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Division Structure

Disciplines (i.e., departments or fields such as English, physics, or psychology) are grouped administratively into four divisions—Education, Humanities, Science and Mathematics, and Social Sciences—to help integrate the various areas of study into a liberal arts curriculum, provide a forum for faculty discussion of common programs and interests, and encourage the planning of interdisciplinary academic programs.

Courses are listed alphabetically by discipline. Each discipline description includes, as appropriate, requirements for the major, the minor, and teacher education licensure.

Division of Education

Education (page 80)
Elementary Education (page 82)
Secondary Education (page 85)
Wellness and Sport Science (page 148)

Through the field of education, students can pursue the study of education and its role in society; complete a major and teaching licensure in elementary education; prepare to teach one or more liberal arts subjects at the secondary school level; and/or prepare for graduate study in education.

Intercollegiate athletics, lifetime physical activity classes, coaching endorsement, and courses addressing sports management and various wellness issues are offered in the wellness and sports science discipline.

Many students enrolled at UMM, no matter what their area of study, participate in intercollegiate athletic competition, which is directed by the wellness and sport science faculty.

Division of Education programs are enhanced through faculty commitment to personalized instruction, use of current instructional technologies, student research, and opportunities for student and faculty participation in multicultural and international educational experiences.

Division of the Humanities

Art History (page 68)
Art, Studio (page 70)
English (page 90)
French (page 97)
German (page 102)
Humanities (page 107)
Music (page 124)
Philosophy (page 127)
Russian (page 137)
Spanish (page 140)
Speech Communication (page 142)
Theatre Arts (page 146)

The Division of the Humanities is composed of 10 disciplines offering a major, as well as supplementary courses in Russian and the humanities, i.e., the literature and thought of the non-English-speaking world in translation.

Since the time of the ancient Greeks and Romans, the disciplines in the humanities have been central to the meaning of a liberal education. These disciplines investigate important questions about the nature of human beings and their cultures, and examine alternative views concerning the meaning and direction of life.

In addition to its curricular programs, the Division of the Humanities sponsors and directs a varied program of cocurricular activities, organizations, and events for the campus and surrounding communities, including

- Student art exhibitions, an active student Art Club, and Art Gallery exhibits of works by professional artists.
- Scheduled poetry readings; the Prairie Gate Press; foreign and American films; the Writing Room to help students develop creative and expository writing skills; lectures on literary and language subjects; French, German, and Spanish student clubs with a variety of projects; opportunities for language students to travel and study abroad.
- A varied program of musical events, including concert band, orchestra, jazz ensemble, and choir concerts, as well as recitals by students and faculty; opportunities to work with well-known composers and artists in residence; tours.
- A Philosophy Colloquium in which internationally distinguished philosophers participate.
- A number of opportunities in speech communication, including sponsorship of speakers and discussion groups, student attendance at conferences, and participation in the student organization Communications Club.
- Annual offering of faculty- and student-directed plays; opportunities to work with professional troupes in residence; annual theatre tour to New York or London.
The Division of the Humanities provides students with opportunities to participate in the varied curricular and cocurricular programs described above. Through participation in these programs as either employees or volunteers, scores of students each year discover for themselves the meaning and value of a liberal education.

Finally, the Division of the Humanities offers its students one of UMM’s most beautiful and useful facilities, the Humanities Fine Arts Center—a building that has been granted by Progressive Architecture its First Design Award with the following citation:

“It gives architectural form to a powerful new direction in education—the school being integrated into the community. This project shows how the school can be a model for community development.”

Division of Science and Mathematics

Biology (page 72)
Chemistry (page 74)
Computer Science (page 76)
Geology (page 100)
Mathematics (page 121)
Natural Science (page 126)
Physics (page 129)
Statistics (page 144)

Whether interested in biology, chemistry, computer science, geology, mathematical sciences, or physics, students find that programs in UMM’s Division of Science and Mathematics offer excellent preparation for employment in a related field, graduate study, or teaching in junior or senior high school. Courses leading to Minnesota secondary education licensure are offered in chemistry, physics, life science, earth science, and mathematics. The sciences form an integral part of UMM’s preprofessional programs in the health, medical, and engineering fields and contribute to general education studies.

Students have many opportunities to get to know their instructors and perhaps be associated with them on research projects. Students have worked with faculty on evolutionary computation, distributive computing, and asynchronous transfer mode networks. They have helped develop a variety of methods for the analysis of statistical data, such as a loglinear model of educational data and the representation of three-dimensional copulas in terms of two-dimensional marginals. Students have done research into the dynamics of granular materials and into the flow of heat through soils. They have conducted investigations into molecular biology and the genetic engineering of microorganisms, the ecology of prairies, and the genetics and ecology of amphibians. They have studied the geology of glacial deposits in Minnesota, analyzed the fossils and sediments of the Cretaceous Seaway in South Dakota, and contributed to faculty field research in the Rocky Mountains of Colorado and Idaho. They have conducted research on the breakdown of pesticides, the preparation of novel chemical compounds, and the development of new chemical reactions both at UMM and in universities and laboratories across the country. Students are encouraged to publish results of their research with faculty or to present their findings at conferences or seminars. Many students at some time serve as teaching assistants, earning money while assisting professors in tasks ranging from helping with laboratory courses to tutoring beginning students.

In geology and biology, field trips are an integral part of the learning process. Students and faculty have traveled to the Florida Keys, the volcanoes of Hawai‘i, the deserts of Arizona and New Mexico, western Canada and Alaska, and throughout Minnesota and surrounding regions of the Upper Midwest, in seeking a better understanding of our Earth’s natural environments, landforms, and processes.

Students will find other ways to enhance their studies in the sciences. The Geology, Math, ACM Computer, Biology, ACS Chemistry, and Physics and Engineering Clubs provide an opportunity for students and faculty who share mutual interests to meet informally and participate in related activities. In addition, visiting scientists frequently come to campus to discuss current scientific problems and topics with UMM faculty and students.

The Division of Science and Mathematics programs are housed in new and remodeled facilities. Biology and chemistry labs, along with several classrooms, the campus bookstore, post office, and print shop are all located in the new east wing of the Science Building which was built in 2000. The computer science, geology, mathematics, physics, and statistics programs are located in the west wing of the Science Building which was thoroughly renovated in 2002. These state-of-the-art teaching and research spaces provide students with a wealth of opportunities to delve deeply into their studies through both course-related work and individualized research activities.
Division of the Social Sciences

Anthropology (page 67)
Economics (page 78)
Geography (page 99)
History (page 104)
Liberal Arts for the Human Services (page 113)
Management (page 118)
Political Science (page 130)
Psychology (page 133)
Sociology (page 138)
Women’s Studies (page 150)

The social sciences consist of the branches of study dealing with the structure of society and the activities of its members. The Division of the Social Sciences includes the disciplines of anthropology, economics, geography, history, management, political science, psychology, and sociology. In addition, its courses are incorporated into the interdisciplinary programs in Latin American Area Studies, Women’s Studies, and European Area Studies, and it offers a major in Liberal Arts for the Human Services and a social science major for teacher licensure. The social sciences coursework is oriented toward liberal education studies that prepare students to understand human beings in their social relationships.

Many of the social science disciplines encourage various kinds of fieldwork. Students intern on the local as well as state and federal levels as social workers, counselors, state legislative assistants, and administrative assistants in a variety of programs and organizations, including the Older Adults Program, welfare agencies, and group homes. A number of students have co-authored studies with faculty and have presented papers at professional conferences. Many students serve as research and teaching assistants. They have used primary research materials to recreate historical events for reports filed in the archives of the West Central Minnesota Historical Research Center. They go beyond the boundaries of the strictly “classroom” education to explore and gain firsthand experience with the professional tools of their field.

UMM’s Division of the Social Sciences has many resources that lend themselves well to establishing individual learning experiences. Among these are the West Central Minnesota Historical Research Center, Psychology Laboratory, Project on Fantasy, Model United Nations Program, and a wide variety of internship and field studies programs.

Close student-faculty rapport is an important aspect of social sciences study. Individualized attention is emphasized and students are encouraged to work on a one-to-one basis with professors to create a program that best suits their needs and interests.

Interdisciplinary Programs

European Studies (page 94)
Interdisciplinary Studies (page 108)
Latin American Area Studies (page 110)

UMM offers interdisciplinary majors, whose educational objectives are realized through an integration of courses from two or more disciplines, in European Studies, Latin American Area Studies, Liberal Arts for the Human Services, and Women’s Studies. Interdisciplinary course offerings not associated with an interdisciplinary major or minor involve in-depth material of two or more traditional academic disciplines or divisions, and some include subject material of a very broad nature that cannot properly be regarded as a part of a traditional discipline or division.
Course Numbers and Designators

Course numbers reflect the level of difficulty of a course. Generally, courses numbered 1xxx are for undergraduates in their first year of study, courses numbered 2xxx are for undergraduates in their second year of study, courses numbered 3xxx are for undergraduates in their third year of study, and 4xxx are for undergraduates in their fourth year of study. Some courses require prerequisite coursework or advanced class status for entrance while others do not. Students should plan their programs carefully to complete courses in the proper sequence.

The current Class Schedule contains information on course prerequisites, hours and days, and room assignments.

In connection with course numbers, disciplines and programs are identified by a two-, three-, or four-letter designator prefix (e.g., Ed for Education, Pol for Political Science, LAAS for Latin American Area Studies).

Degree Requirements and Course Descriptions

Symbols, Abbreviations, and Punctuation—The following symbols, abbreviations, and punctuation are used throughout the course descriptions in lieu of page footnotes:

- **1201-1202-1203** A hyphen between course numbers indicates a sequence of courses that must be taken in the order listed. The first course in the sequence is a prerequisite for the second course, and the second course in the sequence is a prerequisite for the third course.
- **1201, 1202, 1203** A comma between course numbers indicates a series of courses that may be entered any semester.
- **Honors** “Honors:” at the beginning of a course title indicates an Honors course.
- **f,s** Following a course number, indicates fall, spring semester.
- **Sci-L** Courses that meet specific general education requirements are designated as CE, CW, FL, M/SR, ArtP, Hist, SS, Hum, FA, Sci, Sci-L, HDiv, Envt, IP, E/CR. (See page 59 for more information about general education requirements.)
- **cr** Credits per semester.
- **#** Approval of the instructor is required for registration.
- **prereq** Before enrolling in some courses, students must have successfully completed certain other courses, or possess some particular qualification or class standing, known as a “prerequisite” (prereq). Students taking one or more courses as a prerequisite for a second course may register for the second course only after they have successfully completed the prerequisite course(s). If no prerequisites are listed, there are none for the course. A prerequisite listed by number only (e.g., prereq 3105) is in the same discipline as the course being described.
- **coreq** Students must be enrolled in the corequisite (coreq) course(s) at the same time. If no corequisites are listed, there are none for the course. A corequisite course listed by number only (e.g., coreq 3105) is in the same discipline as the course being described.
- **prereq or coreq** Students must either successfully complete the prerequisite course, OR may enroll in the pre/corequisite course concurrently.
- **,** In prerequisite and corequisite listings, a comma means “and.”
- **∆** Approval of the discipline offering the course is required for registration.
- **@** Approval at the college level (i.e., a form with appropriate signatures) is required for registration.

The most current version of all UMM course descriptions can be found online at <www.semesters.umn.edu/morcat/template/desn.cfm>.
Anthropology (Anth)

This discipline is in the Division of the Social Sciences. The anthropology curriculum, with support from sociology courses, focuses on providing a comparative understanding of the range of human cultures and societies throughout the world in both humanistic and social scientific terms. Anthropology applies this understanding to problems faced by different groups of people in the flux of the modern world. Courses meet the needs of liberal arts students and students planning to pursue anthropology at the graduate level.

Objectives—Anthropology courses are designed to provide an understanding of human beings and human society with respect to both biology and culture. Students are exposed to a broad historical and comparative framework within which to view the variety of human cultures. Coursework deals with concepts, techniques, and substantive knowledge of the branches of the field, e.g., physical anthropology, social and cultural anthropology, ethnology, archaeology, linguistics, and applied anthropology. (See Sociology for more information.)

Major Requirements
A minimum of 36 credits in anthropology and sociology, 28 of which must be in courses above 1xxx, including:
- Anth 1111—Introductory Cultural Anthropology
- Anth 2101—Physical Anthropology
- Anth 3411—Seminar in Anthropological Methodology
- Anth 4901—Seminar in Anthropological Theory
One course from:
- Anth 4993—Directed Study
- Anth 4994—Senior Honors Project

One course from:
- Anth 2301—Social Change and Development in Latin America
- Anth 2302—Women in Latin America
- Anth 2302H—Honors: Women in Latin America
- Anth 2404—Introduction to the Peoples of North America
- Anth 2451—Contemporary Native Americans
- Anth 2452—Native American Women
- Anth 3301—India and South Asia

Students develop a coherent program of study in consultation with their major adviser generally no later than the spring semester of their sophomore year. Up to four credits of D may be used to meet the major requirements if offset by a sufficient number of higher grades to meet the minimum requirement of a cumulative GPA of 2.33 in all courses included in the major.

Minor Requirements
A minimum of 24 credits in anthropology and sociology, 16 of which must be in courses above 1xxx, including:
- Anth 1111—Introductory Cultural Anthropology
- Anth 2101—Physical Anthropology
- Anth 3411—Seminar in Anthropological Methodology

Teacher Preparation Requirements
Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions
Note: Anth 2301, 2302, 2302H, 2451, 2452, 3300, and 3411 may also be taken for credit in Sociology.

Anth 1111f,s. Introductory Cultural Anthropology. (SS; 4 cr)
Varieties and range of human behavior as revealed through the comparative study of cultures throughout the world. Concepts developed by anthropologists to explain both the unity and diversity of humankind.

Anth 2101f. Physical Anthropology. (Sci-L; 4 cr; A-F only)

Anth 2301s. Social Change and Development in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 2301. Study of types of social change taking place in Latin American countries, including economic, political, social, religious, and culture change. Problems faced, consequences of development, and other types of changes are placed in their social and cultural contexts.

Anth 2302f. Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 2302. Study of social statuses of women in Latin American countries and the cultural norms influencing these statuses. Topics include class differences and the varied interests of women of different classes and ethnicities, women’s movements, economics and political conditions, religion and women, etc.

Anth 2302Hf. Honors: Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 2302H. In addition to regular coursework, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

Anth 2404. Introduction to the Peoples of North America. (HDiv; 4 cr; prereq 1111 or Soc 1101 or #)
An introduction to the societies and cultures of the peoples of North America (Canada, United States, Mexico) focusing upon the “traditional” (or pre-European contact) conditions.

Anth 2451s. Contemporary Native Americans. (HDiv; 4 cr; not offered 2003-04)
Same as Soc 2451. The cultures, problems, and resurgence of Native Americans in the 20th and 21st centuries. Government policies; education, religion, self-determination, family, gaming, etc.
Anth 2452s. Native American Women. (HDiv; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 2452. The role of Indian and mixed-blood women in a variety of North American Indian cultures, both traditional and contemporary, using ethnography, autobiography, life history, biography, and fiction. The interaction of Indian women and their cultures with the colonizing cultures of Western Europe and the United States.

Anth 2501s. Medical Anthropology—An Overview. (SS; 4 cr; prereq 1111 or Soc 1101 or #)
Utilizes an ecological perspective to explore cultural understandings of health and illness in a variety of societies in North America and abroad. Examines the effects of cultural and physical adaptation, nutrition, culture contact, and modernization on the health and well being of people.

Anth 3101f. The Anthropology of Religion. (SS; 4 cr; prereq 1111 or Soc 1101 or #; 4 addtl cr in Anth or Soc recommended; not offered 2003-04)
Comparative study of religion, magic, witchcraft, etc., in various parts of the world. Theories and concepts developed by anthropologists in dealing with religious phenomena in a cross-cultural perspective.

Anth 3201. Inequality Within and Among Nations. (Env't; 4 cr; prereq 1111 or Soc 1101 or #)
Examines the effect of the interaction of human groups with their extant technologies and their physical, social, and cultural environments, focusing particularly on how this interaction affects social inequality. The global hierarchy of nations.

Anth 3202. Culture and Biology. (Env't; 4 cr; prereq 1111 or Soc 1101 or #; not offered 2003-04)
Examines the interrelationships between biology and culture, using various cultures in the ethnographic record to assess the applicability of a range of biologically inspired hypotheses for aspects of human behavior and intelligence. The nature-nurture debate.

Anth 3301s. India and South Asia. (IP; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 3301. Examination of the cultures and societies of several South Indian countries with a primary focus on India. Topics include a brief history, economic and social issues and conditions, marriage and kinship practices, religions, regional differences, regional and international conflicts, and cultural and social change.

Anth 3411s. Seminar in Anthropological Methodology. (E/CR; 4 cr; prereq 1111 or Soc 1101, 4 addtl cr in Anth or Soc)
Same as Soc 3411. Exploration and evaluation of methods used in cultural anthropology; qualitative methods in sociology and anthropology; research ethics; design and execution of qualitative research project.

Anth 3501s. Critical Medical Anthropology. (HDiv; 4 cr; prereq 2501 or #; not offered 2003-04)
Analysis of the role of biomedicine as an increasingly dominant medical system in the world. The factors of race/ethnicity, gender, and social class in the ability to access, negotiate, and influence biomedical practice, beliefs, and research.

Anth 4901s. Seminar in Anthropological Theory. (4 cr; prereq 1111 or Soc 1101, 4 addtl cr in Anth or Soc)
Survey of the historical development and major contemporary fields of anthropological theory.

Anth 4993f, s, 2993f, s, 3993f, s, 4993f, s. Directed Study. (1-5 cr; repeatable; prereq @)

Anth 4994f, s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Art History (ArtH)
This discipline is in the Division of Humanities. Art history involves the study of ways the visual arts reflect and shape the world’s cultures.

Objectives—The purposes of the art history curriculum are to develop students’ understanding of some of the historical traditions in the visual arts, to teach students methods of analysis and interpretation of works of art, and to help students learn how to evaluate the quality of works of art. Students are encouraged to have direct contact with art by means of studio art courses, class field trips, gallery internships, and study abroad experiences.

Major Requirements
ArtH 1101—Principles of Art
ArtH 1111—Ancient and Medieval Art
ArtH 1121—Renaissance to Modern Art
ArtS 1101—Basic Studio Drawing I
ArtS 1102—Basic Studio Drawing II
ArtS 1103—Basic Studio 2-D Design
ArtS 1104—Basic Studio 3-D Design
ArtS 1105—Basic Studio Discussion I
ArtS 1106—Basic Studio Discussion II
24 additional credits in art history

Courses with grades of D may not be used to meet the major requirements. Required courses may not be taken S-N unless offered S-N only.

Minor Requirements
ArtH 1101—Principles of Art
ArtH 1111—Ancient and Medieval Art
ArtH 1121—Renaissance to Modern Art
12 additional credits in art history

Courses with grades of D may not be used to meet the minor requirements. Required courses may not be taken S-N unless offered S-N only.

Course Descriptions
ArtH 1101. Principles of Art. (FA; 4 cr)
An introduction to the theories, methods, and vocabulary of art history. Involves development of basic skills of research and of analysis and interpretation of individual works of art. Helps the student to understand the intrinsic as well as the historical-cultural meanings of works of art.

ArtH 1111. Ancient and Medieval Art. (FA; 4 cr)
Origins of art in the Paleolithic period; survey of monuments of ancient Mesopotamia, Egypt, Greece, and Rome as well as the Early Christian, Romanesque, and Gothic styles of Western Europe. Also treatment of non-western traditions in ancient and medieval periods.
ArtH 1121. Renaissance to Modern Art. (FA; 4 cr)
Survey of the major works of art of western Europe from 1400 to the present.

ArtH 3101f. Art of Ancient Greece. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
Beginning with the Bronze Age civilization of the Aegean, Minoan, Cycladic, and Mycenaean, this course follows the development of painting, sculpture, and architecture of ancient Greece, concentrating on the classical period in Athens and the Hellenistic period in the Mediterranean.

ArtH 3111s. Art of Ancient Rome. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
The Etruscan civilization in central Italy originating in the 7th century B.C.E. initiates the study of the development of Roman painting, sculpture, and architecture with concentration on the Imperial period of ancient Rome to the 4th century C.E.

ArtH 3121f. Medieval Italian Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
Painting, sculpture, and architecture of central Italy, notably Tuscany, from the 12th to 14th centuries, with attention to the influence of the mendicant monastic orders of the Franciscans and the Dominicans on the art of the period.

