish 325  
**Language Skills - either (a) or (b)**  
- a. Participation in an approved study abroad program that includes 3 hours of course work in a foreign language.  
- b. Completion of a Muskingum College 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 WEHAGE; Associate Professors MORRIS, NOWAKOWSKI; Assistant Professor WILLIAMS

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. They 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 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
- Economics 215, 216, 361
- Business 318, 321, 341 and 412
- History 320, 341, 347, 348 or 351
- Political Science 131 or 231
- Interdisciplinary 491

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
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, 341, 346, 347, 348, 353, 376, 390; Political Science 131 or 231, 331, 332, or 351; 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**
Advisors Professors EDSALL, HARMAN; Assistant Professor WAGNER
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 (55-56 hours)**
- Requirements: Speech Communication 111, 210, 211 or 311, 295, 312, 325 or 335, 345
  - English 201 or 202, 207, 208, 209, 213, 217 (taken twice),
  - 315 or 316, 317, 361
- Two courses from: Speech Communication 101, 201, 301, 401
- Speech Communication 495 or English 495
- Philosophy 203
- Internships: Interdisciplinary 300 (3 hours) Audio or Video Production and (3 hours) Print Journalism
- Recommended electives: Art 141; Economics 341; History 376; Political Science 314; Sociology 216

**Mathematics and Computer Science**
Professor HOLLINGSWORTH (Sabbatical); Associate Professors CRAFT (Chair), DAQUILA, SMUCKER; Assistant Professors PERRY, REICHARD

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 college policy.

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

Further additional information please consult the mathematics and computer science department’s web site at 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 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 such 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 Muskingum 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.

180. Elementary Functions (3) includes topics in algebra, geometry, trigonometry and analytic geometry necessary and useful for the study of the
calculus. Prerequisite: three years of college preparatory mathematics or permission of the department.

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: 180 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: 180 or equivalent, Computer Science 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 era. 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.

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 180, 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++, COBOL, Java, 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.

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: 211 or 220.

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 VRML 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 NT. 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 and English as a Second Language (ESL)**

Professors R. BROWN (Spanish), WEHAGE (German); Associate Professor MORRIS (French) (Chair); Assistant Professor NORTON (ESL), WILLIAMS (Spanish); Instructor YANG POIRIER (French, part-time); Language Assistants RENUCCI (French), SALCEDO, SANTA MARIA (Spanish), SEIBT (German)

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 College 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, military intelligence, 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, a state-of-the-art 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 college requirements for the major.

For additional information please consult the modern language department’s web site at www.muskingum.edu.

**French major** (33 hours beyond 112)

Requirements: Study Abroad, 123, 431, one course in another foreign language at the appropriate level

Attendance at *La Table Française* (251) expected every semester, required when not enrolled in a French course; 2 hours applied to major or minor

No more than two upper level courses taught in English are 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,

Attendance at *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 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,

Attendance at *La Mesa de Español* (251) expected every semester, required when not enrolled in a Spanish course; 2 hours applied to major or minor

**French, German, Spanish minor** (17 hours)

Requirements: 123, 300-level course

Placement at appropriate level with permission of department chair

**Teaching English as a Second Language minor (TESL)** (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

Teacher licensure – multi-age foreign language (German, French and Spanish), pre-K through 21. Contact the education department for specific course requirements.

Placement
Students with four years of study in French, Spanish, or German are not permitted to take the beginning-level (111) class in the same language for graduation credit. Placement counseling and optional placement testing are available on request.

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: 301 or 302 or permission of instructor.

304. Survey of French and Francophone Literatures (3) surveys contemporary French-language literatures from French-speaking Africa, North America and the Caribbean as well as from France. Prerequisite: 301 or 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 roles. 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 French-language 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) provides 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. Mensa (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: 301 or 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. 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.

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: 301 or 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 literature by Hispanics in the United States. Prerequisite: 301 or 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 BuZeul to Almodovar. 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. [Class 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 the major. [Contact department chair for schedule of offering].

English as a Second Language (ESL) See the chapter on Admission for a description of the English Support Program (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 minimal 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 minimal 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. This course serves as the capstone for the English Support Program. Prerequisite: Permission of instructor and either 082 or TOEFL 500.