ArtH 3131s. Northern Renaissance Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
Painting, sculpture, and architecture of France, Belgium, the Netherlands, and Germany during the late 14th century to the mid-16th century, tracing the development of oil painting and interpreting the significant imagery of the period.

ArtH 3141f. 15th-Century Italian Renaissance Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
The renewal of interest in Classical art and humanistic learning as embodied in the painting, sculpture, and architecture of Italy. Tuscany, in central Italy, is the focus of this rebirth in Renaissance art and culture.

ArtH 3151s. High Renaissance Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
The art of the 15th and early 16th centuries in Italy, concentrating on the work of Leonardo da Vinci, Michelangelo, and Raphael to understand the classicizing principles of the time and place.

ArtH 3161f. 16th-Century European Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
A study of art during a period of cultural upheaval and radical change in Italy and northern Europe from 1520 to 1590.

ArtH 3171s. Baroque Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
A sociohistorical consideration of the stylistic and thematic diversity present in the works of such 17th-century masters as Caravaggio, Bernini, Velazquez, Rembrandt, and Vermeer.

ArtH 3181f. Rococo to Revolution. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
An examination of the visual arts in relation to social and historical developments in 18th-century Europe, such as the Enlightenment, the French Revolution, archaeological discoveries, the Grand Tour, and the rise of art criticism.

ArtH 3191s. American Art to 1900. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
A thematic exploration of the role of painting, sculpture, and the decorative arts in American society, from colonial times to 1900. Topics include the landscape and Manifest Destiny, American icons, folk art, and the representation of Native Americans, African Americans, and women.

ArtH 3201f. 19th-Century European Art through Post-Impressionism. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
Survey of major movements from Neoclassicism through Romanticism, Realism, and Impressionism to Post-Impressionism. Attention is given to iconographical and formal analysis as well as to the social conditions in which artists lived and worked.

ArtH 3211s. Early Modern Art: Symbolism to Surrealism. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
Survey of the major early modern movements from Symbolism through Cubism, Futurism, Expressionism, Constructivism, De Stijl, and the Bauhaus to Surrealism. Attention is given to theories of modern art as well as to formal and iconographical analyses and to the social conditions in which modern art was created and experienced.

ArtH 3221f. 20th-Century Art: 1945 to the Present. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
An examination of selected artists and movements from the 1940s through the present. Equal emphasis is given to the art and the social context in which it was made and experienced, and to modernist and postmodernist aesthetic and critical thought.

ArtH 3231f. History of Photography. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
Survey of European and American photography from the period of invention to the present. Major artists and movements are examined in the context of a variety of aesthetic, social, and technical issues.

ArtH 3241f. African American Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
Survey of African American art from colonial times to the present, focusing on social context and aesthetic and biographical issues.

ArtH 3251s. Pre-Columbian Arts of the Americas. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
The pre-colonial arts of the native peoples of Mexico, South America, and the southwestern United States from 1000 B.C.E. to the 16th century C.E.

ArtH 3261s. Chinese Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
Survey of Chinese arts from the Neolithic times to the 20th century, presented in the context of Chinese culture.

ArtH 3271s. The Art of Japan. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2004-05)
A survey of the art of Japan beginning with the introduction of Buddhism in the 6th century followed by a concentration on the Momoyama and Tokugawa periods from the 16th through the 19th centuries, emphasizing the art of printmaking.

ArtH 3281s. Women and Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; not offered 2003-04)
A historical survey of women’s roles as creators and patrons of the visual arts in Western European and American societies, from antiquity to the present.

ArtH 4000. Variable Topics in Art History. (FA; 2-4 cr; repeatable when topic changes; prereq any 1xxx ArtH course or jr status or #)
An art history seminar. See Class Schedule for topics.
ArtH 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq any 1xxx ArtH course or jr status, @)
Content and nature of the course to be determined by faculty and student consultation. May include individual research and writing, working in relation to the Art Gallery program, or travel and study.

ArtH 4994. Senior Honors Project. (1-5 cr; repeatable; prereq any 1xxx ArtH course or jr status; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the seniors honors project is one of the requirements for graduating from UMM "with honors."

Art, Studio (ArtS)
This discipline is in the Division of the Humanities. Studio art includes studies in the traditional areas of the visual arts as well as in contemporary concerns and techniques. Students are introduced to the skills of critical analysis of works of art and to a variety of media and approaches to their use. In addition, the discipline supports cocurricular activities, including the UMM Student Art Club, student exhibitions, and guest speakers.

Objectives—The goal of the studio art curriculum is to introduce students to the technical, conceptual, and communication skills necessary for activities in the visual arts and to help students understand the major traditions and the cultural significance of the visual arts. Studio courses serve the needs of students planning to pursue graduate studies in art, students interested in exploring their own creative potential as part of their general education, and students preparing for secondary school teaching.

Major Requirements
ArtS 1101—Basic Studio Drawing I
ArtS 1102—Basic Studio Drawing II
ArtS 1103—Basic Studio 2-D Design
ArtS 1104—Basic Studio 3-D Design
ArtS 1105—Basic Studio Discussion I
ArtS 1106—Basic Studio Discussion II
(it is recommended that the above courses be taken during the freshman year)
ArtS 2101—Second-Year Drawing I
ArtS 2102—Second-Year Drawing II
ArtS 3881—Junior Review
ArtS 4881—Senior Review
ArtS 4901—Senior Exhibit
A minimum of 12 credits in one of the following three major media and a minimum of 6 credits in another of the three major media:

Painting
ArtS 2301—Beginning Painting I
ArtS 2302—Beginning Painting II
ArtS 3300—Advanced Painting I
ArtS 3310—Advanced Painting II

Sculpture
ArtS 2401—Beginning Sculpture I
ArtS 2402—Beginning Sculpture II
ArtS 3400—Advanced Sculpture I
ArtS 3410—Advanced Sculpture II

A minimum of 6 credits of 2xxx or above in ArtS electives
4 credits of 1xxx in an ArtH course
8 credits of 3xxx or above in ArtH courses
Courses with grades of D may not be used to meet the major requirements. Required courses may not be taken S-N unless offered S-N only.

Minor Requirements
ArtS 1101—Basic Studio Drawing I
ArtS 1102—Basic Studio Drawing II
ArtS 1103—Basic Studio 2-D Design
ArtS 1104—Basic Studio 3-D Design
ArtS 1105—Basic Studio Discussion I
ArtS 1106—Basic Studio Discussion II
One 12-credit sequence in one major medium or two 6-credit sequences in two different media:

Printmaking
ArtS 2201—Beginning Printmaking I
ArtS 2202—Beginning Printmaking II
ArtS 3200—Advanced Printmaking I
ArtS 3210—Advanced Printmaking II

Painting
ArtS 2301—Beginning Painting I
ArtS 2302—Beginning Painting II
ArtS 3300—Advanced Painting I
ArtS 3310—Advanced Painting II

Sculpture
ArtS 2401—Beginning Sculpture I
ArtS 2402—Beginning Sculpture II
ArtS 3400—Advanced Sculpture I
ArtS 3410—Advanced Sculpture II
ArtS 2101—Second-Year Drawing I
ArtS 2102—Second-Year Drawing II
or one 1xxx ArtH course
Participation in ArtS 4901—Senior Exhibit is encouraged but not required
Courses with grades of D may not be used to meet the minor requirements. Required courses may not be taken S-N unless offered S-N only.

Teacher Preparation Requirements
Students seeking teaching licensure in visual arts K-12 should refer to the Education, Secondary (SeEd) section of this catalog.
Course Descriptions

ArtS 1050f. Beginning Ceramics. (ArtP; 3 cr; repeatable to 6 cr)
Personal expression through the medium of clay. Topics include forming methods using stoneware and porcelain (hand building and wheel techniques), glazing, the nature of clay, glaze chemistry, firing, and kilns.

ArtS 1070f-1080s. First-Year Drawing. (ArtP; 3 cr; repeatable to 6 cr; open to nonmajors; should not be taken by students who have completed Basic Studio [see Second-Year Drawing]) For nonmajors with little or no previous experience in drawing. Exploration of line through contour and gesture, continuing with studies of value, texture, and space. Contemporary and traditional modes of drawing explored using a variety of materials.

ArtS 1101 through 1106. Basic Studio. (Coreq 1101, 1103, 1105 in fall or coreq 1102, 1104, 1106 in spring; one 1xxx ArtH course recommended during the same year)
Preparation for advanced work in studio art; four related parts must be taken concurrently and in sequence. Basic Studio Drawing: basic exercises of drawing, use and exploration of materials and methods in line and form development, problems of spatial representation. Basic Studio 2-D Design: elements of two-dimensional design and color theory, introduction to painting and printmaking. Basic Studio 3-D Design: elements of three-dimensional design, introduction to sculpture. Basic Studio Discussion: theories, philosophy, history of visual arts, contemporary trends in art, selected readings.

ArtS 1101f-1102s. Basic Studio Drawing I-II. (ArtP; 2 cr per sem)

ArtS 1103f. Basic Studio 2-D Design. (ArtP; 2 cr)

ArtS 1104s. Basic Studio 3-D Design. (ArtP; 2 cr)

ArtS 1105f-1106s. Basic Studio Discussion I-II. (ArtP; 1 cr per sem)
The four parts of Basic Studio must be taken concurrently.

ArtS 2000. Variable Topics in Digital Art. (ArtP; 1-4 cr; repeatable when topic changes; prereq major or minor or #; offered when feasible)
Explore ideas and techniques related to digital media as an art form not covered by the regular curriculum.

ArtS 2050s. Advanced Ceramics. (ArtP; 3 cr; repeatable; prereq 1050 or #; offered when feasible)
For students who have a working knowledge of basic forming and glazing techniques. Emphasis on advanced hand building and wheel techniques, critiques, glaze experiments, and firing. Assigned projects for the course may vary from semester to semester.

ArtS 2101f. Second-Year Drawing I. (ArtP; 3 cr; prereq major or minor, 1070, 1080 or #)
Via the study of human anatomy, the course increases and improves students' knowledge and skill in drawing as a traditional art form and as a preparation for work in other media.

ArtS 2102s. Second-Year Drawing II. (ArtP; 3 cr; prereq 2101 recommended)
Allows students to use skills previously gained that relate to drawing the human form in a more individual way, integrates those skills with new ideas, and explores experimental drawing directions.

ArtS 2201f-2202s. Beginning Printmaking I-II. (ArtP; 3 cr per sem; prereq major or minor or # for 2201 for nonmajor jrs and srs)
Study of and practice in various methods of printmaking: application of drawing skills, color, composition, and personal expression to printmaking techniques.

ArtS 2301f, 2302s. Beginning Painting I-II. (ArtP; 3 cr per sem; prereq major or minor or # for nonmajor jrs and srs)
The development of painting as a means of artistic expression including basic technical, material, and formal compositional problems.

ArtS 2401f-2402s. Beginning Sculpture I-II. (ArtP; 3 cr per sem; prereq major or minor or # for 2401 for nonmajor jrs and srs)
Exploration of sculpture as a means of artistic expression, including an introduction to the planning and construction of three-dimensional forms using both traditional and contemporary techniques. A two-semester sequence provides experience with a variety of materials.

ArtS 2500. Photography. (ArtP; 3 cr; repeatable; prereq major or minor or #; offered when feasible)
Introduction to photography as an art medium. Composition and artistic expression explored through basic photographic techniques. Must have a 35 mm camera.

ArtS 3000. Variable Topics in Studio Art. (ArtP; 1-4 cr; repeatable; prereq major or minor or #; offered when feasible)
Exploration of areas of particular interest or timeliness not covered by the regular curriculum.

ArtS 3100f. Third-Year Drawing I. (ArtP; 3 cr; repeatable; prereq 2101-2102 recommended)
Continued development of the skills and understandings required by traditional problems of drawing.

ArtS 3110s. Third-Year Drawing II. (ArtP; 3 cr; repeatable; prereq 2101-2102, 3100 recommended)
Emphasizes self-direction, experimental approaches and materials, and study of contemporary concepts.

ArtS 3200f-3210s. Advanced Printmaking I-II. (ArtP; 3 cr; repeatable; prereq 2202)
Further exploration of printmaking techniques and skills as a means of artistic expression. Students may register for either semester; however, a year’s continuous work is recommended.

ArtS 3300f-3310s. Advanced Painting I-II. (ArtP; 3 cr; repeatable; prereq 2302 or #)
Further development of painting as a means of artistic expression. Students may register for either semester; however, a year’s continuous work is recommended.

ArtS 3400f-3410s. Advanced Sculpture I-II. (ArtP; 3 cr; repeatable; prereq 2402)
Further development of sculpture as a means of artistic expression. Students may register for either semester; however, a year’s continuous work is recommended.

ArtS 3881s. Junior Review. (0 cr; prereq jr studio art major; S-N only)
Review by the studio art and art history faculty of the student’s work to date. Time of review and work presented decided in consultation with the adviser and the instructor of the major studio area. Normally taken spring semester.
Division Structure and Course Descriptions

ArtS 4881f. Senior Review. (0 cr; prereq sr studio art major; S-N only)
Review by the studio art and art history faculty of the student’s work, concentrating on the major media and including any work designated at the Junior Review. Time of review and work presented decided in consultation with the adviser and the instructor of the major studio area. Normally taken fall semester.

ArtS 4901s. Senior Exhibit. (0 cr; prereq sr studio art major or minor; S-N only)
Students consult with their adviser and the faculty member facilitating the exhibit for details.

ArtS 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)
ArtS 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Continuing Education Courses
ArtS 1039. CE: Ceramics I. (ArtP; 3 cr; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)
Exploration in personal expression through the medium of clay. Emphasis is on handbuilding and throwing techniques using stoneware and porcelain. Other topics include clay types and their origin, decorating with slips and glazes, basic firing principles, and the role of the potter in society.

ArtS 1040. CE: Ceramics II. (ArtP; 3 cr; prereq 1039 or 1050; repeatable with @; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)
Ceramics II is intended for any student who has taken either Ceramics I or has a working knowledge of basic forming and glazing techniques. Students are expected to work toward higher standards of both technique and design. Assigned topics for this course may vary from semester to semester.

ArtS 1500. CE: Beginning Photography. (ArtP; 3 cr; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)
This course is intended for the general student with little or no previous experience in artistic expression. It is an introduction to black and white photography as an art form including processes, materials, brief history, and critical skills to evaluate photographs. Students must provide their own 35 mm cameras.

Biology (Biol)
This discipline is in the Division of Science and Mathematics.

Objectives—The biology curriculum is designed to provide students with biological knowledge and to develop scientific skills as part of their liberal arts education. It prepares students for graduate or professional programs and for careers such as secondary biology education, government service, or private sector employment. Included in those skills are the abilities to conduct and interpret scientific research and to successfully communicate scientific information both verbally and in writing. The faculty believe these objectives can best be attained through a balanced core curriculum in biology and a diverse array of elective coursework, both of which include active lab and field experiences.

Major Requirements
Biol 1101—Freshman Seminar in Biological Principles
Biol 2101—Evolution of Biodiversity
Biol 2111—Cell Biology
Biol 3101—Genetics
Biol 3121—Molecular Biology
Biol 3131—Ecology
Biol 3701—Biological Communications
Biol 4901—Senior Seminar
Chem 1101—General Chemistry I
Chem 1102—General Chemistry II
Chem 2301—Organic Chemistry I
Chem 2302—Organic Chemistry II
Chem 2311—Organic Chemistry Lab I
Math 1021—Survey of Calculus
or Math 1101—Calculus I
Stat 1601—Introduction to Statistics
or Stat 2601—Statistical Methods
at least 12 additional credits from:
Biol numbered 4000-4500
or at least 8 credits from Biol numbered 4000-4500 plus one course from:
Psy 3211—Biological Psychology
or Psy 3201—Comparative Psychology
or Geol 3111—Introduction to Invertebrate Paleontology

Required courses may not be taken S-N unless offered S-N only. Up to 5 credits of coursework with a grade of D may be used to meet the major requirements if offset by an equivalent number of credits of A or B in the major.

Biology majors are advised to complete their chemistry and mathematics requirements as early as possible. All majors should have their programs approved by a biology adviser by the beginning of their junior year.

Minor Requirements
Biol 1101—Freshman Seminar in Biological Principles
Biol 2101—Evolution of Biodiversity
Biol 2111—Cell Biology
Two additional Biol courses numbered 3000-4500 or one additional Biol course numbered 3000-4500 plus either:
Psy 3211—Biological Psychology
or Psy 3201—Comparative Psychology
or Geol 3111—Introduction to Invertebrate Paleontology

Courses required for the minor may not be taken S-N. Up to 5 credits of coursework with a grade of D may be used to meet the minor requirements if offset by an equivalent number of credits of A or B in the major.
Teacher Preparation Requirements
Students seeking teaching licensure in life science 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

**Biol 1000. Variable Topics In Biological Thought.** (See specific topics for general ed categories; 1-5 cr; repeatable when topic changes; no elective cr for biol majors or minors; offered when feasible)
Introduction to scientific method, illustrated by study of both classical and modern literature in biology. Some of the properties of and challenges to organisms, with illustrations chosen from general or specific topics announced in advance. (lect and/or lab)

**Biol 1001. Biological Rhythms.** (Sci-L; 4 cr; no elective cr for biol majors or minors; offered when feasible)
An examination of biological principles through the dimension of time. In particular, short to long cycling behaviors in humans, microorganisms, and chemical systems are studied. (two 65-min lect, one 120-min lab)

**Biol 1051f. Wildlife Biology.** (Sci-L; 4 cr; no elective cr for biol majors or minors; offered even-numbered yrs)
Biological principles and practices illustrated through studies of North American wildlife. Wildlife taxonomy, identification, migration and dispersal, ecological relationships, contemporary problems associated with human activities. (two 65-min lect, one 120- or 180-min lab or field study)

**Biol 1052f,s. Conservation Biology.** (Sci-L; 4 cr; no elective cr for biol majors or minors; offered when feasible)
Survey of topics in conservation biology, with emphasis on topics that have created controversy and debate: loss of biodiversity, endangered species preservation and management, habitat conservation, environmental degradation, and sustainable development. (two 65-min lect, one 120- or 180-min lab or field study)

**Biol 1101f,s. Freshman Seminar in Biological Principles.** (Sci; 3 cr; prereq biol major/minor or any health sciences preparitional program or ElEd or SeEd major with middle school science specialties or #)
Basic principles of biology, including cellular structure, organismal function, inheritance, and evolution. Emphasizes scientific methods and the biological literature. Includes small group discussions. First course of the biology major sequence. (two 65-min lect and discussion)

**Biol 2101s. Evolution of Biodiversity.** (Sci-L; 4 cr; prereq 1101 or #)
Analysis of evolutionary trends using historical and contemporary evidence. Principles of classification and phylogenetic reconstruction. Includes laboratory survey of the major groups of organisms. (two 65-min lect, one 120-min lab)

**Biol 2102f. Human Anatomy.** (3 cr; prereq soph)
Same as WSS 2102. Structure of human systems at their organ and cellular levels. (one 100-min lect, one 120-min lab)

**Biol 2111f. Cell Biology.** (Sci-L; 4 cr; prereq 1101, coreq Chem 1102 or #)
Cell structure and function. Includes topics pertaining to the chemistry, physiology, structure, and reproduction of plant and animal cells. (three 65-min lect and one 120-min lab)

**Biol 3101s. Genetics.** (Sci-L; 4 cr; prereq 2111 or #)
Principles and mechanisms of inheritance and variation, including cytological, organismal, and population genetics; mechanisms of evolution; and the genetic problems of humans. (two 65-min lect, one 120-min lab)

**Biol 3121s. Molecular Biology.** (Sci-L; 5 cr; prereq 2111, prereq or coreq 3101, Chem 2301 or #)
Principles and mechanisms of DNA function, protein synthesis, and gene regulation in prokaryotes and eukaryotes. Genetic engineering and evolution at the molecular level. (two 100-min lect, 180-min lab)

**Biol 3131f. Ecology.** (Sci-L; 4 cr; prereq 2101 or #)
Basic principles and models of population biology, community structure and function, and ecosystem dynamics. Lab exercises emphasize fieldwork, techniques for characterizing local plant and animal communities, and experimental investigation of topics such as competition and behavioral ecology. (two 65-min lect, one 180-min lab and field study; weekend field trip required)

**Biol 3701f,s. Biological Communications.** (1 cr; prereq 2101, 2111, #)
Preparation of an extensive literature review paper on a biological topic of the student’s choice.