Molecular Biology
Advisors, Associate Professors OSUNSANYA, PERERA

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 function of molecules of which living cells are
made. Therefore, molecular biology as a major, requires a strong
interdisciplinary background in biology, chemistry, physics 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 www.muskingum.edu.

**Molecular Biology Major** (69 hours)

Requirements: Biology 107 (twice), 112, 226, 306, 312, 375
Chemistry 111, 112, 213, 214, 315, 418
Mathematics 190, 200
Physics 121, 122, 125, 126
Molecular Biology 211 (twice), 411, 417, 418
Biology 336, statistics and computer science courses are strongly
recommended.

It may be possible for students to also earn a major in biology with 15
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. Molecular Biology majors must take
this course at least twice. May be taken for additional 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 field. 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**

Professors R. JONES (Sabbatical, Spring), W. SCHLACKS (Chair, Spring;
Sabbatical, Fall); Associate Professors J. ALESANDRINI (Chair, Fall),
SCHUMANN; Assistant Professors ABEYARANTE, WILCOX-JONES; Instructor
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 scholar-musician through offerings in musicology, music theory, applied music lessons and performance ensembles. Muskingum College 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 College 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 a music or music education major should contact the department chair at the earliest opportunity to ensure fulfillment of all college requirements for a major in music.

For additional information please consult the music department’s web site at www.muskingum.edu.

**Music major** (48-49 hours)


- 8 hours of applied study in one area
- 8 hours in the appropriate major ensemble
- 7 semesters of 100, 300
- Junior qualifying exam (assessed after 212)

**Music education major** (76-77 hours)


Education 110, 112, 235, 240, 314, 413, 461, 464

- 6 semesters of the appropriate major ensemble and one semester in an ensemble of a dissimilar medium from the student’s primary area of applied study
- 7 semesters of 100, 300
- Junior qualifying exam (assessed after 212)

**Music minor**

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 listing 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 an introduction to music reading and music theory. The course includes basic theory, ear training and keyboard harmony and is 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, 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.

112. Materials of Music II (4) is a continuation of 111.

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.

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 and 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.

212. Materials of Music IV (4) is a continuation of 211 and includes form and analysis and compositional techniques.
215. **Aural Skills III** (1) is a continuation of 116.

216. **Aural Skills IV** (1) is a continuation of 215.

280. **Music Education: Brass Class and Methods** (2) provides practical study of the brass instruments with materials and methods of teaching.

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.

283. **Music Education: Percussion Class and Methods** (2) provides practical study of the percussion 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.

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 and the culture of the people.

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.

321. **Music History I** (3) is a detailed study of music from antiquity through Mozart. Prerequisite: 212 or consent of instructor.

322. **Music History II** (3) is a detailed study of music from Beethoven through the present day. Prerequisite: 212 or consent of instructor.
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.

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.

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.

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.

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.

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.

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 college faculty member.

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 college faculty member.

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 number.

131; 331. Brass Instruments (1)

133; 333. Woodwind Instruments (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 number.

150; 350. Piano Accompanying (major ensemble) (1)
151; 351. Southeastern Ohio Symphony Orchestra (major ensemble) (1)
153; 353. Wind and Percussion Ensemble (major ensemble), Spirit Band, Muskingum Valley Symphonic Winds (major ensemble), Directed Ensembles (1)
155; 355. Concert Choir (major ensemble), Lyric Theatre Workshop, Chapel Choir (1)
157; 357. Choral Society (1)
160; 360. Chamber Singers (1)
162; 362. Jazz Ensemble (1)

Neuroscience
Advisors, Professor NORMANSELL, Assistant 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 College Website Neuroscience Program pages for updates and revisions regarding courses, course availability and major requirements (www.muskingum.edu/~neuro/index.htm).

**Major (57-59 hours)**
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 101, 102
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.

Philosophy
See Religion and Philosophy.
Physical and Health Education

Professors BURSON; NEWBERRY; Associate Professor ZICHA (Chair); Lecturers BLOOD, CAUDILL, COOPER, DEWITT, B. FOX, HEACOCK, KASER, KIRBY, REILLY, SHANK, THOMPSON

A major in physical education examines the relationship of sports, athletics, physical fitness and dance 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.