**Biol 4000. Variable Topics In Advanced Biology.** (See specific topics for general ed categories; 1-5 cr; repeatable when topic changes; prereq depends on topic; offered when feasible)
Treatment of advanced topics in biology not included in the regular curriculum. (lect, lect/lab, or lab only depending on topic)

**Biol 4003. Neurobiology.** (Sci-L; 4 cr; prereq 2111)
Survey of general principles of neuronal function and formation. Emphasis on comparative aspects of simple nervous systems.

**Biol 4102s. Human Physiology.** (Sci; 4 cr; prereq 2111 or #; offered even-numbered yrs)
Function of human systems at their organ, cellular, and molecular levels. (three 65-min lect)

**Biol 4111s. Microbiology.** (Sci-L; 4 cr; prereq 2111, prereq or coreq 3101 or #)
Lectures, discussions, and lab experiments on the morphology, physiology, genetics, taxonomy, and ecology of microorganisms, with an emphasis on prokaryotic microbes and viruses. (two 65-min lect, one 180-min lab)

**Biol 4121s. Herpetology.** (Sci-L; 4 cr; prereq 2101; offered odd-numbered yrs)
Survey of amphibians and reptiles, including their evolution, systematics, identification, behavior, ecological relationships, and contemporary problems associated with human activities. (two 65-min lect, one 180-min lab and field studies)

**Biol 4131f. Vertebrate Natural History.** (Sci-L; 4 cr; prereq 2101; offered odd-numbered yrs)
Survey of vertebrates, including their evolution, systematics, and ecological relationships. (two 65-min lect, one 180-min lab or field study)

**Biol 4141f. Comparative Invertebrate Zoology.** (Sci-L; 4 cr; prereq 2101 or #; offered when feasible)
Comparative study of the structure, function, natural history, development, and evolution of invertebrate animals. (two 65-min lect, 180-min lab)
### Division Structure and Course Descriptions

**Biol 4151f. Entomology.** (Sci-L; 4 cr; prereq 2101 or #; offered even-numbered yrs)
- Structure, life histories, habits, and classification of common families of insects, including their economic significance. (two 65-min lect, 180-min lab; weekend field trip required)

**Biol 4161f. Evolution.** (Sci; 4 cr; prereq 2101, 2111 or #; 3101 recommended; offered even-numbered yrs)
- Survey of the history, evidence, and mechanisms of organic evolution. (two 100-min lect)

**Biol 4171s. Plant Systematics and Evolution.** (Sci-L; 4 cr; prereq 2101, 2111 or #; 3101 recommended; offered odd-numbered yrs)
- Introduction to the identification and phylogenetics of land plants. Survey of the major trends in plant evolution, including morphological and life history variation among major plant taxa. Use of keys for local flora emphasized. (two 65-min lect, one 180-min lab and field study)

**Biol 4181f. Developmental Biology.** (Sci-L; 4 cr; prereq 2111, 3101 recommended; offered even-numbered yrs)
- Survey of general concepts in developmental biology, emphasizing molecular mechanisms of positional information, pattern formation, and cellular interactions. Stresses comparative aspects of developmental processes, and the role of development in evolution. (two 65-min lectures, one 180-min lab)

**Biol 4191f. Freshwater Biology.** (Sci-L; 4 cr; prereq 2101, 2111 or #; offered odd-numbered yrs)
- Structure, function, and biota of freshwater ecosystems, including lakes, streams and wetlands. Lab emphasizes independent research and field study in local habitats. (two 65-min lect, one 180-min lab; weekend field trip required)

**Biol 4211f. Biochemistry.** (Sci; 4 cr; prereq 2111, Chem 2302 or #)
- Structures, functions, and biochemical transformations of proteins, carbohydrates, nucleic acids, and lipids. (three 65-min lect) Optional lab offered. See Biol 4611.

**Biol 4301. Plant Biology.** (Sci-L; 4 cr; prereq 2101, 2111 or #; offered when feasible)
- Descriptive and experimental study of plants. Anatomy, development, physiology, secondary compounds, evolution, human uses of plants. (two 65-min lect, one 180-min lab)

**Biol 4311f. Conservation Genetics.** (Sci-L; 4 cr; prereq 3101 or #; Stat 1601 or 2601 or 2611 recommended; offered even-numbered yrs)
- Introduction to theory of population differentiation and gene flow; applications to managing and recovering rare species. Adaptive and neutral models, linkage disequilibria, effective population size, inbreeding depression, population genetic structure. Labs use computers to model genetic changes in populations and analyze genetic structure. (two 100-min lect, one 120-min lab)

**Biol 4321s. Animal Physiology.** (Sci-L; 4 cr; prereq 2111; offered odd-numbered yrs)
- Functions of animal structures as they relate to coping with different environmental situations. (two 65-min lect, one 120-min lab)

**Biol 4331. Global Change Ecology.** (Sci; 4 cr; prereq 3131 or #; offered even-numbered yrs)
- Global cycles of carbon, water, and nutrients. Advanced consideration of community and ecosystem structure and function. Analysis of natural and human drivers of change in biological systems, including use of quantitative methods and computer models.

**Biol 4600. Practicum in Biology.** (1-2 cr; repeatable to 4 cr; prereq ∆; no elective cr for bio maj ors or minors; S-N only)
- Supervised experience of selected activities; lab preparation/management, greenhouse care/management, animal care, curating museum/herbarium collections. Repeatable with different projects or activities.

**Biol 4611f. Biochemistry Lab.** (1 cr; prereq or coreq 4211 or #)
- Experiments using the major separation and analytical techniques of biochemistry, including centrifugation, chromatography, electrophoresis, and spectrophotometry. (one 180-min lab)

**Biol 4901f. Senior Seminar.** (1 cr; required of all sr biology majors; prereq 3701, sr or #; full year course begins fall sem)
- Seminar on selected biological topics.

**Biol 4993fs. Directed Study.** (1-5 cr; repeatable; prereq @)

**Biol 4994. Senior Honors Project.** (1-5 cr; repeatable; prereq participation in Honors Program, @)
- A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

### Chemistry (Chem)

This discipline is in the Division of Science and Mathematics. Coursework in chemistry spans the four traditional areas of analytical, inorganic, organic, and physical chemistry. Ancillary areas such as biochemistry and geochemistry are available through interdisciplinary coursework with the biology and geology disciplines. Although majors concentrate primarily on chemistry, they must also do work in beginning physics and calculus. The beginning chemistry courses satisfy the physical sciences component of the general education requirements.

Chemistry majors, particularly in upper division courses, do hands-on work with chemical instrumentation and use computers in both software and hardware applications. The faculty prides itself on working closely with its students on undergraduate research projects, directed studies, and undergraduate teaching assistantships. In addition, chemistry majors are encouraged to complete summer research internships at university and industrial labs or at other research facilities, both locally and nationally.

Study in chemistry is the prerequisite for many preprofessional programs at UMM. Students who also do work in the Division of Education can obtain licensure in secondary education. About two-thirds of UMM’s chemistry majors pursue postgraduate work toward a doctoral degree—most of them in chemistry, many in medicine, but also in other health-related fields, such as veterinary medicine and dentistry,
in biological fields related to chemistry, and in a variety of other fields. The other third directly enter the job market upon graduation, primarily in the chemical industry or in secondary education.

Objectives—The chemistry curriculum focuses on the structure of matter and the conditions required for material change. It is designed to prepare students for graduate study in chemistry or related fields or for a career in the chemical industry or in secondary teaching.

Major Requirements
Students may complete a major in chemistry through one of two tracks—the standard chemistry major or the chemistry major with a biochemistry subfield.

All students must take the following core courses:
Chem 1101—General Chemistry I
Chem 1102—General Chemistry II
Chem 2301—Organic Chemistry I
Chem 2302—Organic Chemistry II
Chem 2311—Organic Chemistry Lab I
Chem 2321—Introduction to Research
Chem 3101—Analytical Chemistry
Chem 3501—Physical Chemistry I
Chem 4901—Chemistry Seminar I
Chem 4902—Chemistry Seminar II
Math 1101—Calculus I
Math 1102—Calculus II
Phys 1101—General Physics I
Phys 1102—General Physics II

Standard chemistry major requirements
Chem 3502—Physical Chemistry II
Chem 3511—Physical Chemistry Lab

and two courses from:
Chem 3111—Instrumental Analysis
Chem 3701—Inorganic Chemistry
Chem 3801—History of Chemistry
Chem 3811—Macromolecules
or other Chem courses numbered 43xx–47xx

Chemistry major with biochemistry subfield requirements
Biol 1101—Freshman Seminar in Biological Principles

Chem 2301f. Organic Chemistry I. (Sci-L; 4 cr; prereq Math 0901 or placement beyond Math 0901 using ACT/placement exam score)
Scientific method, measurements, nomenclature, stoichiometry, atomic and molecular structure, chemical periodicity, and properties of common elements and ions. Development of scientific reasoning and problem-solving skills. Lab exercise concomitant with these topics. (3 hrs lect, 3 hrs lab)

Chem 2302s. Organic Chemistry II. (Sci; 3 cr; prereq 2301, coreq 2321 or # for chem majors)
Continuation of topics from Chem 2301; spectroscopy; chemistry of polyenes, aromatic systems, and amines; enol and enolate chemistry; free-radical chemistry; retrosynthetic analysis; special topics. (3 hrs lect)

Chem 2311f. Bioorganic Chemistry I. (Sci; 4 cr; prereq 1102, coreq 2311)
Introduction to the structure and reactivity of organic molecules; nomenclature and functional groups; stereochemistry; mechanisms of substitution and elimination pathways; physical organic chemistry; introduction to synthetic strategy; fundamentals of spectroscopic techniques. (4 hrs lect)

Chem 2312s. Organic Chemistry Lab I. (1 cr; coreq 2301 or #) Development of lab techniques in organic chemistry; experimental problem solving. (3 hrs lab)

Chem 2311f. Organic Chemistry Lab I. (1 cr; coreq 2301 or #) Experiments in organic chemistry; synthesis and experimental design; spectral analysis. (3 hrs lab)
Chem 2321s. Introduction to Research. (Sci-L; 2 cr; coreq 2302 or #)
Interdisciplinary approach to experiment design and analysis of data. Synthesis of organic, organometallic, and/or inorganic compounds, with emphasis on purification and characterization using instrumental methods. Instruction in use of the scientific literature and scientific report writing. (6 hrs lab)

Chem 3101f. Analytical Chemistry. (Sci-L; 4 cr; prereq 1102)
The application of chemical equilibria to chemical analysis with emphasis on the fundamental quantitative aspects of analytical chemistry. Acid-base, oxidation-reduction, and complexometric titrations, introduction to electrochemical and spectrophotometric analyses and separations. (3 hrs lect, 3 hrs lab)

Chem 3111. Instrumental Analysis. (Sci-L; 4 cr; prereq 3101)
Principles of chemical instrumentation and instrumental methods of analysis; extensive lab work using chromatographic, spectrophotometric, and electrochemical methods of analysis. (2 hrs lect, 2 hrs lab)

Chem 3501f. Physical Chemistry I. (Sci; 4 cr; prereq 1102, Phys 1101, Math 1102 or #)

Chem 3502s. Physical Chemistry II. (Sci; 4 cr; prereq 3501, coreq 3511 or # for chem majors)
Introduction to quantum theory. Atomic and molecular structure. Group theory. Introduction to statistical mechanics. Chemical dynamics. Topics drawn from the liquid and solid states, advanced kinetics, electrochemistry, and surfaces. (4 hrs lect)

Chem 3511s. Physical Chemistry Lab. (1 cr; coreq 3502)
Lab experiments to illustrate physico-chemical principles and to develop skills in data collection, analysis, and interpretation and in report writing. (3 hrs lab)

Chem 3700. Inorganic Chemistry. (Sci; 4 cr; prereq 3501 or #)
The periodic table; models of structure and bonding of main group elements and transition metals, nomenclature, symmetry, and bonding theory of coordination compounds. (4 hrs lect)

Chem 3801f. History of Chemistry. (Sci; 4 cr; prereq 2301 or #; offered odd-numbered yrs)

Chem 3811f. Macromolecules. (Sci; 4 cr; prereq 2302, 3501 or #; offered even-numbered yrs)

Chem 4351s. Bioorganic Chemistry. (Sci; 4 cr; prereq 2302, Biol 4211; offered odd-numbered yrs)
Discussion of the theory of enzyme catalysis and catalytic antibodies, experimental determination of catalytic mechanisms for a variety of organic reactions in biological systems, and elucidation of biosynthetic pathways. Involves extensive reading in the primary literature. (4 hrs lect)

Chem 4352s. Synthesis. (Sci; 4 cr; prereq 2302; offered even-numbered yrs)
Study of the preparation of biologically active molecules, emphasizing the application of transition metal chemistry to modern synthetic methods. (4 hrs lect)

Chem 4551f. Theoretical Chemistry. (Sci; 4 cr; prereq 3502 or #; offered when feasible)
Quantum theory of molecules. Statistical thermodynamics; Gibbsian ensembles; applications. (4 hrs lect)

Chem 4552s. Molecular Spectroscopy. (Sci; 4 cr; prereq 2311, 3101 or #; offered even-numbered yrs)
Interaction of molecules and electromagnetic radiation. Spectroscopic determination of molecular structure. Operation of spectrometers and spectrophotometers. (4 hrs lect)

Chem 4751. Advanced Inorganic Chemistry. (Sci; 4 cr; prereq 3701 or #)
Structure and reactions of coordination compounds, inorganic cages and clusters, lanthanide and actinide series. (4 hrs lect)

Chem 4901f. Chemistry Seminar I. (0 cr; required of all chem majors; may not count toward chem minor; prereq 2321; S-N only)
Presentations by faculty, guest speakers, and students on topics of current research interest. Students are required to present one seminar for the Chem 4901-4902 sequence.

Chem 4902s. Chemistry Seminar II. (1 cr; required of all chem majors; may not count toward chem minor; prereq 4901; S-N only)
Continuation of Chemistry Seminar I.

Chem 1993s, 2993s, 3993s, 4993s. Directed Study. (1-5 cr; repeatable; prereq @)
Chem 4994s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

### Computer Science (CSci)

This discipline is in the Division of Science and Mathematics.

**Objectives**—The computer science curriculum is designed to provide students with a strong foundation in the diverse and rapidly changing field of computing. The science of computing is emphasized with a focus on fundamental principles and the formal underpinnings of the field. Students are encouraged to use and supplement their formal education through a variety of research opportunities, participation in discipline colloquia and student/professional organizations, and pursuit of internships or international studies opportunities. Students who successfully complete the major are qualified to enter the computing field as professionals or to pursue graduate studies.

**Major Requirements**

CSci 1301-1302—Problem Solving and Algorithm Development I-II
CSci 2101—Data Structures
CSci 2901—Seminar I
CSci 3401—Models of Computing Systems
CSci 3501—Algorithms and Computability
CSci 3601—Software Design and Development
CSci 4901—Seminar II or equivalent experience approved by the discipline.
10 credits from CSci 44xx, 45xx, and 46xx with a minimum of 4 credits in two of the areas and 2 credits in the third area (see <www.mrs.umn.edu/academic/csci/courses.php> for information on specific offerings in these areas)
12 credits from Math or Stat numbered 1101 and above (not to include Stat 1601 or Math 2211)
8 credits from Biol, Chem, Geol, or Phys
No more than two courses with a grade of D, offset by an equivalent number of credits of A or B grades, may be used to meet the requirements for a computer science major.

Minor Requirements
CSci 1301-1302—Problem Solving and Algorithm Development I-II
CSci 2101—Data Structures
Two courses chosen from:
CSci 3401—Models of Computing Systems
CSci 3501—Algorithms and Computability
CSci 3601—Software Design and Development
4 credits from Math or Stat numbered 1020 and above (not to include Math 2211)
No more than two courses with a grade of D, offset by an equivalent number of credits of A or B grades, may be used to meet the requirements for a computer science minor.

Course Descriptions
CSci 1001. Introduction to Computer Science. (M/SR; 2 cr)
Basic hardware and software concepts, elementary data representation, problem solving techniques, algorithm development, and current information processing and network applications.

CSci 1001H. Honors: Introduction to Computer Science. (M/SR; 2 cr; prereq participation in Honors Program or #)
Basic hardware and software concepts, elementary data representation, problem solving techniques, algorithm development, and current information processing and network applications.

CSci 1211. Introduction to Problem Solving with Java. (M/SR; 4 cr; prereq Math 1101)
Problem solving and algorithm design using object-oriented programming techniques. Introduction to the Java programming language and its use in implementing algorithms to solve scientific problems. Testing and debugging of software with emphasis on the complexity of modern software systems.

CSci 1301. Problem Solving and Algorithm Development I. (M/SR; 4 cr)
Introduction to different problem solving approaches, major programming paradigms, hardware, software, and data representation. Study of the functional programming paradigm, concentrating on recursion and inductively-defined data structures. Simple searching and sorting algorithms.

CSci 1302. Problem Solving and Algorithm Development II. (M/SR; 4 cr)
Basic proof techniques, propositional and predicate logic, induction and invariants, program correctness proofs, simple Big-Oh analysis of algorithms, set theory, introductory graph theory, matrices, and recurrence relations.

CSci 2101. Data Structures. (M/SR; 5 cr; prereq 1301, 1302)
Introduction to data types, including stacks, queues, trees, and graphs; implementation of abstract data types, using object-oriented techniques and reusable libraries. (4 hrs lect, 2 hrs lab)

CSci 2901. Seminar I. (1 cr; prereq 1301, 1302; S-N only)
Familiarizes students with literature in the field, focusing on ethical issues in computing. Discussion and group work. Students analyze various articles or similarly published works, synthesize their contents, make formal presentations, and attend and evaluate the presentations of their peers.

CSci 3401s. Models of Computing Systems. (M/SR; 5 cr; prereq 2101)
Basics of computing systems, models of networks and operating systems. Discussion of deadlock, scheduling, protection and security, data management, inter-computer communication, the OSI network model, and how the three lower layers are instantiated in TCP/IP. (4 hrs lect, 2 hrs lab)

CSci 3501f. Algorithms and Computability. (M/SR; 5 cr; prereq 2101)
Models of computation (Turing machines, lambda calculus, deterministic and non-deterministic machines); approaches to the design of algorithms, determining correctness and efficiency of algorithms; complexity classes, NP-completeness, approximation algorithms. (4 hrs lect, 2 hrs lab)

CSci 3601. Software Design and Development. (M/SR; 5 cr; prereq 2101)
Design and implementation of medium- and large-scale software systems. Principles of organizing and managing such designs and implementations throughout their lifetime. Designing for modularity and software reuse; use of libraries. Dynamics of working in groups. Group lab work on a substantial software project. (4 hrs lect, 2 hrs lab)

CSci 4400. Variable Topics in Computing Systems. (M/SR; 2 cr; repeatable when topic changes; prereq 2901, 3401 or #; offered when feasible)
Current developments in computer networks, operating systems, system programming, computer architecture, parallel and distributed architectures, databases, artificial intelligence, graphics, approximation algorithms, artificial life, computer music, etc.

CSci 4450. Variable Topics in Computing Systems. (M/SR; 4 cr; repeatable when topic changes; prereq 3401; offered when feasible)
Topics in computing systems, such as computer networks, operating systems, system programming, computer architecture, parallel and distributed architectures, databases, artificial intelligence, graphics, approximation algorithms, artificial life, computer music.

CSci 4500. Variable Topics in Theory. (M/SR; 2 cr; repeatable when topic changes; prereq 2901, 3501 or #; offered when feasible)
Current developments in analysis of algorithms, theory of computation, distributed algorithms, parallel algorithms, approximation algorithms, graph theory, computational geometry, NP-completeness, etc.
Division Structure and Course Descriptions

CSci 4550. Variable Topics in Theory. (M/SR; 4 cr; repeatable when topic changes; prereq 3501; offered when feasible)
Topics in theory, such as analysis of algorithms, theory of computation, distributed algorithms, parallel algorithms, approximation algorithms, graph theory, computational geometry, and NP-completeness.

CSci 4600. Variable Topics in Programming and Languages. (M/SR; 2 cr; repeatable when topic changes; prereq 2901, 3601 or #; offered when feasible)
Current developments in software engineering, requirements analysis, specification, software architectures, formal methods, program derivation, testing, parallel and distributed languages, parsing, optimization techniques, compiling, etc.

CSci 4650. Variable Topics in Programming and Languages. (M/SR; 4 cr; repeatable when topic changes; prereq 3601; offered when feasible)
Topics in programming languages and program translation, such as software engineering, requirements analysis, specification, software architectures, formal methods, program derivation, testing, parallel and distributed languages, parsing, optimization techniques, and compiling.