Physical Education Major (31 hours)

Requirements: Physical Education 203, 204 (substitute for two activities required for graduation), 310, 338, 341, 416, 418
Biology 129, 228

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, 203, 204, 205, 310, 338, 418.
Athletic training track emphasis
Requirements: Physical Education 215, 310, 325, 338, 345, 450; Biology 112, 129, 228
These courses (with the exception of 450) and 1500 hours of athletic training experience 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), 112, 107, 129, 228
Physical Education 310, 470

Health Education Minor (15 hours)
Requirements: Fifteen hours of Health Education courses with at least 3 hours at the 300-400 level

Teacher licensure – multi-age health education ages 3-21; multi-age physical education ages 3-21. Physical education majors seeking multi-age licensure, ages 3 through 21, in physical education and also athletic training certification may exceed 40 hours in Physical Education by 6 hours. Contact the education department for specific course requirements.

Course Offerings

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.

102-140. 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, jogging, 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.

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 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 level students.

207. **Officiating Softball** (1) provides instruction and practical experience in officiating athletic competition for both men and women. Appropriate for middle level and adolescent level 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 of the importance of the prevention of 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.]

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 firsthand 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, 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. Offered in alternate years.

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. Offered in alternate years.

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, 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. Offered in alternate years.
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 upon 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. Particular interest in 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 upon 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.
Physics
Professor BAXTER (Chair); Assistant Professor TAYLOR

Physics is the basis for understanding natural phenomena. The department offers instruction in the principles of physics for students preparing for careers in the sciences, mathematics or computer science. Intermediate and advanced courses are offered to students wishing to either major or minor in physics.

The department also sponsors a 3-2 pre-engineering program with Case Western Reserve University for students planning an engineering career in industry or government. The physics major can prepare students for graduate school in physics or for professional schools in law or medicine.

Experimental physics is emphasized by the department through all four years of study.

Computers and computer-based measurement systems are used in the laboratories, assisted by digital video and still cameras. Principal instrumentation includes two grating spectrographs, a Michelson and Fabry-Perot interferometer, and a quartz optics monochromator. Nuclear physics instruction uses a 3" NaI scintillator/photomultiplier and a Silicon Barrier Detector with a multi-channel analyzer for gamma ray and alpha particle spectroscopy.

There are also two 8-inch astronomical telescopes that can be equipped with a photometer, low-resolution spectrograph, or an H-alpha solar filter. Several CCD cameras are used for precision tracking and for electronic imaging. The CCD camera is also used with an astronomical spectrophotometer. Support facilities include a well-instrumented and stocked electronics lab, a photographic darkroom, a machine shop.

Pre-engineering students generally take the same courses as physics majors during the first three years, but the course schedule is tailored to fit the type of engineering that the individual wishes to pursue. Under the agreement between Muskingum College and Case Western Reserve University, three years of study at Muskingum followed by two years at Case Western can lead to a bachelor’s degree from each institution. For additional information please consult the physics department’s web site.

Major (37 hours in physics and additional courses).
Required courses:
- Physics 121, 122, 125, 126, 203, 235, 311, 312, 321, 330, 425, 460, 495.
- Chemistry 111, 112.
- Mathematics 190, 200, 230, 310 required; 320 highly recommended.

Minor (15 hours)
Exclusions: Physics 101, 102 and 150.
Teacher licensure – physical science or integrated science.
Contact the education department for specific course requirements.

Course Offerings
101; 102. Introductory Physics I and II (4;4) are algebra-based introductory courses in physics. Physics 101 covers mechanics, thermal physics, and fluid
dynamics. Physics 102 covers waves, electromagnetism and optics. Either may be taken by itself; both may be taken in either order. Prerequisite: high school algebra.

121, 122. Classical Physics I, II (3; 3) is for science and pre-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. To satisfy the LAE requirement, 121, 122 must be accompanied by 125, 126. Recommended co-requisite: Math 190.

125, 126. Introduction to Experimental Physics (1,1) is the required lab for 121, 122 that focuses on experiments in mechanics, heat, sound, optics, and electricity and magnetism with close attention to error analysis and scientific writing. One three-hour laboratory each week.