CSci 4901. Seminar II. (1 cr; prereq 2901, jr or sr; S-N only)
In-depth survey of literature in a specific computer-related field of the student’s choice. Students analyze various articles or similarly published works, synthesize their contents, and present their work formally in a conference setting. Multiple writing and speaking experiences reviewed by faculty and classmates.

CSci 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)
CSci 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Economics (Econ)

This discipline is in the Division of the Social Sciences.

Objectives—The economics curriculum is designed to ensure that students:

a) understand the nature and functioning of the market system
b) are able to define criteria for assessing efficiency in the provision of goods and services
c) investigate and assess the operation of economic institutions
d) are able to evaluate alternative policies intended to enhance economic outcomes
e) develop competence in quantitative methods and computing methods
f) are able to conceptualize and analyze problems using the tools of economic theory, and communicate the results
g) are competent in oral and written communication
h) are adequately prepared for graduate or professional school.

Major Requirements
Econ 1111—Principles of Microeconomics
Econ 1112—Principles of Macroeconomics
Econ 3201—Microeconomic Theory
Econ 3202—Macroeconomic Theory
Econ 3501—Introduction to Econometrics
Econ 4900—Variable Topics in Economic Research
Math 1101—Calculus I
Stat 1601—Introduction to Statistics
or Stat 2601—Statistical Methods
14 additional credits in Econ courses at 3xxx and above

No more than 4 credits from each of the following can be applied to the major.
Econ x993—Directed Study
Econ 490x—Variable Topics in Economic Research

Grades of D in Econ 1111-1112, Math 1101, and Stat 1601 may not be used to meet major requirements.
Up to 4 credits of other economics coursework with a grade of D may be used to meet major requirements if offset by an equivalent number of credits of A or B.
Required courses may not be taken S-N unless offered S-N only.

Students should complete the following during their first two years:
Econ 1111—Principles of Microeconomics
Econ 1112—Principles of Macroeconomics
Math 1101—Calculus I
Stat 1601—Introduction to Statistics
or Stat 2601—Statistical Methods

Students should complete the following before their senior year:
Econ 3201—Microeconomic Theory
Econ 3202—Macroeconomic Theory
Econ 3501—Introduction to Econometrics

Minor Requirements
Econ 1111—Principles of Microeconomics
Econ 1112—Principles of Macroeconomics
Econ 3201—Microeconomic Theory
Econ 3202—Macroeconomic Theory
Math 1101—Calculus I
Stat 1601—Introduction to Statistics
6 additional credits in Econ courses at 3xxx or above

No more than 4 credits from each of the following can be applied to the minor.
Econ x993—Directed Study
Econ 490x—Variable Topics in Economic Research

Grades of D in Econ 1111-1112, Math 1101, and Stat 1601 may not be used to meet minor requirements.
Required courses may not be taken S-N unless offered S-N only.

Teacher Preparation Requirements
Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.
Course Descriptions

Econ 1111f,s. Principles of Microeconomics. (SS; 4 cr; prereq high school algebra or #)

Econ 1112f,s. Principles of Macroeconomics. (SS; 4 cr; prereq high school algebra or #)
Introduction to basic economic problems, concepts, and theoretical models. U.S. economic institutions and the economic organization of society. The role of markets in the production and distribution of societal resources. Measurement of economic performance; national income, inflation and unemployment; competing macroeconomic theories and stabilization policies.

Econ 1951f,s. Seminar for Social Science Majors. (1 cr; prereq 1111, 1112; no cr for students who are concurrently enrolled in or have received cr for 3xxx Econ courses; S-N only)
Familiarization with various journals, periodicals, and sources of statistical information that deal with current developments in economics.

Econ 3000. Variable Topics in Economics. (See specific topics for general ed categories; 2-4 cr; repeatable when topic changes; prereq 1111, 1112 or #; offered when feasible)
Topic to be announced.

Econ 3003. Political Economy I. (SS; 2 cr; prereq 1101 or #)
The methodology, basic structure, and historical evolution of the modern economy, including the nature and mode of regulation of capitalist economics.

Econ 3004. Political Economy II. (SS; 2 cr; prereq 3003 or #)
The dynamics and transformation of contemporary capitalism, including the introductory study of the nature of accumulation process, economic crisis, and hegemonic tendency of the economy over all other aspects of social life in contemporary society.

Econ 3005. Experimental and Behavioral Economics I. (SS; 2 cr; prereq 1111, 1112, 3201 or #)
Introduction to economic experiments as controlled tests of microeconomic and game-theoretic behavioral predictions. In-class economic experiments, elements of non-cooperative game theory, results of market and social preference experiments, and empirical applications.

Econ 3006. Experimental and Behavioral Economics II. (SS; 2 cr; prereq 3005 or #)
Advanced concepts and applications in experimental and behavioral economics.

Econ 3007. Environmental and Natural Resource Economics I. (Envt; 2 cr; prereq 1111, 1112 or #)
An overview of approaches to “brown” pollution and “green” sustainability issues in environmental and natural resources economics. Topics include tradable pollution permits, environmental taxes, deregulation, and others.

Econ 3008. Environmental and Natural Resource Economics II. (Envt; 2 cr; prereq 3007 or #)
A hands-on, project-based course applying the concepts of Econ 3007 to a local environmental or natural resources challenge.

Econ 3113f. Money, Banking and Financial Markets. (SS; 4 cr; prereq 1111, 1112 or #)
Nature and function of money; role of commercial banks and other financial institutions; structure and function of Federal Reserve system; monetary policies for stabilization and growth; and a survey and synthesis of major theories on the value of money.

Econ 3121s. Public Economics I. (SS; 2 cr; prereq 1111, 1112 or #; offered when feasible)
Analysis of the economics of public expenditures.

Econ 3122s. Public Economics II. (SS; 2 cr; prereq 1111, 1112 or #; offered when feasible)
Analysis of the economics of taxation.

Econ 3131f. Comparative Economic Systems. (IP; 2 cr; prereq 1111, 1112 or #; not offered 2004-05)
Comparison of the theory and functioning of the major economic systems of the world; economic reform in capitalist and socialist economies.

Econ 3131Hf. Honors: Comparative Economic Systems. (IP; 2 cr; prereq 1111, 1112 or #; participation in Honors Program or #; not offered 2004-05)
Same as Econ 3131. Comparison of the theory and functioning of the major economic systems of the world; economic reform in capitalist and socialist economies.

Econ 3141f. Economic Development and Growth I. (IP; 2 cr; prereq 1111, 1112 or #; not offered 2003-04)
Nature and meaning of economic development. Theories of economic growth and the historical experience of new developed countries. General development problems facing developing countries.

Econ 3142f. Economic Development and Growth II. (IP; 2 cr; prereq 3141 or #; not offered 2003-04)
Current development problems and policies in developing countries; the possibilities and prospects for future development. Case studies examining the development progress of these countries.

Econ 3201f. Microeconomic Theory. (SS; 4 cr; prereq 1111, Math 1101 or #)
Analytical approach to decision making by individual economic units in the output and input markets, under perfect and imperfect market conditions. Externalities and role of government.

Econ 3202s. Macroeconomic Theory. (SS; 4 cr; prereq 1112, Math 1101 or #)
The theory of national income determination; inflation, unemployment, and economic growth in alternative models of the national economy.

Econ 3211f. History of Economic Thought I. (Hist; 2 cr; prereq 3201 or 3202)
The origin and development of economic thought from Mercantilism through the classical school. Among others, Adam Smith and Karl Marx are featured. Nature of economics as a social science through the study of its historical development.

Econ 3212f. History of Economic Thought II. (Hist; 2 cr; prereq 3211 or #)
The development of economic thought from Marx and the end of the classical school, through the development of more modern approaches. In addition to the demise of classical thought, a selection from the thinkers who contributed to the foundations of modern microeconomics and/or macroeconomics is covered. Nature of economics as a social science, through the study of its historical development.
Econ 3501s. Introduction to Econometrics. (M/SR; 4 cr; prereq 3201 or 3202, Stat 1601) Designing empirical models in economics. Simple and multiple regression analysis. Violations of classical assumptions in regression analysis. Logit and probit models; simultaneous equation models and lag models. Emphasis on application techniques to economic issues.


Econ 4102f. Labor Economics II. (SS; 2 cr; prereq 3201 or #; not offered 2003-04) Functioning and performance of the labor market. Heterodox explanations of labor market behavior. Labor demand applications.

Econ 4111. Mathematical Economics I. (M/SR; 2 cr; prereq 3201, 3202 or #; offered when feasible) Application of mathematical methods to economic analysis. Mathematical formulations and solution of optimizing models pertaining to households and firms and of adjustments to disturbances.

Econ 4112. Mathematical Economics II. (M/SR; 2 cr; prereq 3201, 3202 or #; offered when feasible) Topics include linear modeling, input-output analysis and linear programming, efficiency and exchange, comparative static analysis, and dynamic microeconomic and macroeconomic models.

Econ 4121s. International Trade Theory. (SS; 2 cr; prereq 3201 or #; not offered 2003-04) Overview of why trade occurs, pattern of trade and international factor movement. Effect of trade and trade policy on the economy. Current topics in trade theory.

Econ 4121Hs. Honors: International Trade Theory. (SS; 2 cr; prereq 3201 or #; participation in Honors Program or #; not offered 2003-04) Same as Econ 4121. Overview of why trade occurs, pattern of trade and international factor movement. Effect of trade and trade policy on the economy. Current topics in trade theory.

Econ 4131s. International Finance. (SS; 2 cr; prereq 3202 or #) Foreign exchange markets; theories of exchange rate determination; fixed vs. flexible rate systems; theories of balance of payments adjustments; international quantity of money theory; international reserves; international monetary system (past, present, and future); internal and external balance, international economic policy coordination, international debt problem; effect of international sector on domestic growth and stability.

Econ 4131Hs. Honors: International Finance. (SS; 2 cr; prereq 3202 or #; participation in Honors Program or #) Same as Econ 4131. Foreign exchange markets; theories of exchange rate determination; fixed vs. flexible rate systems; theories of balance of payments adjustments; international quantity of money theory; international reserves; international monetary system (past, present, and future); internal and external balance, international economic policy coordination, international debt problem; effect of international sector on domestic growth and stability.

Econ 4900fs. Variable Topics in Economic Research. (See specific topics for general ed categories; 2 cr; repeatable when topic changes; prereq 3201, 3202 or #) Guided research sessions. Familiarize students with literature in the field. Research topics include case studies of international or national topics within the discipline or any significant economic issue. Students are required to make a formal presentation on their research topic and attend presentations by their peers.

Econ 4901f. Labor Economics. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4902s. Development Economics. (IP; 2 cr; prereq 3201, 3202 or #)

Econ 4903s. International Economics. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4904f. Public Economics. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4905f. History of Economic Thought. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4906f. Gender Issues. (HDiv; 2 cr; prereq 3201, 3202 or #)

Econ 4907f. Industrial Organization. (2 cr; prereq 3201, 3202 or #)

Econ 4908f. Money and Banking. (2 cr; prereq 3201, 3202 or #)

Econ 4909f. Political Economy. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4910f. Financial Economics. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4911f. Personnel Economics. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 4912f. Market Research. (SS; 2 cr; prereq 3201, 3202 or #)

Econ 1993fs, 2993fs, 3993fs, 4993fs. Directed Study. (1-5 cr; repeatable; prereq @)

Econ 4994. Senior Honors Project. (1-5 cr; repeatable; prereq participation in the Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Education Programs

(See Education [Ed]; Education, Elementary [ElEd]; Education, Secondary [SeEd]; and Wellness and Sport Science [WSS].) UMM offers all students the opportunity to study education and its role in society. Courses with the “Ed” designator meet general education requirements, and enrollment in these courses is open and not limited to students pursuing teaching licensure. The Division of Education offers a major and teaching licensure in elementary education (K-6) with specialty licensures in preprimary (age 3-grade 3), and middle level (grade 5-8) communication arts and literature, mathematics, science, and social studies. Licensure of secondary school teachers is offered in chemistry (9-12), communication arts and literature (5-12), dance
and theatre arts (K-12), earth and space science (9-12), French (K-12), general science (5-8), German (K-12), instrumental music (K-12), life science (9-12), mathematics (5-12), physics (9-12), social studies (5-12), Spanish (K-12), visual arts (K-12), and vocal music (K-12).

Students may elect to complete coursework leading to endorsement for head varsity coaches in Minnesota.

Teacher education at UMM is part of the lifelong development of an effective teacher that includes an individual’s study of liberal arts disciplines and pedagogy, teaching, and other life experiences. UMM’s teacher education program is based on a belief that a successful teacher is one who reflects on teaching and makes instructional decisions that ensure student learning and reflection.

Teacher education at UMM uses personalized instruction and opportunities for domestic and international student teaching. Teachers are prepared to employ human, technological, and other resources in the effective instruction of diverse populations of learners. The program introduces prospective teachers to the teaching profession and prepares them to demonstrate:

1. knowledge of themselves and of learners; liberal arts disciplines; diverse social organizations and societies, including non-Western cultures; human growth and development; communication and language; problem solving; and effective teaching and learning;

2. skill in all aspects of teaching including setting goals and objectives; selecting appropriate content, activities, and materials; implementing effective lessons; assessing student learning; and evaluating oneself with the goal of continuous improvement;

3. dispositions associated with effective teaching, including enthusiasm and openness; efficacy, equity, and ethics and collaboration;

4. leadership when addressing educational issues.

Admission requirements must be met and admission granted before students can enroll in courses in either the elementary or secondary teacher education programs. These admission requirements are set by UMM and the state of Minnesota. They are described under Admission to the Major in the Education, Elementary (ElEd) section and Admission to the Program in the Education, Secondary (SeEd) section of this catalog.

Education (Ed)

This discipline is in the Division of Education. It is designed to meet general education requirements and is not limited to students pursuing teaching licensure.

Objectives—These courses are designed to offer students the opportunity to study education and its role in society.

Course Descriptions

Ed 1051s. Comparative Education. (IP; 4 cr)
Critical thinking abilities and insight into other cultures developed through study of education in selected countries and the United States.

Ed 2101f,s. Foundations and Issues in Education. (1 cr)
History, philosophy, and purposes of American education; teaching as a profession; issues and trends in education today; career opportunity and certification requirements in education. In addition to class sessions, students complete 30 hours of preprofessional field experience in the schools.

Ed 3101Hf. Honors: Ethics and Decision Making in Education I. (E/CR; 4 cr; prereq participation in Honors Program or #)
Study of educational decision making in different settings through analysis and development of case studies, seminar discussion, and independent research, including interviews with decision makers and participation in meetings of policy-making agencies.

Ed 3102Hs. Honors: Ethics and Decision Making in Education II. (1-4 cr; prereq 3101H, participation in Honors Program or #)
Continued in-depth study of ethics and decision making in education.

Ed 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

Ed 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Continuing Education Courses

Ed 1011. CE: Beginning Sign Language I. (FL; 3 cr; prereq #: additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)
Students develop a working vocabulary of conceptually based signs. Emphasis is on receptive abilities. Students develop an awareness of the history of sign language and explore various signing systems and their most common uses.

Ed 1012. CE: Beginning Sign Language II. (FL; 3 cr; prereq 1011; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)
Students develop a working vocabulary of conceptually based signs. Emphasis is on receptive as well as expressive abilities. Students develop an awareness of the history of sign language and deaf culture and explore various signing systems and their most common uses. A performance of the student’s signing skills is evaluated.
Division Structure and Course Descriptions

Ed 1111. CE: Introduction to Deaf Education. (Hum; 2 cr; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)

Designed to give students a basic understanding of how to educate the deaf. Emphasis is on learning about their language and culture and how to use that knowledge in working with the deaf in the classroom setting.

Ed 2011. CE: Intermediate Sign Language I. (FL; 3 cr; prereq 1012 or #; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)

Students develop a working vocabulary of conceptually based signs. Emphasis is on receptive as well as expressive abilities. Students continue to develop an awareness of the history of sign language and deaf culture and explore various signing systems and their most common uses. A performance of the student’s signing skills is evaluated.

Ed 2012. CE: Intermediate Sign Language II. (FL; 3 cr; prereq 2011; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement)

Students develop a working vocabulary of conceptually based signs. Students interact with members of the deaf community and participate in field trips. Students help educate the campus and surrounding communities about deaf people and their culture by presenting a performance at the end of the semester.

Education, Elementary (ElEd)

This discipline is in the Division of Education. A separate admissions process must be completed and admission granted before students can enroll in this program.

The elementary education major leads to Minnesota licensure as a teacher of grades K through 6. Students obtaining a K-6 license must also be licensed in a specialty area. The five areas offered at UMM are 1) preprimary, 2) middle level communication arts and literature, 3) middle level mathematics, 4) middle level science, and 5) middle level social studies.

Objectives—Coursework in elementary education is designed to meet standards of effective practice required for licensure and provide prospective teachers with opportunities to understand central concepts, tools of inquiry, and structures of disciplines taught in the elementary school; understand children and adolescent development theory, individual and group motivation and diversity among learners; create instructional opportunities adapted to learners of diverse cultural backgrounds and abilities; use instructional strategies that reflect personal knowledge of effective verbal, nonverbal, and communication techniques; encourage development of critical thinking, problem solving, and performance skills; understand and use formal and informal methods of student assessment; and collaborate with parents/guardians, families, school colleagues, and the community in an ethical manner.

Students planning to seek Minnesota teaching licensure at the elementary K-6 level and specialty areas must have completed licensure requirements in the elementary teacher education program, and state and federally mandated examinations for new teachers. A minimum GPA of 2.50 overall and in required licensure area(s) and education courses is required. All courses required for teaching licensure in elementary education (discipline, professional education, or other courses) must be completed with a grade of C- or higher.

Admission to the Major

During fall semester of the sophomore year, students are expected to attend an application meeting to begin the application process. Applications must be submitted to the Elementary Education Admissions Committee by the end of the first week of spring semester for entry to the program fall semester of the junior year. Enrollment in the major is limited. The decision to admit is made during spring semester, before fall registration. The elementary education course sequence begins in fall semester.

Students transferring from another school must be admitted to UMM before admission to the elementary major can be offered. It is recommended that these students seek academic planning advice from a member of the elementary education faculty before the semester in which admission to the program is sought.

Requirements for admission include the following:

1. Successful completion (grade of C- or higher) of Psy 1061—Introduction to the Development of the Child and Adolescent (Psy 1051 is a prereq), and Ed 2101—Foundations and Issues in Education.

   For students desiring more in-depth alternatives, Psy 3401—Developmental Psychology I: Child Psychology and Psy 3402—Developmental Psychology II: Adolescence may be substituted for Psy 1061—Introduction to the Development of the Child and Adolescent.

2. Completion of the Pre-Professional Skills Test (PPST).

3. A minimum GPA of 2.50 overall and in the elementary education major. No grade of D will be accepted in licensure or education courses.

4. Approximately 60 credits completed by the end of the sophomore year.
5. Approval of the faculty based on an interview, recommendations, assessment of prior experience (especially with children and other cultures), and progress toward a degree.
6. Student must be admitted to UMM prior to program admission.

**Student Teaching Requirements**

1. Successful completion of the following ElEd courses in the major:
   - ElEd 3101, 3102, 3103, 3111, 4101, 4102, 4103, 4104, 4107, 4111, and 4112

   **Students must also complete either:**
   - ElEd 3211—Practicum II: Field Experience in a Preprimary Setting
   - ElEd 3201—Preprimary Theory and Pedagogy
   - ElEd 3212—Practicum II: Field Experience in a Middle Level Setting
   - ElEd 3202—Middle Level Theory
   - Middle Level Methods course in area of specialty—EngE 4102, MthE 4102, SciE 4102 or SScE 4102

2. A minimum GPA of 2.50 overall and in the elementary education major; no grade of D will be accepted in licensure or education courses
3. Satisfactory completion of tutor aide and practicum experiences
4. Spch 1xxx (Spch 1000, Spch 1051, Spch 1061, Spch 1071) or exemption granted by petition to the Division of Education based on satisfactory completion of high school speech course or demonstrated ability
5. Approval of teacher education faculty

**Major Requirements**

**Students must complete:**
- Psy 1061—Introduction to the Development of the Child and Adolescent
- Ed 2101—Foundations and Issues in Education
- ElEd 3101—Teaching and Learning Strategies
- ElEd 3102—Reading in the Elementary School
- ElEd 3103—Mathematics in the Elementary School
- ElEd 3111—Practicum I: Field Experience in the Elementary Classroom
- ElEd 3201—Preprimary Theory and Pedagogy
  - or
- ElEd 3202—Middle Level Theory
- ElEd 3211—Practicum II: Field Experience in a Preprimary Setting
  - or
- ElEd 3212—Practicum II: Field Experience in a Middle Level Setting
- ElEd 4101—Strategies for Inclusive Schooling
- ElEd 4102—Social Studies in the Elementary School
- ElEd 4103—Science in the Elementary School
- ElEd 4104—Language Arts and Literature in the Elementary School
- ElEd 4107—Health and Physical Education in the Elementary School
- ElEd 4111—Practicum III: Beginning Student Teaching
- ElEd 4112—Practicum IV: Experience in the Elementary School Classroom
- ElEd 4201—Directed Student Teaching in Primary and Intermediate Grades or ElEd 4204—Directed Student Teaching in International School at the Primary and Intermediate Level
- ElEd 4901—The Teacher and Professional Development.

All courses required for a major in elementary education must be completed with a grade of C- or higher. Required courses may not be taken S-N unless offered S-N only.

**Elementary Licensure Requirements**

Students planning to teach in Minnesota elementary schools must meet the licensure requirements of the Minnesota Board of Teaching (BOT).

At the University of Minnesota, Morris, the following program is designed to meet the current BOT requirements. These course requirements are subject to change when the BOT implements new licensure rules.

1. All requirements for an elementary education major
2. Communication arts and literature: general education requirements for college writing and foreign language; speech any 1xxx (Spch 1000 or 1051 recommended); additional English any 1xxx or above (in addition to college writing) or literature course in foreign language (Engl 3021 recommended)
3. Statistics: Stat 1601, 2601, or 2611 and one mathematics course numbered 1xxx or above
4. Visual and performing arts: (two courses representing two different disciplines) studio art or art history (ArtS 1050 or 1070 recommended), music (Mus 1041 or 1042 recommended), theatre (Th 1101 or 2111 recommended), or dance
5. Social studies: (two courses representing two different disciplines) anthropology (Anth 1111 recommended), economics (Econ 1101 recommended), political science (Pol 1201 recommended), history (Hist 1301 recommended), sociology (Soc 1101 recommended), geography (Geog 1001 recommended)
6. Science: (two courses representing two different disciplines, 1 with lab) physics, geology, biology, chemistry
7. Psy 1081—Drugs and Human Behavior
8. Successful completion of a cross-cultural field experience
9. A minimum GPA of 2.50 overall and in the elementary education major; no grade of D will be accepted in licensure or education courses
10. A positive recommendation from the discipline and Division of Education
11. Passing scores on state and federally mandated examinations for new teachers
Division Structure and Course Descriptions

Note: Students in elementary education must complete licensure requirements and apply for licensure within seven years from time of admission to the licensure program. After seven years, all education courses previously taken become void and must be retaken for licensure.

Required courses may not be taken S-N unless offered S-N only.

Requirements for Specialty Areas
Students seeking K-6 licensure must also obtain a specialty licensure in one of the following five areas:

1. Preprimary education (age 3 to grade 3): Psy 1061; choose 3 additional courses from Psy 3111, Psy 3112, Psy 3302, Psy 3313, Psy 3401, Psy 3501, Soc 1101, Soc 3402 or Th 2111; ElEd 3201—Preprimary Theory and Pedagogy; and ElEd 3211—Practicum II: Field Experience in a Preprimary Setting

2. Middle level communication arts and literature (grades 5-8): any Spch course 1xxx or above; two Engl courses 1xxx or above (not College Writing); one Engl course 2xxx or above (Engl 3021 recommended); ElEd 3202—Middle Level Theory; ElEd 3212—Practicum II: Field Experience in a Middle Level Setting; and EngE 4102—Methods of Teaching Communication Arts and Literature in the Middle School

3. Middle level mathematics (grades 5-8): Stat 1601, 2601, or 2611; three additional math courses at the 1xxx or above; ElEd 3202—Middle Level Theory; ElEd 3212—Practicum II: Field Experience in a Middle Level Setting; and MthE 4102—Methods of Teaching Mathematics in the Middle School

4. Middle level social studies (grades 5-8): Hist any 1xxx or above; Anth any 1xxx or above; two courses representing two different disciplines (Geog, Econ, Pol, or Soc); ElEd 3202—Middle Level Theory; ElEd 3212—Practicum II: Field Experience in a Middle Level Setting; and SScE 4102—Methods of Teaching Social Studies in the Middle School

5. Middle level science (grades 5-8): Biol any 1xxx or above; Geol any 1xxx or above; Chem any 1xxx or above; Phys any 1xxx or above; ElEd 3202—Middle Level Theory; ElEd 3212—Practicum II: Field Experience in a Middle Level Setting; and SScE 4102—Methods of Teaching Science in the Middle School

It is recommended that students complete additional coursework, a minor, or a second major supportive of their chosen specialty licensure area. Students seeking a non-education major or minor should consult the catalog for requirements in the area of interest.

Course Descriptions

ElEd 3101f. Teaching and Learning Strategies. (4 cr; prereq admission to the elementary teacher education program)
Elementary school teaching and learning. Planning for instruction, learning theory, multicultural education, classroom management, use of technology in the classroom.

ElEd 3101H. Honors: Teaching and Learning Strategies. (4 cr; prereq admission to the elementary teacher education program, participation in Honors Program or #)
Elementary school teaching and learning. Planning for instruction, learning theory, multicultural education, classroom management, use of technology in the classroom.

ElEd 3102f. Reading in the Elementary School. (4 cr; prereq admission to elementary teacher education program)
Beginning and advanced reading instruction in the elementary grades. Includes study of theory, issues, word recognition and comprehension strategies, reading materials, assessment, and group management.

ElEd 3103f. Mathematics in the Elementary School. (3 cr; prereq admission to the elementary teacher education program)
Standards, curriculum, assessment, and methodology for teaching mathematics in the elementary school. Includes the theoretical basis of methodology in mathematics and its application, measurement and evaluation, selection and use of instructional media and computer software, and meeting the needs of culturally diverse and special needs students.

ElEd 3111f. Practicum I: Field Experience in the Elementary Classroom. (1 cr; prereq admission to the elementary teacher education program; S-N only)
Field experience in the elementary classroom.

ElEd 3201s. Preprimary Theory and Pedagogy. (3 cr; prereq 3101, 3102, 3103, 3111)
Developmental characteristics, organizational and instructional needs of preprimary and early elementary classrooms. Characteristics of effective preprimary and early elementary teachers. Required for student pursuing an elementary preprimary specialty.

ElEd 3202s. Middle Level Theory. (2 cr; prereq 3101, 3102, 3103, 3111)
Developmental characteristics, organizational and instructional needs of pre-adolescent and adolescent level classrooms. Characteristics of effective middle level teachers. Required for student pursuing an elementary middle level specialty.

ElEd 3211s. Practicum II: Field Experience in a Preprimary Setting. (1 cr; prereq 3101, 3102, 3103, 3111; S-N only)
Field experience in preprimary or kindergarten setting.

ElEd 3212s. Practicum II: Field Experience in a Middle Level Setting. (1 cr; prereq 3101, 3102, 3103, 3111; S-N only)
Field experience in the middle level classroom.

ElEd 4101f. Strategies for Inclusive Schooling. (2 cr; prereq 3101, 3102, 3103, 3111)
Strategies and techniques for developing inclusive learning environments. Emphasizes adaptations to accommodate students with mild, moderate, and severe disabilities. Overviews historically-situated legal, philosophical, and programmatic changes leading toward inclusive models of education.
ElEd 4102f. Social Studies in the Elementary School. (2 cr; prereq 3101, 3102, 3103, 3111)
Outcomes, content, integration strategies, and assessment of social studies instruction in the elementary curriculum.

ElEd 4103f. Science in the Elementary School. (2 cr; prereq 3101, 3102, 3103, 3111)
Standards, curriculum, and assessment of elementary school science. Includes theoretical basis of methodology and its application, assessment, selection and use of instructional media and computer software, and meeting the needs of cultural diverse and special needs students.

ElEd 4104f. Language Arts and Literature in the Elementary School. (3 cr; prereq 3101, 3102, 3103, 3111)
Outcomes, content, strategies, and assessment of language arts and children’s literature in the elementary classroom.

ElEd 4107f. Health and Physical Education in the Elementary School. (1 cr; prereq 3101, 3102, 3103, 3111)
Scope, sequence, and related activities in elementary health and physical education.

ElEd 4111f. Practicum III: Beginning Student Teaching. (2 cr; prereq 3101, 3102, 3103, 3111; S-N only)
Participation in in-service, teaching, and teaching-related activities in preparation for student teaching.

ElEd 4112f. Practicum IV: Experience in the Elementary School. (1 cr; prereq 3101, 3102, 3103, 3111; S-N only)
Field experience in the elementary classroom.

ElEd 4201s. Directed Student Teaching in Primary and Intermediate Grades. (HDIV; 10 cr; prereq 4101, 4102, 4103, 4104, 4111, 4112; S-N only)
Students teach for a period of 11 weeks demonstrating application of approaches to teaching and learning in primary and intermediate grades under the guidance of a cooperating teacher and University supervisor.

ElEd 4202f.s. Directed Student Teaching in Primary and Intermediate Grades. (1-16 cr; prereq #; S-N only)
For students who need alternative or additional student teaching experience. Students demonstrate application of approaches to teaching and learning in primary and intermediate grades under guidance of a cooperating teacher and University supervisor.

ElEd 4204s. Directed Student Teaching in International School at the Primary and Intermediate Level. (IP; 10 cr; prereq 4101, 4102, 4103, 4104, 4111, 4112; S-N only)
Students teach for a period of 11 weeks demonstrating application of approaches to teaching and learning in primary and intermediate grades under the guidance of a cooperating teacher and University supervisor.

ElEd 4901s. The Teacher and Professional Development. (2 cr; prereq 4201, 4204 or #)
Capstone experience. Professional development issues and philosophy of education, including portfolio assessment.

ElEd 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

ElEd 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

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**Education, Secondary (SeEd)**

This discipline is in the Division of Education. A separate admissions process must be completed and admission granted before students can enroll in this program.

The secondary education program leads to Minnesota licensure as a teacher in specified liberal arts disciplines.

**Objectives**—Coursework in secondary education is designed to meet standards of effective practice required for licensure and provide prospective teachers with opportunities to understand central concepts, tools of inquiry, and structures of disciplines taught in the middle and secondary school; understand adolescent development theory, individual and group motivation and diversity among learners; create instructional opportunities adapted to learners from diverse cultural backgrounds and with exceptionalities; use instructional strategies that reflect personal knowledge of effective verbal, nonverbal, and communication techniques; encourage development of critical thinking, problem solving, and performance skills; understand and use formal and informal methods of student assessment; plan and manage instruction; engage in reflection and self-assessment; and collaborate with parents/guardians, families, school colleagues, and the community in an ethical manner.

Students seeking licensure must have a major, a bachelor’s degree, and have completed licensure requirements in the area(s) in which licensure is sought. UMM is approved to recommend teaching licensure in the following fields: chemistry (9-12), communication arts and literature (5-12), dance and theatre arts (K-12), earth and space science (9-12), French (K-12), general science (5-8), German (K-12), instrumental music (K-12), life science (9-12), mathematics (5-12), physics (9-12), social studies (5-12), Spanish (K-12), visual arts (K-12), and vocal music (K-12).

Students planning to seek Minnesota teaching licensure at the secondary school level must complete licensure requirements in the discipline(s) of the subject(s) they intend to teach, the secondary teacher education program, and state and federally mandated examinations for new teachers. A minimum GPA of 2.50 overall and in required licensure area(s) and education courses is required. All courses required for teaching licensure in secondary education (discipline, professional education, or other courses) must be completed with a grade of C- or higher.
Licensure Area Requirements

An equivalent honors course can be used to fulfill any of the following requirements.

Chemistry 9-12
Chem 1101—General Chemistry I
Chem 1102—General Chemistry II
Chem 2301—Organic Chemistry I
Chem 2302—Organic Chemistry II
Chem 2311—Organic Chemistry Lab I
One of two:
Chem 2312—Organic Chemistry Lab II
Chem 2321—Introduction to Research
Chem 3101—Analytical Chemistry
Chem 3501—Physical Chemistry I
Chem 3xxx or above, one course
One of three:
Chem 4901 and 4902—Chemistry Seminar I and II (on research)
Chem 2993 or 3993 or 4993—Directed Study in Research
Other research experience (i.e., UROP, internship) with discipline approval
Math 1101—Calculus I
Math 1102—Calculus II
Phys 1101—General Physics I
Phys 1102—General Physics II

Communication Arts and Literature 5-12 (fulfills the requirements for an English major)
Engl 1131—Introduction to Literature
One of two:
Engl 2201—British Literature Survey I
Engl 2202—British Literature Survey II
One of two:
Engl 2211—American Literature Survey I
Engl 2212—American Literature Survey II
Engl 3001—Advanced Expository Writing
Engl 3021—Grammar and Language
Engl 3159—Shakespeare
Engl 3301—U.S. Multicultural and Multiracial Literatures
Engl elective at 1xxx or above
One of two:
Spch 1000—Variable Topics in Introduction to Public Speaking
Spch 1051—Introduction to Public Speaking
Spch 1061—Interpersonal Communication
Spch 1071—Introduction to Groups: Principles and Practices
Spch 2101—Introduction to Speech Communication
Spch 3301—Media Theory, Criticism, and Problems
Spch 4151—Argumentation: Theory and Practice
Th 2211—Oral Interpretation

Dance and Theatre Arts K-12 With a Theatre Specialization
Th 1101—The Theatre Experience: An Introduction
Th 1111—Fundamentals of Acting
Th 1301—Fundamentals of Design
Th 2101—Fundamentals of Directing
Th 2211—Oral Interpretation
Th 2301—Stagecraft
Th 3101—World Theatre: History and Literature I
Th 3102—World Theatre: History and Literature II
One of two:
Th 3201—Acting and Directing I
Th 3202—Acting and Directing II
Th 4301—Scenic Design
Spch 3311—Social Uses of Media
WSS 1332—Intermediate Jazz Dance
WSS 1333—Intermediate Modern Dance
WSS 2301—Dance Production
Three major production responsibilities in faculty-directed productions, two of which must be in the junior and senior years

Earth and Space Science 9-12
Chem 1101—General Chemistry I
Chem 1102—General Chemistry II
Geol 1101—Physical Geology
Geol 1121—Historical Geology: Earth History and Changing Scientific Perspectives
Geol 2101—Mineralogy and Crystallography
Geol 2111—Petrology and Petrography
Geol 2121—Sedimentology and Stratigraphy
One of three:
Geol 4901 and 4902—Geology Senior Seminar and Presentations (on research)
Geol 2993 or 3993 or 4993—Directed Study in Research
Other research experience (i.e. UROP, internship) with discipline approval
Math 1101—Calculus I
Also recommended:
Geol 3101—Structural Geology
Geol 3501—Hydrology

French K-12
Fren 1001—Beginning French I
Fren 1002—Beginning French II
Fren 2001—Intermediate French I
Fren 2002—Intermediate French II
Fren 3001—Conversation and Composition
Fren 3011—Reading and Analysis of Texts
Fren 3015—French Culture I or Fren 3016—French Culture II
Minimum 16 credits of Fren 3xxx or above courses

General Science 5-8
Biol 2101—Evolution of Biodiversity (Biol 1101 prereq is waived)
Biol 2111—Cell Biology
Chem 1101—General Chemistry I
Chem 1102—General Chemistry II
Geol 1101—Physical Geology

One of two:
Phys 1091—Principles of Physics I
Phys 1101—General Physics I

One of two:
Phys 1092—Principles of Physics II
Phys 1102—General Physics II

**German K-12**
Ger 1001—Beginning German I
Ger 1002—Beginning German II
Ger 2001—Intermediate German I
Ger 2002—Intermediate German II
Ger 3001—Beginning German Conversation and Composition I
Ger 3011—Readings in German
Ger 3021—Advanced German Conversation and Composition
Ger 3101—Survey of German Literature and Culture I
Ger 3102—Survey of German Literature and Culture II

One of two:
Ger 3201—German Classicism
Ger 3211—German Romanticism

Two Ger 3xxx elective courses (4 cr each)

**Instrumental Music K-12**
Mus 0100—Concert Attendance (7 enrollments min)
Mus 1101—Core Studies I: Music Theory I
Mus 1102—Core Studies I: Music Theory II
Mus 1300—Concert Band and/or 1340—Orchestra (7 enrollments min)
Mus 2101—Core Studies II: Music Theory III
Mus 2102—Core Studies II: Music Theory IV
Mus 3101—Core Studies III: Medieval, Renaissance, and Baroque Music
Mus 3102—Core Studies III: Classical, Romantic, and 20th Century Music
Mus 1200-1219—Individual Performance Studies (4-5 total enrollments)*
Mus 3200-3219—Advanced Individual Performance Studies in wind, string, percussion, or keyboard (2-3 semesters)*
Mus 3301—Instrumental Techniques—Woodwind
Mus 3302—Instrumental Techniques—Brass and Percussion
Mus 3303—Instrumental Techniques—Strings
Mus 3304—Vocal Techniques
Mus 3311—Conducting Techniques
Mus 3321—Instrumental Conducting and Materials
Mus 4901—Senior Project

Piano Proficiency Test

Secondary performance competence on another family (wind, string, or percussion)

* If jury exam is passed end of 4th semester: 4 cr Mus 1200-1219 and 3 cr of Mus 3200-3219; if jury exam is passed end of 5th semester: 5 cr Mus 1200-1219 and 2 cr of Mus 3200-3219

**Life Science 9-12 (fulfills the requirements for a biology major)**
Biol 1101—Freshman Seminar in Biological Principles
Biol 2101—Evolution of Biodiversity
Biol 2111—Cell Biology
Biol 3101—Genetics
Biol 3121—Molecular Biology
Biol 3131—Ecology
Biol 4000-4500 (8 cr min)
Biol 4901—Senior Seminar

Chem 1101—General Chemistry I
Chem 1102—General Chemistry II
Chem 2301—Organic Chemistry I
Chem 2302—Organic Chemistry II
Chem 2311—Organic Chemistry Lab I

One of two:
Math 1021—Survey of Calculus
Math 1101—Calculus I

One of two:
Stat 1601—Introduction to Statistics
Stat 2601—Statistical Methods

One of four:
Biol 4000-4500 (beyond 8 cr min above)
Geol 3111—Introduction to Invertebrate Paleontology
Psy 3201—Comparative Psychology
Psy 3211—Biological Psychology

**Mathematics 5-12 (fulfills the requirements for a mathematics major)**
Math 1101—Calculus I
Math 1102—Calculus II
Math 2101—Calculus III
Math 2111—Linear Algebra
Math 2211—History of Math
Math 2202—Mathematical Perspectives
Math 3211—Geometry
Math 3221—Analysis
Math 3231—Abstract Algebra
Math 3411—Discrete and Combinatorial Mathematics
Math 4901—Senior Seminar

Stat 2611—Mathematical Statistics

Students are required to take a minimum of 5 additional credits in Math courses at 2xxx or above and one course with significant mathematical applications outside the mathematics discipline. The latter course must be approved by the mathematics discipline.

**Physics 9-12**
Math 1101—Calculus I
Math 1102—Calculus II
Math 2101—Calculus III
Math 2401—Differential Equations
Phys 1101—General Physics I
Phys 1102—General Physics II
Division Structure and Course Descriptions

**Phys 2101**—Modern Physics  
**Phys 2201**—Circuits and Electronic Devices  
**Phys 3101**—Classical Mechanics  
**Phys 3301**—Optics

**One of two:**  
**Chem 3501**—Physical Chemistry I  
**Phys 3501**—Statistical Physics

**One of three:**  
**Phys 4901**—Senior Thesis (on research)  
**Phys 2993 or 3993 or 4993**—Directed Studies in Research  
Other research experience (e.g., UROP, internship) with discipline approval

**Social Studies 5-12 (fulfills requirements for a social science major)**  
**Anth 1111**—Introductory Cultural Anthropology  
**Econ 1112**—Principles of Macroeconomics  
**Econ 1951**—Seminar for Social Studies Majors  
**Geog 1001**—Problems in Geography  
**Hist 1301**—Introduction to United States History  
**Stat 1601**—Introduction to Statistics or equivalent  
**Pol 1201**—American Government and Politics  
**Psy 1051**—Introduction to Psychology  
**Soc 1101**—Introductory Sociology

**Area of focus requirement**—An area of focus often will be demonstrated by completing the minor in that discipline. Area of focus plans should be on file with the Social Sciences Division Office by the end of a student’s junior year. Individual plans can be devised, but the total number of introductory and upper level credits will be similar to that found among minors in the social sciences.