150. Introduction to Astronomy (4) is a description of the sun and the stars, stellar evolution (white dwarfs, red giants, pulsars, and black holes), and the universe of galaxies. The course ends with a brief survey of the solar system. A weekly laboratory is complemented by observing sessions with the department’s 8-inch telescope. Three lectures and one laboratory period each week. Intended for non-science majors, there are no prerequisites.

203. Modern Physics (3) is a survey of 20th century physics: relativity and quantum mechanics with applications to atomic, nuclear, solid state, or elementary particle physics as time allows. Three lectures each week. Prerequisite: Physics 122.

235. Electronics (3) is a laboratory course in basic electrical measurements and an introduction to the analog and digital circuits that are used as building blocks in scientific instrumentation. One lecture and two three hour laboratory periods each week. Prerequisite: Physics 122 or permission of instructor.

311; 312. Intermediate Physics Laboratory (2; 2) is a two semester sequence in experimental physics. Four to five experiments, each semester, are selected, in consultation with each student, from the areas of mechanics, optics and atomic spectroscopy, nuclear physics, and astrophysics (stellar photometry and spectroscopy). Some experiments will involve apparatus design and construction, and computer-assisted data acquisition and analysis. Two three-hour lab periods each week. Prerequisite: Physics 235.

321. Mechanics (4) is a vector-calculus description of kinematics, Newton’s laws of motion, the work-energy theorem and potential, impulse and momentum, gravitation and planetary motion, the harmonic oscillator, and the statics and dynamics of rigid bodies. Four lectures per week. Prerequisites: Physics 122 and Math 310.

330. Electricity & Magnetism (4) is a vector-calculus description of electrostatics and potential theory, dielectrics and capacitance, the physics of
electrical conduction, DC circuits, magnetism, Faraday’s Law, and Maxwell’s synthesis of electromagnetism with light. Four lectures. Prerequisites: Physics 122 and Math 310.

425. Thermodynamics and Statistical Mechanics (4) is a study of equations of state, the First and Second Laws of Thermodynamics, Helmholtz and Gibbs Functions, Kinetic Theory, and an introduction to Statistical Mechanics with applications. Four lectures each week. Prerequisites: Physics 203 and Math 310.

460. Quantum Mechanics (4) is an introduction to non-relativistic quantum mechanics with applications to the linear harmonic oscillator, the hydrogen atom, and scattering theory. Perturbation theory and applications to nuclear, condensed matter, and elementary particle physics. Four lectures per week. Prerequisite: Math 310 and either Physics 203 or Chemistry 316.

495. Individual Study (3) is a research course taken by senior physics majors that involves a significant literature search and experimental work on a topic selected in consultation with a physics faculty member. A final written and oral presentation is required

Political Science
Associate Professor HUBER (Chair); Assistant Professor BOOMGAARD; Instructor KING

Political science seeks to explain the political order in societies, power, political organizations, decision-making processes and their outcomes. Relations among citizens, the processes within and among institutions in the United States and in societies around the world and the relations among the nations of the world are the focus of the study of political science. At a philosophical level, direction is toward a more ethical and humane political order.

Politics is a central force in today’s societies and the study of politics is concerned with contemporary issues and events. To understand and explain political decisions and outcomes, political science is interdisciplinary in nature, drawing upon and synthesizing findings of history, law, economics, sociology and psychology. The study of politics provides substantive insight and analytical precision regarding the structures and processes of power and decision-making in society.

The department offers courses in the major fields of political science: American politics, public policy, comparative politics, international relations and political philosophy and theory. A political science major completes a distribution across the department’s courses to become familiar with the discipline as a whole, while focusing more intensively in areas of particular interest. Readings courses and the Senior Seminar also provide the opportunity to pursue specialized interests. The political science intern program offers off-campus experiences in the practical world of politics. Muskingum College also maintains association with Drew University, which sponsors a United Nations Semester, a London Semester and a European Community Semester and association with American University, which sponsors a Washington Semester
and a number of semester programs in other world capitals. The department is also a core participant in the interdisciplinary majors of international business, international affairs, public affairs and conservation science.

With an understanding of power, organizations and decision-making, political science majors are well prepared to pursue careers in many public and private fields, including federal, state and local government, education, business, journalism and the law. Students also continue into graduate programs in political science, public administration, public management, business administration, communications and law.

Students interested in pursuing a political science major should contact the chair at their earliest opportunity.

For additional information please consult the political science department’s web site www.muskingum.edu/~pscience

**Major (30 hours)**

Core Requirements (15 hours): 111, 131, 211 or 231, 341, 491

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

- American Government courses 311-319
- Public Administration/Policy courses 321-329
- Comparative Politics/Election courses 331-339
- International Relations courses 351-359

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.

231. Introduction to Comparative Politics (3) examines the institutional elements and the patterns of political behavior and interaction that make up a
political system, including how each of these varies from one system to another and the consequences of these variations. A number of political systems will be highlighted in a comparative context throughout the term.

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 (3) provides an understanding of the inner workings of the Supreme Court and its overall place in the American political system. Various issue areas of concern to the Court are examined, including executive and legislative powers, freedom of speech, freedom of the press, the rights of the accused, privacy issues, and equal protection of the laws.

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. 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, MPDU’s and regional coalitions. Must be taken the same semester as POLS381: Community Planning Workshop.

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.

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.

333. Political Parties and Elections (3) examines the variety of political parties found in democratic nations including multiparty systems and the American parties, 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.

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.

335. Democratization (3) explores the process of creating democratic government. The course will study what democracy entails, and look at democratic transitions in various countries in Eastern Europe, Latin America, and other regions.

341. Theory & Methods in Political Science (3) surveys the development and bases 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 listings under Philosophy 343 and Sociology 335.

351. International Relations (3) focuses on the nature of interaction between political entities on the world stage, including states, IGOs, NGOs, and other actors on the world stage. 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.

354. Politics of the European Union (3) studies the role of the European Union and its effects on the member nations. A comparative perspective is utilized and the effects of the European Union on other, non-European democracies is considered.

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.

365. The American Indian (3) takes the student through the course of American history with primary attention being devoted to the impact of historical events and processes upon the indigenous population. The last quarter of the course concentrates on the contemporary problems of American Indians with special attention being directed toward relevant court decisions. See listings under Anthropology 365 and History 365.

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 college. 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 coauthors. 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**

Professors NORMANSELL (Chair), SKEEN; Associate Professors MEYER, STEVENSON; Assistant Professor ENGLE

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, 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 school-age 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 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.

**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.

**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. Grade 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 participate 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. Offered in alternate years.

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. Offered in alternate years.

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. Offered in alternate years.

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. Offered in alternate years.
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. Offered in alternate years.

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. Offered in alternate years.

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. Offered in alternate years.

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. Offered in alternate years.

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. Offered in alternate years.

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
Advisor, Assistant Professor HUBER

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

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

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

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

Balance between the individual and the state (3 hours)
Requirements: Philosophy 203

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
Professor NUTT; Associate Professor LEKAN (Chair); Assistant Professors
CONROY, GOSNELL, STOLL; Lecturer BEAVERS

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 www.muskingum.edu.

Religion major (28 hours in addition to the Moral Inquiry LAE requirement)
Requirements: Religion 301, 303, 320 or 326, 393, 495, 496
Electives: Courses from Religion offerings with option of two from Philosophy offerings

Religion minor (15 hours in addition to LAE requirement)

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, 240, 423
Psychology 101

Philosophy major (28 hours in addition to the Religious Understanding LAE requirement)
Requirement: Philosophy 101, 325 or 326, 327, 353 or 354, 495, 496
Electives: Courses from Philosophy offerings with the option of two from Religion offerings, excluding LAE requirement

Philosophy minor (15 hours)
15 hours in Philosophy offerings, with option of three hours from
Religion offerings

Religion and Philosophy major (31 hours)

Requirements: Religion 150, 260, 320 or 326
Philo 101, 325 or 326 or 327, 354
Religion 495, 496 or Philosophy 495, 496

Electives: Remainder of hour requirements from departmental courses

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.

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. A significant service learning component will link biblical perspectives on the responsibility of the community and the individual for the welfare of the “least” in society with the students’ own experiences working among the poor, the elderly, the disabled, and children.

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. Offered in alternate years.

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 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. Offered in alternate years.
302. **Biblical Archaeology** (3) studies the physical remains that help us understand and interpret Old and New Testament literature. Offered in alternate years.

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. Offered in alternate years.