**Spanish K-12 (fulfills requirements for a Spanish major)**  
**Span 1001**—Beginning Spanish I  
**Span 1002**—Beginning Spanish II  
**Span 2001**—Intermediate Spanish I  
**Span 2002**—Intermediate Spanish II  
**Span 3001**—Advanced Spanish I  
**Span 3002**—Advanced Spanish II  
**Span 3101**—Introduction to Spanish Literature  
**Span 3201**—Masterpieces of Spanish Peninsular Literature I  
**Span 3202**—Masterpieces of Spanish Peninsular Literature II  
**Span 3301**—Masterpieces of Latin American Literature I  
**Span 3302**—Masterpieces of Latin American Literature II

**One of two:**  
**Span 3400**—Variable Topics in Latin American Literature  
**Span 3500**—Variable Topics in Spanish Peninsular Literature

**Visual Arts K-12**  
**Arth 1101**—Principles of Art  
**ArtS 1050**—Beginning Ceramics  
**ArtS 1101**—Basic Studio Drawing  
**ArtS 1102**—Basic Studio Drawing  
**ArtS 1103**—Basic Studio 2-D Design  
**ArtS 1104**—Basic Studio 3-D Design  
**ArtS 1105**—Basic Studio Discussion  
**ArtS 1106**—Basic Studio Discussion  
**ArtS 2101**—Second Year Drawing  
**ArtS 2102**—Second Year Drawing  
**ArtS 3881**—Junior Review  
**ArtS 4881**—Senior Review  
**ArtS 4901**—Senior Exhibit

Minimum 12 cr in one of the following media plus 6 cr in another and 3 cr in the third media:  

**Printmaking**  
**ArtS 2201**—Beginning Printmaking  
**ArtS 2202**—Beginning Printmaking  
**ArtS 3200**—Advanced Printmaking

**Painting**  
**ArtS 2301**—Beginning Painting  
**ArtS 2302**—Beginning Painting  
**ArtS 3300**—Advanced Painting

**Sculpture**  
**ArtS 2401**—Beginning Sculpture  
**ArtS 2402**—Beginning Sculpture  
**ArtS 3400**—Advanced Sculpture

Minimum 6 credits ArtS 2xxx or above electives  
Minimum of 8 credits of Arth courses

**Vocal Music K-12**  
**Mus 0100**—Concert Attendance (7 enrollments min)  
**Mus 1101**—Core Studies I: Music Theory I  
**Mus 1102**—Core Studies I: Music Theory II  
**Mus 1310**—University Choir and/or 1320—Concert Choir (7 enrollments min)  
**Mus 2101**—Core Studies II: Music Theory III  
**Mus 2102**—Core Studies II: Music Theory IV  
**Mus 3101**—Core Studies III: Medieval, Renaissance, and Baroque Music  
**Mus 3102**—Core Studies III: Classical, Romantic, and 20th Century Music  
**Mus 1200—1219**—Individual Performance Studies (4-5 total enrollments)*  
**Mus 3200—3219**—Advanced Individual Performance Studies in voice or keyboard (2-3 semesters)*  
**Mus 3301**—Instrumental Techniques—Woodwind  
**Mus 3302**—Instrumental Techniques—Brass and Percussion  
**Mus 3303**—Instrumental Techniques—Strings  
**Mus 3304**—Vocal Techniques  
**Mus 3311**—Conducting Techniques  
**Mus 3331**—Choral Conducting and Materials  
**Mus 4901**—Senior Project  
**Piano Proficiency Test**
Secondary performance competence on an instrument (wind, string, percussion or keyboard)

* If jury exam is passed end of 4th semester: 4 cr Mus 1200-1219 and 3 cr of Mus 3200-3219; if jury exam is passed end of 5th semester: 5 cr Mus 1200-1219 and 2 cr of Mus 3200-3219

**Admission to the Program**

During fall semester of the junior or senior year, students are expected to attend an application meeting to begin the application process. Enrollment in the program is limited. The decision to admit is made during spring semester, before fall registration. The secondary education course sequence begins in fall semester.

Students transferring from another school must be admitted to UMM before admission to the secondary program can be offered. It is recommended that these students seek academic planning advice from a member of the secondary education faculty before the semester in which admission to the program is sought.

Requirements for admission include the following:

1. Successful completion (grade of C- or higher) of Psy 1061—Introduction to the Development of the Child and Adolescent (Psy 1051 is a prereq) and Ed 2101—Foundations and Issues in Education

   For students desiring more in-depth alternatives, Psy 3401—Developmental Psychology I: Child Psychology and Psy 3402—Developmental Psychology II: Adolescence may be substituted for Psy 1061—Introduction to the Development of the Child and Adolescent.

2. Completion of the Preprofessional Skills Test (PPST).

3. A minimum GPA of 2.50 overall and in required licensure area(s) and education courses. No grade of D will be accepted in licensure or education courses.

4. Approximately 90 credits completed by the end of the junior year including demonstration of satisfactory progress in each licensure area.

5. Approval of the faculty based on an interview, recommendations, assessment of prior experience (especially with young people and other cultures), and progress toward a degree.

6. Student must be admitted to UMM prior to program admission.

**Student Teaching Requirements**


2. Successful completion of licensure area methods course(s).

3. Satisfactory completion of tutor aide and practicum experiences.

4. Spch 1xxx (Spch 1000, Spch 1051, Spch 1061, Spch 1071) or exemption granted by petition to the Division of Education based on satisfactory completion of high school speech course or demonstrated ability.

5. A minimum GPA of 2.50 overall and in required licensure area(s) and education courses. No grade of D will be accepted in licensure or education courses.

6. Approval of teacher education faculty based on recommendations from faculty in the student’s discipline.

**Middle and Secondary School Licensure Requirements**

Students planning to teach in Minnesota middle and secondary schools must meet the licensure requirements of the Minnesota Board of Teaching (BOT).

At the University of Minnesota, Morris, the following program is designed to meet the current BOT requirements. These course requirements are subject to change when the BOT implements new licensure rules.

1. Professional education courses
   - Ed 2101—Foundations and Issues in Education
   - SeEd 4101—Block I: Teaching the Middle and Secondary Student
   - SeEd 4102—Block II: Teaching and Learning Strategies
   - SeEd 4103—Practicum Experience in the Middle and Secondary School
   - SeEd 4201—Directed Student Teaching in the Middle and Secondary School
   - SeEd 4204—Directed Student Teaching in International School at the Middle and Secondary Level
   - SeEd 4901—The Teacher and Professional Development.

2. Successful completion of licensure area methods course(s).


4. Spch 1xxx (Spch 1000, Spch 1051, Spch 1061, Spch 1071) or exemption granted by petition to the Division of Education based on satisfactory completion of high school speech course or demonstrated ability.

5. A minimum GPA of 2.50 overall and in required licensure area(s) and education courses. No grade of D will be accepted in licensure or education courses.

6. Approval of teacher education faculty based on recommendations from faculty in the student’s discipline.

7. Passing scores on state and federally mandated examinations for new teachers.

*Note:* Students in secondary education must complete licensure requirements and apply for licensure within seven years from time of admission to the licensure.
Division Structure and Course Descriptions

program. After seven years, all education courses previously taken become void and must be retaken for licensure.

Required courses may not be taken S-N unless offered S-N only.

Course Descriptions

**SeEd 4101f. Block I: Teaching the Middle and Secondary Student.** (4 cr; prereq admission to the secondary teacher education program; coreq 4102, 4103, methods) Study of the middle and secondary education student, including exceptionalities, individual differences, learning styles, self-esteem, motivation, communication skills, assessment, and multicultural education.

**SeEd 4102f. Block II: Teaching and Learning Strategies.** (4 cr; coreq 4101, 4103, methods) Concepts include teaching and learning strategies for middle and secondary classrooms, planning for lesson and unit instruction and assessment, learning theory, use of technology in the classroom, discipline, and classroom management.

**SeEd 4103f. Practicum Experience in the Middle and Secondary School.** (2 cr; coreq 4101, 4102, methods; S-N only) Field experience in the middle and secondary school.

**SeEd 4201s. Directed Student Teaching in the Middle and Secondary School.** (HDiv; 10 cr; prereq 4101, 4102, 4103, methods, Spch 1000 or Spch 1051 or exemption; S-N only) Students teach for a period of 11 weeks demonstrating application of approaches to teaching and learning in the middle and secondary grades under the guidance of a cooperating teacher and University supervisor.

**SeEd 4202f,s. Directed Student Teaching in the Middle and Secondary School.** (1-16 cr; prereq #: S-N only) For students who need alternative or additional student teaching experience. Students demonstrate application of approaches to teaching and learning in middle and secondary grades under the guidance of a cooperating teacher and University supervisor.

**SeEd 4204s. Directed Student Teaching in International School at the Middle and Secondary Level.** (IP; 10 cr; prereq 4101, 4102, 4103, methods, Spch 1000 or Spch 1051 or exemptions; S-N only) Students teach for a period of 11 weeks demonstrating application of approaches to teaching and learning in the middle and secondary grades under the guidance of a cooperating teacher and University supervisor.

**SeEd 4901s. The Teacher and Professional Development.** (2 cr; prereq 4201 or 4204 or #) Capstone experience. Professional development issues and philosophy of education, including portfolio assessment.

**SeEd 3993f,s, 4993f,s. Directed Study.** (1-5 cr; repeatable; prereq @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

**Middle and Secondary Education Methods Courses**

These courses focus on the objectives, curricula, special methods, materials, and evaluation appropriate for teaching the various subject matter areas in the middle and secondary school. Students are required to complete methods course(s) in their licensure area(s). Methods courses are taken concurrently with the secondary education block courses—SeEd 4101, 4102, 4103—and must be successfully completed before student teaching in a specific field.

**ArtE 4103f. Methods of Teaching Art K-12.** (4 cr; A-F only)

**EngE 4102f. Methods of Teaching Communication Arts and Literature in the Middle School.** (1 cr; A-F only)

**EngE 4103f. Methods of Teaching Communication Arts and Literature in the Secondary School.** (3 cr; coreq EngE 4102; A-F only)

**LanE 4103f. Methods of Teaching Foreign Language K-12.** (4 cr; A-F only)

**MthE 4102f. Methods of Teaching Mathematics in the Middle School.** (1 cr; A-F only)

**MthE 4103f. Methods of Teaching Mathematics in the Secondary School.** (3 cr; coreq MthE 4102; A-F only)

**MusE 4103f. Methods of Teaching Music K-12.** (3 cr; A-F only)

**MusE 4104f. Multicultural Music for the K-12 Music Educator.** (1 cr; prereq #: A-F only)

**SciE 4102f. Methods of Teaching Science in the Middle School.** (1 cr; A-F only)

**SciE 4103f. Methods of Teaching Science in the Secondary School.** (3 cr; coreq SciE 4102; A-F only)

**SScE 4102f. Methods of Teaching Social Science in the Middle School.** (1 cr; A-F only)

**SScE 4103f. Methods of Teaching Social Science in the Secondary School.** (3 cr; coreq SScE 4102; A-F only)

**ThE 4103f. Methods of Teaching Dance and Theatre Arts K-12.** (4 cr; A-F only)

**English (Engl)**

This discipline is in the Division of the Humanities. English is the study of literature and language—its historical, imaginative, and intellectual development.

**Objectives**—The English program engages students in the study of primarily British and American literature of different periods, with an emphasis on various approaches to literary study. Students learn to discuss, orally and in writing, what they have read: how the author has structured what they have read; how the author has structured the text and how literary language achieves its effects and directs the reader’s response to the text. The major offers both broad exposure to and in-depth study of literature and language, as well as courses in creative and expository writing. English courses combine analysis and writing to teach students to be effective critical and imaginative readers and writers.
Major Requirements

Major requirements include a minimum of 10 courses (40 credits).

Prerequisite courses
Engl 1011—College Writing or equivalent (not included in the 40 credits for the major)
Engl 1131—Introduction to Literature

Survey courses
At least three courses from:
Engl 2201—British Literature Survey I
Engl 2202—British Literature Survey II
Engl 2211—American Literature Survey I
Engl 2212—American Literature Survey II

Additional requirements and electives
One course at 2xxx or above other than 2201, 2202, 2211, or 2212.
Five courses at 3xxx or above, including at least one Variable Topics Seminar at 4xxx.
One of the 10 courses in the major must have an HDiv designator at 2xxx or above.
Up to 4 credits of coursework with a grade of D may be used to meet the major requirements. Required courses may not be taken S-N unless offered S-N only.

Minor Requirements

Minor requirements include a minimum of six courses (24 credits).

Prerequisite courses
Engl 1011—College Writing or equivalent (not included in the 24 credits for the minor)
Engl 1131—Introduction to Literature

Survey courses
A. At least one course from:
Engl 2201—British Literature Survey I
Engl 2202—British Literature Survey II
B. At least one course from:
Engl 2211—American Literature Survey I
Engl 2212—American Literature Survey II

Additional requirements and electives
One course at 2xxx or above other than 2201, 2202, 2211, or 2212.
Two courses at 3xxx or 4xxx
One of the 6 courses in the minor must have an HDiv designator at 2xxx or above.
Up to 4 credits of coursework with a grade of D may be used to meet the minor requirements. Required courses may not be taken S-N unless offered S-N only.

Teacher Preparation Requirements

Students seeking teaching licensure in communication arts and literature 5-12 should refer to the Education, Secondary (SeEd) section of this catalog. Students completing the course requirements for licensure in Communication Arts/Literature earn an English major.

Course Descriptions

Engl 1001f. Fundamentals of Writing. (4 cr; may not be used to fulfill College Writing requirement)
Intensive practice in the fundamentals of writing. Students learn and apply strategies for generating, organizing, revising, and editing their writing.

Engl 1011f,s. College Writing. (CW; 4 cr)
Practice in expressive and analytical writing, with special emphasis on the multsource essay.

Engl 1131f,s. Introduction to Literature. (Hum; 4 cr)
Introduction to the study of fiction, poetry, and drama. Emphasis on gaining basic skills of analysis. A prerequisite to advanced courses in English.

Engl 2011. Introduction to Poetry and Poetic Language. (Hum; 4 cr; prereq 1011 or equiv)
An introduction to the techniques of close reading and the analysis of poetry. Emphasis on appreciating and understanding poetic form.

Engl 2012f. Introduction to Fiction. (Hum; 4 cr; prereq 1011 or equiv; not offered 2003-04)
An introduction to critical reading and analysis of fiction (novels and/or short stories).

Engl 2013f. Introduction to Drama. (Hum; 4 cr; prereq 1011 or equiv; not offered 2004-05)
An introduction to critical reading and analysis of dramatic literature.

Engl 2031. Gender in Literature and Culture. (HDiv; 4 cr; prereq 1011 or equiv; offered when feasible)
Introduction to literary and cultural representations of gender. Emphasis on the intersections between power and the social relations of gender, race, class, and sexuality.

Engl 2041s. Introduction to African American Literature. (HDiv; 4 cr; prereq 1011 or equiv; not offered 2003-04)
Introduction to issues and themes in African American literature and culture, with emphasis on historical and cultural context.

Engl 2100. Variable Topics in Writing. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1011 or equiv; offered when feasible)
Study of a topic or method(s) of writing not normally covered by other writing courses.

Engl 2121f. Introduction to Creative Writing. (ArtP; 4 cr; prereq 1011 or equiv)
Introduction to the basic elements of creative writing, including exploration of poetry, story, and journal writing. Practice with techniques such as dialogue, description, voice, and style.

Engl 2151. Writing and Technology. (Hum; 4 cr; prereq 1011 or equiv)
Exploration of ongoing changes in writing techniques and rhetorical styles due to advancements in technology and globalization. Exploration and evaluation of various methods of writing in electronic formats. Writing assignments include both traditional and nontraditional methods.

Engl 2161. News Writing and Reporting. (Hum; 4 cr; prereq 1011 or equiv)
Introduction to news writing and reporting skills necessary for print and broadcast journalism.

Engl 2201f. British Literature Survey I. (Hum; 4 cr; prereq 1011 or equiv, 1131)
Readings in English poetry, prose, and/or drama from the beginnings to the 18th century. Specific authors vary.
## Divisions & Courses

### 2004-05

#### 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 2202s.</td>
<td>British Literature Survey II.</td>
<td>(Hum; 4 cr; prereq 1011 or equiv, 1131) Readings in English poetry, prose, and/or drama from the 18th century to the present. Specific authors vary.</td>
</tr>
<tr>
<td>Engl 2211.</td>
<td>American Literature Survey I.</td>
<td>(Hum; 4 cr; prereq 1011 or equiv, 1131) Study of important texts, canonical and non-canonical, and important periods and movements that define the colonial and U.S. experience up to 1865.</td>
</tr>
<tr>
<td>Engl 2212.</td>
<td>American Literature Survey II.</td>
<td>(Hum; 4 cr; prereq 1011 or equiv, 1131) Study of selected historical and literary texts in U.S. literature, canonical and non-canonical, from 1865 to the present.</td>
</tr>
<tr>
<td>Engl 3001f.s.</td>
<td>Advanced Expository Writing.</td>
<td>(Hum; 4 cr; prereq #) Formal training in expository writing, with special attention to the ways that context and audience affect writers’ stylistic choices.</td>
</tr>
<tr>
<td>Engl 3001H.f.s.</td>
<td>Honors: Advanced Expository Writing.</td>
<td>(Hum; 4 cr; prereq participation in the Honors Program or #; A-F only) Formal training in expository writing, with special attention to the ways that context and audience affect writers’ stylistic choices.</td>
</tr>
<tr>
<td>Engl 3012.</td>
<td>Advanced Fiction Writing.</td>
<td>(ArtP; 4 cr; prereq #; offered when feasible) For experienced writers. Focus on developing skills and mastering creative and technical elements of writing fiction.</td>
</tr>
<tr>
<td>Engl 3014s.</td>
<td>Advanced Poetry Writing.</td>
<td>(ArtP; 4 cr; prereq #; offered when feasible) For experienced writers. Focus on developing skills and mastering creative and technical elements of writing poetry.</td>
</tr>
<tr>
<td>Engl 3151s.</td>
<td>Writing Revolution.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2003-04) Literary analysis of fiction, non-fiction, poetry, and drama that promoted, commented on, or responded to the American Revolution. Writers include Jefferson, Franklin, de Crevecoeur, Paine, Tyler, Frenau, Wheatley, Equiano, Rowson, Brown, Irving, and Child. Focus on the literary construction of national identity and debates about human rights, individualism, and westward expansion.</td>
</tr>
<tr>
<td>Engl 3152s.</td>
<td>19th-Century British Poetry.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) Studies of the Romantic poets and their Victorian inheritors; their momentous influence is read in the context of political and industrial revolutions, crises of faith, and the redemption of culture.</td>
</tr>
<tr>
<td>Engl 3153f.</td>
<td>Gothic Literature.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) The cultural origins of gothic literature in tension with the neoclassical values of 18th-century Britain and its persistent influence over the next two centuries (including its relationship to modern horror fiction and film). Emphasis on the ways gothic tales encode cultural anxieties about gender, class, and power.</td>
</tr>
<tr>
<td>Engl 3154f.</td>
<td>The British Novel: Conrad to Lawrence.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2003-04) British fiction from 1895-1940, focusing on the impact of colonialism and the advent of modernism.</td>
</tr>
<tr>
<td>Engl 3155s.</td>
<td>English Fiction from Jane Austen to George Eliot.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) Major 19th-century novels, focusing on their historical contexts.</td>
</tr>
<tr>
<td>Engl 3156s.</td>
<td>Modern Irish Literature.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2003-04) The poetry, fiction, and drama of Irish writers from 1890-1927, with attention to the ways that literature shaped a national identity.</td>
</tr>
<tr>
<td>Engl 3157.</td>
<td>English Renaissance Drama.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) Intensive study of Chaucer’s Canterbury Tales and some other late medieval and Early Modern drama. Students read Medieval, Elizabethan, and Jacobean plays, with special attention to the works of Shakespeare’s contemporaries (e.g. Marlowe, Jonson, Cary, Middleton, Webster).</td>
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<tr>
<td>Engl 3158f.</td>
<td>Milton.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, or 2212; not offered 2004-05) Concentration on Paradise Lost and also some of John Milton’s other poetry and prose tracts. Students study the works of Milton, with particular attention to their political and religious context. Some readings from earlier authors (such as Augustine) who influenced Milton’s view of history and theology.</td>
</tr>
<tr>
<td>Engl 3159s.</td>
<td>Shakespeare.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212) A careful reading of a representative selection of Shakespeare’s plays, with attention to their historical context, the poetic and dramatic aspects of Shakespeare’s art, and a variety of approaches to his work.</td>
</tr>
<tr>
<td>Engl 3161.</td>
<td>Medieval Literature.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212) Early and later medieval prose, poetry, and drama produced and/or widely read in England from about 700-1500.</td>
</tr>
<tr>
<td>Engl 3162.</td>
<td>Chaucer.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Concentration on the Canterbury Tales and also some of Chaucer’s shorter poetry. Students study the writing of this influential poet—especially his range of genres and language—and explore his 14th century context (e.g., politics, plague, antifeminism, anticlericalism, peasant rebellions).</td>
</tr>
<tr>
<td>Engl 3162H.</td>
<td>Honors: Chaucer.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, participation in Honors Program or #; offered when feasible) Intensive study of Chaucer’s Canterbury Tales and some of Chaucer’s shorter poetry. Students explore genre, language, and context, as well as language and critical reception.</td>
</tr>
<tr>
<td>Engl 3163.</td>
<td>Life in a Medieval City: Literature and Culture in York, 700-1500.</td>
<td>(Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212 or #; offered when feasible)</td>
</tr>
</tbody>
</table>
A May session course held in York, England. Study of the literature and history of the city from Anglo-Saxon times to the end of the Middle Ages. Focus on the role that York played as the second city of medieval England, emphasizing the diverse cultural influences on the city. Day trips to historically significant sites in the vicinity of York. (Students who have taken Hist 3104 do not receive credit for this course.)

Engl 3221. Development of the Novel in the United States. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) Study of the development of the American novel in the 19th and 20th centuries.

Engl 3231. Women and Modernism: A Room of Her Own. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-03) A study of formal and thematic innovations in fiction and poetry by women of the early 20th century. Includes Virginia Woolf, Gertrude Stein, Marianne Moore, and H.D.

Engl 3241f. Mark Twain. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2003-04) A careful reading of Twain’s major works with attention to their controversial and darkly comic view of America.

Engl 3251f. The Vietnam War in Literature and Film. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211 2212) Representations of the Vietnam War and its aftermath from multiple perspectives in poetry, prose, and film.

Engl 3261f. Modern British and American Poetry. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) A study of the continuities and break with traditions in 20th century poetry. Focus on innovations and experiments in form and theme.

Engl 3271f. Making the American Man. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of the rise of the “self-made man” and other mythic conceptions of American masculinity as they were expressed in the literature of the late 18th to early 20th century.


Engl 3342. Chicanas/os and Latinas/os in Film. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212 or #; offered when feasible) Focus on how Chicanas/os and Latinas/os have been represented in Hollywood films and how Chicana/o and Latina/o writers, actors, and filmmakers have portrayed their peoples, cultures, and various issues in films and writings.

Engl 3411f. Critical Approaches to Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212) An introduction to the major schools of literary theory and cultural analysis; particular attention to the ways in which the dialogue and debate between these approaches define the discipline of literary criticism.

Engl 3501s. The American West Revisited. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) A selection of readings that introduces and challenges the concept of the “frontier” as uncivilized land open for acquisition. Includes readings by European American explorers and settlers, Native Americans, Mexicans who inhabited the land, and African Americans who ventured West looking for freedom.


Engl 4000f.s. Variable Topics Seminars. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1131, two from 2201, 2202, 2211, 2212, #) A capstone experience for majors. Research-based study of a literary subject.

Engl 4004. Old English Language and Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #) Prose and poetry of early medieval England (650-1100) in translation and in Old English (which is studied), with attention to material (manuscripts) and cultural contexts and to reception history.

Engl 4006. Poetry and Nature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #) Exploration of poetic language as a medium for representing the natural world. Readings of poets such as A.R. Ammons, Robinson Jeffers, Emily Dickinson, Wallace Stevens, and Marianne Moore.

Engl 4007. Victorian England and the Literature of Social Change. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #) The study of several major Victorian literary works that focus on social issues like industrialism, class rivalry, public education, Darwinism, emerging democratic institutions, and women’s rights. Students engage in independent study and report-writing as important components of this course.

Engl 4008. African American Literature, Culture, Politics, 1890-1914. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #) This seminar uses selected literary texts, primary historical sources, and theoretical materials to examine the literary and cultural movements undertaken by African Americans during what is popularly called the “nadir” in their history. Authors may include Frances Harper, W.E.B. DuBois, Pauline Hopkins, James Weldon Johnson, and Charles Chesnutt.
Divisions & Courses

**European Studies (ES)**

This is an interdisciplinary major under the authority of the vice chancellor for academic affairs and dean. The program is administered by the coordinator of European studies.

**Objectives**—The purpose of the European studies program is to acquaint students with the culture and society of Europe from the Middle Ages to the present as well as Europe’s classical antecedents. The study of modern Europe reflects recent changes in Central/Eastern Europe and Russia. The approach is interdisciplinary, drawing on various fields of study.

**Major Requirements**

Major requirements include language proficiency in French, German, or Spanish equivalent to that required for the completion of the course numbered 2002 in the language. (Students planning to pursue advanced courses in French, German, or Spanish should note that proficiency beyond 2002 is sometimes a prerequisite to some of the courses listed below.) Equivalent proficiency in European languages not offered at UMM may also be used to satisfy this requirement.

In addition, 48 credits must be selected from the courses listed below, with a maximum of 16 of the credits in any one discipline.

1. Students develop a coherent program and a plan of study in consultation with their major advisers. Advisers normally are faculty with a specialty in an appropriate area. Upon approval by the advisers, the program and plan are forwarded to the vice chancellor for academic affairs for information.

2. Any directed study course for which an instructor is available is acceptable provided the subject matter is appropriate.

3. The topics courses listed below as well as topics and seminar courses in other disciplines are acceptable provided the subject matter is appropriate.

4. Students are encouraged to spend a period of time in Europe pursuing conventional coursework, independent studies, or other study abroad programs.

**Note:** Students planning to major in European studies must register with the vice chancellor for academic affairs and dean.

**Course Descriptions**

**Arth 1121. Renaissance to Modern Art.** (FA; 4 cr)
Survey of the major works of art of western Europe from 1400 to the present.

**Arth 3131s. Northern Renaissance Art.** (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2004-05)
Painting, sculpture, and architecture of France, Belgium, the Netherlands, and Germany during the late 14th century to the mid-16th century, tracing the development of oil painting and interpreting the significant imagery of the period.

**Arth 3151s. High Renaissance Art.** (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2004-05)
The art of the 15th and early 16th centuries in Italy, concentrating on the work of Leonardo da Vinci, Michelangelo, and Raphael to understand the classicizing principles of the time and place.

**Arth 3161f. 16th-Century European Art.** (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2004-05)
A study of art during a period of cultural upheaval and radical change in Italy and northern Europe from 1520 to 1590.

**Arth 3171s. Baroque Art.** (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2004-05)
A sociohistorical study of the stylistic and thematic diversity present in the works of such 17th-century masters as Caravaggio, Bernini, Velazquez, Rembrandt, and Vermeer.
Arth 3181f. Rococo to Revolution. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2003-04) An examination of the visual arts in relation to social and historical developments in 18th-century Europe, such as the Enlightenment, the French Revolution, archaeological discoveries, the Grand Tour, and the rise of art criticism.

Arth 3201f. 19th-Century European Art through Post-Impressionism. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2004-05) Survey of major movements from Neoclassicism through Romanticism, Realism, and Impressionism to Post-Impressionism. Attention is given to iconographical and formal analysis as well as to the social conditions in which artists lived and worked.

Arth 3211s. Early Modern Art: Symbolism to Surrealism. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2004-05) Survey of the major early modern movements from Symbolism through Cubism, Futurism, Expressionism, Constructivism, De Stijl, and the Bauhaus to Surrealism. Attention is given to theories of modern art as well as to formal and iconographical analyses and to the social conditions in which modern art was created and experienced.

Arth 3281s. Women and Art. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; not offered 2003-04) A historical survey of women’s roles as creators and patrons of the visual arts in Western European and American societies, from antiquity to the present.

Econ 4121s. International Trade Theory. (SS; 2 cr; prereq 3201 or #; not offered 2003-04) Overview of why trade occurs, pattern of trade and international factor movement. Effect of trade and trade policy on the economy. Current topics in trade theory.

Engl 2201f. British Literature Survey I. (Hum; 4 cr; prereq 1011 or equiv, 1131) Readings in English poetry, prose, and/or drama from the beginnings to the 18th century. Specific authors vary.

Engl 2202s. British Literature Survey II. (Hum; 4 cr; prereq 1011 or equiv, 1131) Readings in English poetry, prose, and/or drama from the 18th century to the present. Specific authors vary.

Engl 3153f. Gothic Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) The cultural origins of gothic literature as tension with the neoclassical values of 18th-century Britain and its persistent influence over the next two centuries (including its relationship to modern horror fiction and film). Emphasis on the ways gothic tales encode cultural anxieties about gender, class, and power.

Engl 3155s. English Fiction from Jane Austen to George Eliot. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2004-05) Major 19th-century novels, focusing on their historical contexts.

Engl 3156s. Modern Irish Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; not offered 2003-04) The poetry, fiction, and drama of Irish writers from 1890-1927, with attention to the ways that literature shaped a national identity.

Engl 3157. English Renaissance Drama. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Provides students with a sense of the literary, historical, and imaginative contexts surrounding early modern theatre. Students read medieval, Elizabethan, and Jacobean dramas, with special attention to the works of Shakespeare’s contemporaries (e.g. Marlowe, Jonson, Cary, Middleton, Webster).

Engl 3159s. Shakespeare. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212) A careful reading of a representative selection of Shakespeare’s plays, with attention to their historical context, the poetic and dramatic aspects of Shakespeare’s art, and a variety of approaches to his work.

Engl 3162. Chaucer. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Concentration on the Canterbury Tales and some of Chaucer’s shorter poetry. Students study the writing of this influential poet—especially his range of genres and language—and explore his 14th century context (e.g., politics, plague, anti-Semitism, anti-clericalism, anti-Semitism, peasant rebellions).

Engl 3162H. Honors: Chaucer. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, participation in the Honors Program or #; offered when feasible) Intensive study of Chaucer’s Canterbury Tales as well as some of Chaucer’s other poetry. Students explore genre, language, medieval context, and medieval and modern critical reception.

Fren 3011s. Reading and Analysis of Texts. (Hum; 4 cr; prereq 2002 or #) Introduction to representative literary works of France and the French-speaking world. Development of ease in reading French; introduction to methods for analyzing its style and meanings.

Fren 3015. French Culture I: Medieval and Early Modern France. (Hist; 4 cr; prereq 2002 or #; not offered 2003-04) This course traces the history of French culture from the Middle Ages until the French Revolution; it examines the geography, language, and institutions of medieval and early modern France.

Fren 3016. French Culture II: Modern and Contemporary France. (IP; 4 cr; prereq 2002 or #; not offered 2004-05) A study of the evolution of French culture from the French Revolution to the present as France developed into a modern, multicultural democracy.

Fren 3041s. Francophone Worlds. (IP; 4 cr; prereq 2002 or #; not offered 2004-05) Readings in a variety of cultural and literary texts from among French-language writers of Africa, the Caribbean, North America, and Europe; study of issues of national identity, race, gender, and postcolonial consciousness.

Fren 3051f. French Literature I: Medieval and Early Modern France. (Hum; 4 cr; prereq 3011; not offered 2004-05) A survey of French literature from the Middle Ages to the Enlightenment; a study of the successive ideals of feudalism, Renaissance knowledge and lyricism, classical reason and unreason, and the “Rights of Man.”

Fren 3052f. French Literature II: Revolution, Romanticism, Modernity. (Hum; 4 cr; prereq 3011; not offered 2003-04) A survey of French literature from the Enlightenment to the present: literature as the rewriting of the past and the discovery of the creative self.

Fren 4991. Independent Study in French Abroad. (IP; 4 cr; repeatable to 12 cr; prereq 2002 or #; 3021 or 3031 or 3041 recommended)
Division Structure and Course Descriptions

Ger 3102f. Survey of German Literature and Culture II. (Hum; 4 cr; prereq 3101 or #) Chronological study of German literature and its cultural background from 1830 to 1920. Selected representative works by Stifter, Buechner, Hebbel, Keller, Storm, Hauptmann, and Kaiser are read and analyzed.

Ger 3201s. German Classicism. (Hum; 4 cr; prereq 3101, 3102 or #; not offered 2004-05) Readings in aesthetic theory and exemplary works by writers of the period. Texts by Goethe and Schiller are read and analyzed in conjunction with opera librettos based on their works. Videos of Donizetti’s Mary Stuart and Verdi’s Don Carlo.

Ger 3211s. German Romanticism. (Hum; 4 cr; prereq 3101, 3102 or #; not offered 2003-04) Readings in Romantic theory and works by important authors of the period: Wackenroder, Tieck, Novalis, Eichendorff, and E.T.A. Hoffmann. Other art forms, such as music and painting supplement the literature discussions.

Ger 3300f,s. Variable Topics in German With English Discussion. (IP; 4 cr; repeatable when topic changes; open to all students; does not count toward major or minor) Topics may be an in-depth study of one author or a specific period in German literature. Seminar discussions based on individual research. Readings and discussions are in English.

Ger 3601f. Studies in German Literature. (Hum; 4 cr; prereq 3011, 3102 or #; not offered 2004-05) Selected readings in German reflecting modern literary trends. The course examines the cultural politics in the evolvement of the literature in the formerly divided Germany, using plays, novels, biography, and documentary reports. It deals with questions of literary theory, history, and sociopolitical structures.

Hist 3000. Variable Topics in History. (Hist; 4 cr; repeatable when topic changes; offered when feasible) Study of a historical topic that transcends the traditional chronological or geographical categories. Possible topics include the history of historical writing, science, and Christianity.

Hist 3100f. Variable Topics in European History I. (Hist; 4 cr; repeatable when topic changes) Political, social, intellectual, religious, and/or economic history of Europe from approximately 500-1750. Possible topics include the early Middle ages, the later Middle Ages, and early modern Europe.

Hist 3150f. Variable Topics in European History II. (Hist; 4 cr; repeatable when topic changes) Political, social, intellectual, or economic history of Europe from 1750 to the present. Possible topics include the fascist era, development of nationalism, World War I, World War II, and the era of the French Revolution and Napoleon.

Hist 3200. Variable Topics in European National History. (Hist; 4 cr; repeatable when topic changes) Political, social, intellectual, or economic history of selected European nations. Possible topics include medieval England, the Crusades, modern Britain, modern France, imperial Russia, and Soviet Russia.

Hum 1000. Variable Topics. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; offered when feasible) Opportunity to study a traditional literary or narrative form or an idea as it appears in a number of cultures. Topic to be announced.

Hum 1100. Variable Topics in Western World Literature. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; offered when feasible) Emphasis on continental works in a single genre (e.g., the novel) or from a single international literary movement (e.g., romanticism or symbolism). Topic to be announced.

Hum 1300. Variable Topics in French Literature and Culture. (See specific topics for general ed categories; 4 cr; repeatable when topic changes) This course is taught on a variety of topics such as modern French literature in translation and women authors in French. It is offered as both a regular course and an honors course. Topic to be announced.

Hum 1451s. German Literature in Film. (IP; 4 cr; does not count toward German major or minor; not offered 2004-05) Development of the German film as expressionistic art form. Film as text, film as history, film as aesthetic expression. Film presentations are in German but with English subtitles in most cases. Readings and lectures are in English.

Mus 1041f,s. Introduction to Music. (FA; 4 cr) Survey emphasizing development of an intelligent understanding and appreciation of music. For non-music majors.

Mus 3101f. Core Studies III: Medieval, Renaissance, and Baroque Music. (Hist; 4 cr; prereq 1102, major or minor or #) Historical development of Western music and representative literature of the various periods and styles.

Pol 1401f. World Politics. (IP; 4 cr) The contemporary international system, including nationalism, international political economy, foreign policy formulation, and global concerns such as the environment and conflict. North/South debate, definitions of power, the new world order, regional vs. global conflicts, and avenues of cooperation.

Pol 3352s. Political Thought: Modern. (Hum; 4 cr; prereq 1101 or #) Machiavelli; theories during the Renaissance, Reformation, and Counter-Reformation. Early modern absolutism, the emergence of modern contract theory, constitutionalism, liberalism, and utopianism.

Pol 3421s. International Organizations. (E/CR; 4 cr; prereq 1401 or #; not offered 2003-04) Origins of diplomacy and its role in maintaining communication among nations, including the recent and special role of international organizations. History of the practice of diplomacy, current bilateral diplomatic practices, and multilateral interactions as practiced through the United Nations and the League of Nations before it. Structure and functional agencies of the U.N. and role in international peacekeeping or collective security.


Pol 4301s. Contemporary Political Ideologies. (Hum; 4 cr; prereq 1101 or #) Major currents of political theory from Marx to present: Marxism, socialism, syndicalism, anarchism, fascism, political ideologies of antidemocratic thought, and totalitarian regimes.
Foreign Languages and Literatures

(See French [Fren], German [Ger], Russian [Russ], and Spanish [Span].)

UMM offers majors and minors in French, German, and Spanish. Some beginning courses in Russian also are offered. Study of foreign languages, culture, and literature may be undertaken for its own sake as part of a traditional liberal education. It is useful as well for preparation for teaching, graduate or professional work, and business careers.

French (Fren)

This discipline is in the Division of the Humanities. The French discipline gives students the language and analytic skills necessary to participate in the cultural life and appreciate the literary heritage of France and francophone countries throughout the world. French is an important language of diplomacy, commerce, health care, and research in many disciplines, such as music, art, linguistics, history, law, political science, anthropology, and philosophy.

Objectives—The French discipline is designed to teach skills necessary for communicating with a variety of French-speaking peoples and to introduce their rich cultures, including their ideas, institutions, and writings, past and present. It invites students to look at the impact these cultures have had on Western civilization and to examine all of them critically.

Major Requirements

Fren 2001—Intermediate French I
Fren 2002—Intermediate French II
Fren 3001—Conversation and Composition
Fren 3011—Reading and Analysis of Texts
Fren 3015—French Culture I: Medieval and Early Modern France or Fren 3016—French Culture II: Modern and Contemporary France
Fren 4901—Senior Seminar

Fren 4991—Independent Study in French Abroad and Fren 3061—French Language and Culture in Paris toward the major.

Minor Requirements

Fren 2001—Intermediate French I
Fren 2002—Intermediate French II
**Division Structure and Course Descriptions**

Fren 3001—Conversation and Composition
Fren 3011—Reading and Analysis of Texts
One additional French course at 3xxx or above

**Teacher Preparation Requirements**
Students seeking teaching licensure in French K-12 should refer to the Education, Secondary (SeEd) section of this catalog.

**Required Proficiency/Placement Examination**—Students who plan to complete courses in the same language they studied in high school must take the proficiency/placement examination and abide by the placement recommendation. If, after an initial exposure to the recommended course, the placement seems inappropriate, students may follow the recommendation of their language instructor as to the proper entry course.

**Study Abroad**
In light of today’s increasingly interdependent world, the UMM French faculty endorses study abroad, in combination with a French major or minor, as the most effective means by which to:

- Improve language abilities
- Broaden academic horizons
- Globalize one’s world view
- Expand career opportunities
- Advance cross-cultural and problem-solving skills
- Gain confidence in oneself personally and professionally.

**Course Descriptions**

Fren 1001f. Beginning French I. (FL; 4 cr)
An introduction to oral and written French, its basic structure, and to French culture.

Fren 1002s. Beginning French II. (FL; 4 cr; prereq 1001 or placement or #)
Continuation of 1001.

Fren 1021. French Language and Culture in Paris I. (FL; 4 cr)
Four weeks of intensive beginning French language and culture at the Sorbonne, Paris IV; guided visits to cultural and historical sites.

Fren 1021H. Honors: French Language and Culture in Paris I. (FL; 4 cr; prereq participation in Honors Program or #)
Four weeks of intensive beginning French language and culture at the Sorbonne, Paris IV; guided visits to cultural and historical sites.

Fren 1302s. French Cinema. (IP; 4 cr; prereq 2002 or equiv or #)
Same as Hum 1302. History of filmmaking in France from the Lumière brothers to the present; introduction to major trends in film theory. All films have English subtitles. Taught in English.