310. **Ancient History** (3) studies the origin and development of the Near East, Greece and Rome. See listing under History 310.

313. **Women in Christianity** (3) explores the contributions that women have made to the study of the Bible, theology and Christian life. One of the key themes of the course will be to discover how women’s experiences have led to new perspectives on the life of faith.

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.

354. **Christian Ethics in the United States** (3) examines ways Christianity in the United States has been concerned with morals and behavior. This course will study key ethical thinkers such as Jonathan Edwards, Walter Rauschenbusch, Reinhold Niebuhr, and African-American and feminist theology, as well as the Christian response to such problems as slavery, industrialization, and war.
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: 250 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. Offered in alternate years. See listing 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 240.

393. **Global Issues and Values** (3) surveys selected natural issues (such as energy, population, 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.

394. **Mythology** (3) studies the classical myths from Greece and Rome. Students identify the gods, survey the stories, read the Iliad and plays by Sophocles and read three modern historical novels which deal with the myths and their times. Offered in alternate years.

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 Guernsey Memorial Hospital 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 college minister and the hospital chaplain. 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: RELG495.

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.

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. Offered in alternate years.

326. Western Philosophy: The Medievals (3) studies figures such as Augustine, Aquinas, Abelard, Ockham, with a focus on the methods of the Schoolmen and the relation of philosophy to the tenets of the Christian faith. Offered in alternate years.

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. Offered in alternate years.
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. Offered in alternate years.

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. Offered in alternate years.

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. Offered in alternate years. See listings under Political Science 343, Sociology 335.

353. **American Philosophy** (3) studies American philosophical movements such as Transcendentalism, Idealism, Pragmatism, 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. Offered in alternate years.

354. **Philosophy of Existence** (3) studies the situated dimensions of human existence through reflection on phenomena such as death, freedom, responsibility, alienation, consciousness of self and other. Representative figures include Kierkegaard, Marx, Nietzsche, Sartre, De Beauvior, Camus, Heidegger, Merleau-Ponty and Marcell. Offered in alternate years.

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 thesis 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); Assistant Professor SCHROER, TABACHNICK

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 preprofessional 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 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.
210. **Sociology of Education** (3) deals with case studies of educational cultures. The course consists of readings focusing on systems of value, belief and expectation resident in primary, secondary and higher educational settings that affect non-program socialization outcomes, as well as program instructional successes and failures. The course includes frequent reports on the readings. Prerequisite: 101.

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 is studied from the sociological perspective.

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 listing under Psychology 321.

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, the value and meaning of democracy. Offered in alternate years. See listings under Philosophy 343, Political Science 343.

341. **Sociology of Women and Men** (3) uses a sociological perspective to introduce students to major conceptualizations of gender and examine current sociological research on gender issues and problems. 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 and permission of the instructor.

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.

366. **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.

369. **Peacemaking** (3) takes a multidisciplinary approach towards peacemaking. Moves back and forth between personal application 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.

401. **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, 216.

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.

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: senior standing or permission of the instructor and 101 or Anthropology 201.
496. Senior Studies (2) enables the student to complete a guided independent study on an approved topic. Prerequisite: 495.

**Anthropology**

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.)

365. The American Indian (3) involves the cross-disciplinary study of Native Americans and their social, political and cultural interaction with each other and with white society during the 19th and 20th centuries. Emphasis is placed on the Trans-Mississippi West. See listings under History 365 and Political Science 365.

**Spanish**

See Mondern Languages

**Speech Communication and Theatre**

Professors HARMAN, J. MARTIN; Associate Professors E. ALESANDRINI, LAUCK (Chair), PHILLIPS, RAO; Instructors ALFMAN (part-time), KING (aka FOX), MILLSAP, POLLOCK

**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 College 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 College 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.
Theater

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 www.muskingum.edu.

Speech communication major (30 hours)
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 Pathology and Audiology emphasis
Requirements include:
- Speech Communication 206, 207, 210, 295, 325, 495
- Biology 107, 112, 226, 228, 373, 368
- Neuroscience 201
- Completion of the following courses (31 hours) at Kent State University:
  - 33101, 33102, 34103, 34104, 34106, 34107, 43402, 43492, 44111, 44310, 44492

Speech communication minor (15 hours)
Requirements: three hours at 300-400 level

Theatre major (30 hours)
Requirements: Speech Communication 295
  - Theatre 245, 275, 351, 352, 375, 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

Speech Communication
101; 201; 301; 401. Communication Practica (1; 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 and promotional announcements and longer format programs.

200. **Fundamentals of Speech Communication** (3) develops a 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. Offered in alternate years.

210. **Mass Communication** (3) surveys the evolution of newspapers, magazines, film, telecommunication and advertising/public relations. The power, impact and roles of these media in today’s American 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.

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.

311. **Video Production** (3) introduces basic video production and editing techniques and their creative applications in various program formats. Single-camera remote and multi-camera studio production are emphasized. Students develop reasonable standards of criticism for their own work and that of others.
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.

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.

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.

411. **Advanced Video Production and Directing** (3) builds on the knowledge and skills developed in the other electronic media production courses. Students learn how to take an idea from its inception through research, development and production to its finality as a television program series, developing standards of criticism for their own work and that of others. Prerequisite: 311.

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** (2) 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.

**Kent State University Group**

*For the Speech Pathology and Audiology emphasis these courses are taken at Kent State University through arrangement with the student’s Muskingum College advisor.*

**Speech Pathology and Audiology (SP&A)**

**33101. Hearing Science** (3) Acoustics, psychoacoustics, bioacoustics, anatomy and physiology of the ear. Prerequisite: None.

**34102. Applied Phonetics** (3) Basic principles of speech production and phonetic transcriptions of English with the International Phonetic Alphabet; emphasis on general American Dialect. Prerequisite: None.

**34103. Anatomy and Physiology of Speech** (3) Functional anatomy and physiology of the respiratory, phonatory, articulatory and neural systems as they are used in speech production by talkers with normal and abnormal speech. Prerequisite: None.

**34104. Speech and Language Development** (3) Normal development and linguistic analysis of language systems including phonology, morphology, syntax, semantics and pragmatics. Prerequisite: SP&A 34102, ENG 35060 or permission.

**34106. Development and Disorders in Articulation and Phonology** (3) Normal development of the speech sound system, emphasizing articulation and phonology. Introduction of assessment and intervention strategies employed for speech sound disorders. Prerequisites: B average in SP&A 34100, 34102, 34103, and major in Speech Pathology and Audiology.

**34107. Language Disorders in Children and Adolescents** (3) Introduction to assessment and intervention procedures associated with language disorders in children and adolescents. Prerequisites: SP&A 34104 or permission.

**43402. Audiometry** (3) Measurement of human hearing by pure-tone and speech audiometry; evaluation of middle ear function by immittance audiometry; screening techniques; pathologies of the conductive and sensorineural systems. Prerequisite: SP&A 33101 (grade of C or better or equivalent).

**43492. Clinical Preparation in Audiology** (3) Fundamental evaluation and management procedures of hearing-impaired persons, including a minimum of 15 hours of supervised observation. Prerequisite: SP&A 43401 and 43404. This course may be used to satisfy the writing-intensive course graduation requirement with approval of major department.

**44111. Neural Processes** (3) Anatomy and physiology of the nervous system underlying human neuromotor movements. Topics include: definition and
fundamental concepts, afferent and efferent systems, cortical anatomy and
function, cranial nerves, theories of brain function and neural maturation and
learning. Prerequisite: SP&A 34103 or permission of the instructor.

44310. Clinical Procedures (3) Examination of evaluative and therapeutic
procedures used with communicatively-impaired children and adults.
Prerequisite: SP&A 34103 or 34106, or senior standing.

44492. Clinical Preparation in Speech-Language Pathology (3) Fundamental
evaluation and management procedures of individuals with communication
disorders, including a minimum of 15 hours of supervised observation.
Prerequisite: SP&A 34106, 44108, 44310. This course may be used to satisfy the
writing-intensive course graduation requirement with approval of major
department.

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.

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.
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.

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. Offered on demand. 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.

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.

451. Theatre Theory and Criticism (3) investigates the development of critical thought and its contribution to the development of theatrical production through history. Students will examine the major critics and theorists of
theatrical tradition and will begin constructing personal responses to dramatic literature and production. Prerequisite 351.

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** (2) 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.