Fren 1302Hs. Honors: French Cinema. (IP; 4 cr; prereq 2002 or equiv, participation in Honors Program or #)
Same as Hum 1302H. History of filmmaking in France from the Lumière brothers to the present; introduction to major trends in film theory. All films have English subtitles. Taught in English.

Fren 1303. Paris as Text/Image/Sound. (IP; 4 cr)
Same as Hum 1303. Explores how representations of Paris in literature, film, music, and photography have been a key to the construction and the lived experience of the city and how new forms of writing, image-making, and sound production have emerged from the modern metropolis. Taught in English.

Fren 1303H. Honors: Paris as Text/Image/Sound. (IP; 4 cr; prereq participation in Honors Program or #)
Same as Hum 1303H. Explores how representations of Paris in literature, film, music, and photography have been a key to the construction and the lived experience of the city and how new forms of writing, image-making, and sound production have emerged from the modern metropolis. Taught in English.

Fren 1304. French Women Authors in Translation. (IP; 4 cr)
Same as Hum 1304. French women’s movements during the 20th century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide comparisons between European and global feminisms. Taught in English.

Fren 1304H. Honors: French Women Authors in Translation. (IP; 4 cr; prereq 2002 or equiv or #)
Same as Hum 1304H. Explores how representations of Paris in literature, film, music, and photography have been a key to the construction and the lived experience of the city and how new forms of writing, image-making, and sound production have emerged from the modern metropolis. Taught in English.

Fren 1311. West African Francophone Cinema. (IP; 4 cr; prereq participation in Honors Program or #)
Same as Hum 1311. Introduction to the history of cinema in French-speaking West Africa. Students learn to read African films, recognize and analyze political themes in the films, and become sensitive to issues facing many African nations in the postcolonial world. Students who wish to apply this course to their French major or minor must enroll in Fren 1311. Taught in English.

Fren 1311H. Honors: West African Francophone Cinema. (IP; 4 cr; prereq 2002 or equiv or #)
Same as Hum 1311H. Introduction to the history of cinema in French-speaking West Africa. Students learn to read African films, recognize and analyze political themes in the films, and become sensitive to issues facing many African nations in the postcolonial world. Students who wish to apply this course to their French major or minor must enroll in Fren 1311H. Taught in English.

Fren 2001f. Intermediate French I. (IP; 4 cr; prereq 1002 or placement or #)
Review of the essential structural patterns of the French language; continued development of oral, aural, reading, and writing skills based on cultural and literary texts appropriate to this level.

Fren 2002s. Intermediate French II. (IP; 4 cr; prereq 2001 or placement or #)
Review of the essential structural patterns of the French language; continued development of oral, aural, reading, and writing skills based on cultural and literary texts appropriate to this level.
Fren 3001f. Conversation and Composition. (IP; 4 cr; prereq 2002 or placement or #) Conversation, including work on sounds and sound patterns as well as vocabulary building and practice based on common situations; writing skills; and advanced grammar review.

Fren 3011s. Reading and Analysis of Texts. (Hum; 4 cr; prereq 2002 or #) Introduction to representative literary works of France and the French-speaking world. Development of ease in reading French; introduction to methods for analyzing its style and meanings.

Fren 3012. French Play. (ArtP; 2 cr; prereq 2001 or #; offered when feasible) Reading, study, and presentation of a short contemporary play. Enhances fluency and familiarity with the modern French idiom.

Fren 3015. French Culture I: Medieval and Early Modern France. (Hist; 4 cr; prereq 2002 or #; not offered 2003-04) This course traces the history of French culture from the Middle Ages until the French Revolution; it examines the geography, language, and institutions of medieval and early modern France.

Fren 3016. French Culture II: Modern and Contemporary France. (IP; 4 cr; prereq 2002 or #; not offered 2004-05) A study of the evolution of French culture from the French Revolution to the present as France developed into a modern, multiculural democracy.

Fren 3041s. Francophone Worlds. (IP; 4 cr; prereq 2002 or #; not offered 2004-05) Readings in a variety of cultural and literary texts from among French-language writers of Africa, the Caribbean, North America, and Europe; study of issues of national identity, race, gender, and postcolonial consciousness.

Fren 3051f. French Literature I: Medieval and Early Modern France. (Hum; 4 cr; prereq 3011; not offered 2004-05) A survey of French literature from the Middle Ages to the Enlightenment; a study of the successive ideals of feudalism, Renaissance knowledge and lyricism, classical reason and unreason, and the “Rights of Man.”

Fren 3052f. French Literature II: Revolution, Romanticism, Modernity. (Hum; 4 cr; prereq 3011; not offered 2003-04) A survey of French literature from the Enlightenment to the present: literature as the rewriting of the past and the discovery of the creative self.

Fren 3060. French Language and Culture in Paris II. (IP; 4 cr, repeatable to 8 cr; prereq 1002) Four weeks of intermediate or advanced French language study at the Sorbonne, Paris IV: guided visits to cultural and historical sites.

Fren 3060H. Honors: French Language and Culture in Paris II. (IP; 4 cr, repeatable to 8 cr; prereq 1002, participation in Honors Program or #) Four weeks of intermediate or advanced French language study at the Sorbonne, Paris IV: guided visits to cultural and historical sites.

Fren 3071. French Fairy Tale and the Fantastic. (Hum; 4 cr; prereq 3011) Study of the marvelous and the fantastic from the 17th century to the end of the 19th century. Readings from Charles Perrault, Mme Leprince de Beaumont, Mme d’Aulnoy, Guy de Maupassant, and others.

Fren 3091. French Poetry: Survey, Analysis, Creation. (Hum; 4 cr; prereq 3011; not offered 2004-05) Survey of French poetry from the Middle Ages to the present, with emphasis on 19th and 20th centuries. Revisiting the fundamentals of French poetry: rhyme, meter, and the evolution of poetic form. Mastery of the analyse de texte method, the arts of recitation, pastiche, and poetic creation.

Fren 4011s. Thème et Version. (Hum; 4 cr; prereq 3001 or equiv or #; offered when feasible) The art of translation applied to everyday discourse, literary texts, and a number of professional fields: journalism, Franco-American business, and political, social, and natural sciences with a particular emphasis on specialized vocabularies and advanced grammar and syntax.

Fren 4021f. Readers’ Theatre. (Hum; 4 cr; prereq 2002 or #; offered when feasible) Improvisation on themes and situations. The study of texts of France and other French-speaking countries suitable for oral interpretation, and the preparation of a program.

Fren 4100f,s. Variable Topics in French. (Hum; 4 cr; repeatable when topic changes; prereq 2002 or #; offered when feasible) Topics in the language, culture, or literature of France or other French-speaking peoples. Topics to be announced.

Fren 4901f,s. Senior Seminar. (4 cr; prereq 3001) A capstone experience for majors, consisting of a substantial scholarly or creative work (at the undergraduate level) within the discipline. Conducted as a seminar. Topics vary.

Fren 4991. Independent Study in French Abroad. (IP; 4 cr; repeatable to 12 cr; prereq 2002 or #; 3021 or 3031 or 3041 recommended) Fren 4993f,s. 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq #) Fren 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, #) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Geography (Geog) This discipline is in the Division of the Social Sciences.

Objectives—Geography courses focus on basic concepts of the field and deal with both societal relationships and the physical environment. Geog 1001 satisfies the geography requirement for students seeking secondary school teaching licensure in the social sciences.

Course Descriptions Geog 1001s. Problems in Geography. (Envt; 4 cr; offered when feasible) Basic concepts and questions of geography. The terminology of geography; some modern trends in geography; interpretation of geographical data; select problems of human, physical, economic, and cultural geography.
Geology (Geol)

This discipline is in the Division of Science and Mathematics. Geology currently offers courses that satisfy a variety of requirements as well as a curriculum leading to a bachelor of arts degree in geology.

Objectives—The geology curriculum serves those interested in a broader knowledge of their natural environment and the geological sciences as part of their liberal arts education; provides a firm foundation in geology, related sciences, and mathematics for students interested in the investigation and solution of geologic problems; prepares students for graduate study in the geosciences and related areas; provides the necessary background in earth science for those who plan to teach in this field at the secondary level; and serves those in other professional or interdisciplinary programs who need geology as a related subject.

Major Requirements

Geol 1101—Physical Geology
Geol 2051—Field and Research Methods in Geology
Geol 2101—Mineralogy and Crystallography
Geol 2111—Igneous and Metamorphic Petrology
Geol 2121—Sedimentology and Stratigraphy
Geol 2051—Field and Research Methods in Geology I
Geol 1101—Physical Geology

Minor Requirements

Geol 1101—Physical Geology
Geol 2051—Field and Research Methods in Geology I
Geol 2101—Mineralogy and Crystallography
Geol 2111—Igneous and Metamorphic Petrology
Geol 2121—Sedimentology and Stratigraphy

Geol 3051—Field and Research Methods in Geology II
Chem 1101—General Chemistry I
Chem 1102—General Chemistry II

4 additional credits in Geol courses numbered 2xxx or above; a maximum of 3 credits of directed study may be used to satisfy elective requirements.

Up to 8 credits of coursework with a grade of D may be used to meet the minor requirements if offset by an equivalent number of credits of A or B.

Teacher Preparation Requirements

Students seeking teaching licensure in earth and space science 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

Geol 1001s. Environmental Geology: Geology in Daily Life. (Sci; 4 cr; may not count toward geol major or minor)

Effects of volcanoes, earthquakes, and floods on humans and civilization; geologic problems associated with rural and urban building, waste management, and waste disposal; the importance of geologic knowledge in the discovery of fossil fuels and mineral resources. (4 hrs lect)

Geol 1011f. Geology of the National Parks. (Sci; 4 cr; may not count toward geol major or minor; offered when feasible)

Exploration of the fundamental aspects of the geosciences: earth materials, geologic time, plate tectonics, and the evolution of landscapes by examining the geology and geologic history of the U.S. national parks. (4 hrs lect)

Geol 1012f. Oceanography. (Sci; 4 cr; may not count toward geol major or minor; not offered 2004-05)

Physiography and geological evolution of ocean basins; marine sedimentation; coastal processes and environments; chemical evolution, and chemical and physical properties of seawater; ocean-atmosphere interactions; deep-ocean circulation; waves and tides; marine ecosystems. (4 hrs lect)

Geol 1101s. Physical Geology. (Sci-L; 4 cr)

Introduction to the materials that make up the Earth and the structures, surface features, and geologic processes involved in its origin and development. Lab work includes study of the major constituents of the Earth’s crust, including the important rocks and minerals; study of surface and geologic features using aerial photographs, topographic maps, and satellite imagery. (3 hrs lect, 3 hrs lab)

Geol 1101ff. Honors: Physical Geology. (Sci-L; 4 cr; prereq participation in Honors Program or #; not offered 2004-05)

Introduction to planet Earth and the surface features, structures, and physical and chemical processes involved in its origin and development. Lab work focuses on study of the major constituents of the Earth’s crust, including the important rocks and minerals; study and interpretation of surface and geologic features using aerial photographs, topographic maps, and satellite imagery; modeling, analysis, and interpretation of geological processes and data. (3 hrs lect, 3 hrs lab and discussion, 1-day field trip)
Geol 2011f. Field and Research Methods in Geology. (Sci-L; 2 cr; prereq 1101 or 1101H, coreq 2101)
Introduction to geologic research methods and field techniques; use of library resources; geological field methods, geologic sampling, fundamentals of mapping and data collecting using Brunton compass and Global Positioning System (GPS) techniques. (2 hrs lect., 2 hrs lab)

Geol 2101f. Mineralogy and Crystallography. (Sci-L; 4 cr; prereq 1101 or 1101H, Chem 1101 or #)
Classification, identification, physical and chemical properties, origin and natural occurrence of major mineral groups. Lab study of crystal systems by use of models; introduction to optical aspects and physical and chemical testing. (3 hrs lect, 6 hrs lab and field trips)

Geol 2111s. Igneous and Metamorphic Petrology. (Sci-L; 4 cr; prereq 2101)
Classification, composition, genesis, and natural occurrence of igneous and metamorphic rocks; lab study and identification of rocks by various macroscopic, microscopic, and chemical means. (3 hrs lect, 6 hrs lab and field trips)

Geol 2121f. Sedimentology and Stratigraphy. (Sci-L; 4 cr; prereq 2101)
Processes of sedimentation, including origin, transportation, and deposition of sediments; interpretation of sedimentary environments. Principles of stratigraphy and their applications. Lab work includes sedimentary particle analysis; stratigraphic sections; and interpretation of ancient sedimentary environments based on stratified sequences of sedimentary rock. (3 hrs lect, 3 hrs lab and field trips)

Geol 2131s. Geomorphology. (Sci; 4 cr; prereq 1101 or 1101H; not offered 2003-04)
Study of the Earth’s surface and surficial processes; weathering, erosion, and deposition, and the resulting landforms and products; the history of the study of landforms in the United States. (3 hrs lect, 3 hrs lab and field trips)

Geol 2141f. Glacial and Quaternary Geology. (Sci; 4 cr; prereq 1101 or 1101H; not offered 2001-02)
Glaciers, glaciology, glacial deposition, glacial erosion; climatic change and the growth and advance of ice sheets; effect of glaciations on flora and fauna. (3 hrs lect, 3 hrs lab and field trips)

Geol 2151s. Historical Geology: Earth History and Changing Scientific Perspectives. (Sci-L; 4 cr)
Development of fundamental theories and principles of geology, including stratigraphy, uniformitarianism, geologic time, evolution, and plate tectonics. Emphasis on how geological thought has evolved through time as the scientific, religious, and political climate has changed. Discussion of the Earth’s history and science’s changing views of the Earth; continental movements, mountain building, and the evolution and development of organisms and ecosystems. Lab experience on methods of interpreting Earth’s history from rocks, fossils, and structures and solving geological problems. (3 hrs lect, 3 hrs lab)

Geol 3000f.s. Variable Advanced Topics in Geology. (Sci; 4 cr; repeatable when topic changes; prereq #)
Lecture or lecture and lab treatment of topics not included in the regular curriculum. Possible topics include economic geology and global tectonics.

Geol 3061. Introduction to Soils and Soil Geochemistry. (Sci; 2 cr; prereq 1101 or 1101H, Chem 1101 or #)
Nature, properties, classification and origin of soils; pedogenesis as a function of weathering and erosion; soil geochemistry and soil biochemistry; soil hydrology.

Geol 3101s. Structural Geology. (Sci-L; 4 cr; prereq 2111 or #)
Elementary concepts of stress and strain, theory of rock deformation; description and classification of structures in the Earth’s crust; application of geometric, analytical, and map interpretation techniques to solving structural problems; field mapping problems. (3 hrs lect, 3 hrs lab and field trips)

Geol 3111s. Introduction to Invertebrate Paleontology. (Sci-L; 4 cr; prereq 1121 or #; not offered 2004-05)
Morphology and evolutionary record of the major invertebrate groups characterized by significant fossil representation. Principles of evolution, paleoecology, and paleoenvironmental interpretations of fossil assemblages. (3 hrs lect, 3 hrs lab)

Geol 3196. Geology Field Camp. (Sci; 6 cr; prereq 1121, 2121, 3101)
Identification and solution of geological problems in the field, including stratigraphic correlation, construction of cross sections and geologic maps, report preparation, field mapping, structural analysis, and environmental interpretation of Precambrian and Paleozoic rock units. Offered only during summer at a 6-week residential camp.

Geol 3401f. Geophysics. (Sci; 4 cr; prereq Math 1101, Phys 1101 or #; not offered 2004-05)
Propagation of seismic waves, earthquake seismology, and the structure of the Earth; the origin and nature of the Earth’s magnetic and gravitational fields; the Earth’s internal production and flow of heat; composition, state, and rheology of the Earth’s interior; plate tectonics and elementary geodynamics. (4 hrs lect)

Geol 3411s. Advanced Stratigraphy: Subsurface Methods. (Sci; 4 cr; prereq 1101 or 1101H, 2121 or #; not offered 2004-05)
Techniques and methods of investigating subsurface geologic and stratigraphic features. Includes a discussion of drilling methods, subsurface mapping methods, and techniques for interpreting subsurface geologic trends. (2 hrs lect, 4 hrs lab)

Geol 3421s. Airphoto Interpretation. (Sci; 4 cr; prereq 1101 or 1101H or #; not offered 2003-04)
Interpretation of geologic landforms, cultural features, and vegetative patterns as viewed from aerial photographs. Geologic features studied include volcanic, mass wasting, and glacial flow features; coastal and fluvial features; groundwater solution features; and structural features. (2 hrs lect, 4 hrs lab)

Geol 3501f. Hydrology. (Sci; 4 cr; prereq Math 1101 or #)
Elements of surface water hydrology; groundwater occurrence and aquifer characteristics; groundwater flow mechanics and flow nets; well hydraulics; groundwater contamination, contaminant transport, and remediation; management and legal aspects of water resources. (4 hrs lecture)

Geol 3561f. Introduction to Geochemistry. (Sci; 4 cr; prereq Chem 1101 or #; not offered 2003-04)
Applying chemistry to geologic problems such as weathering, sedimentary processes and diagenesis, formation of evaporites and ore deposits, magma genesis and magmatic differentiation; thermodynamic functions and the Phase Rule; oxidation potential and Eh-pH diagrams; isotopic geochemistry and geochronology. (3 hrs lect)
Division Structure and Course Descriptions

Geol 4130. Advanced Geomorphology. (Sci; 4 cr; repeatable to 8 cr; prereq 2131; offered when feasible)
Surficial processes and the resulting landforms; may include catastrophic events, large lakes, arid regions geomorphology or the evolution of the Badlands. (3 hrs lect, 3 hrs lab and field trips)

Geol 4140f. Advanced Glacial and Quaternary Geology. (Sci; 4 cr; repeatable to 8 cr; prereq 2141; not offered 2004-05)
Glacial geology and glacial history; may include pre-pleistocene glaciations, quaternary stratigraphy, or subglacial processes. (3 hrs lect, 3 hrs lab and field trips)

Geol 4901f. Geology Senior Seminar. (1 cr; required for geol major; prereq #)
Capstone experience in geology. Discussion of selected topics of geologic interest.

Geol 4902s. Geology Senior Seminar Presentations. (1 cr; required for geol major; prereq #)
Capstone experience in geology. Presentations of research projects.

Geol 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

Continuing Education Courses

Geol 2301. CE: Geology of Minnesota. (Sci-L; 4 cr; offered summers as feasible)
Active, hands-on learning both in class and on class field trips to selected localities throughout the state. Field trips include: Pipestone National Monument; glacial geology of west-central Minnesota; geology of the Minnesota River Valley; basalts of Taylors Falls/ Interstate State Park; Minnesota’s Iron Ranges; Isle Royale National Park.

German (Ger)

This discipline is in the Division of the Humanities. The purpose of the German curriculum is to introduce students to the language, literature, and culture of German-speaking countries. The courses are designed to promote a global perspective by encouraging students to take a close look at another culture and in this way become aware of both the diversity and similarity among all people. The courses satisfy general education and major/minor requirements and prepare students for teaching or graduate study.

Objectives—Students develop a number of skills in German, including comprehension and speaking, reading and writing, in order to communicate effectively in German about everyday situations, literature, and culture. On all levels, students gain an awareness of the structure of languages and facility with the German idiom, enabling them to read and write reports and papers. In literature seminars, students learn aesthetic appreciation through the interpretation of texts and to organize their thoughts for effective argumentation. Many German courses give students an interdisciplinary perspective, using history, art, architecture, music, and film. Cultural immersion abroad increases fluency and proficiency. The German program prepares its graduates for careers in teaching, business, political science, medicine, music, psychology, philosophy, and law.

Major Requirements

Ger 2001—Intermediate German I
Ger 2002—Intermediate German II
Ger 2011—Beginning German Conversation and Composition
Ger 3011—Readings in German
Ger 3021—Advanced German Conversation and Composition
Ger 3101—Survey of German Literature and Culture I
Ger 3102—Survey of German Literature and Culture II
Ger 3201—German Classicism
or Ger 3211—German Romanticism
two additional elective 3xxx courses (4 credits each) in German

Courses with grades of D may not be used to meet the major requirements.

Minor Requirements

Ger 2001—Intermediate German I
Ger 2002—Intermediate German II
Ger 2011—Beginning German Conversation and Composition
Ger 3011—Readings in German
Ger 3021—Advanced German Conversation and Composition
Ger 3101—Survey of German Literature and Culture I
Ger 3102—Survey of German Literature and Culture II
one additional elective 3xxx course (4 credits each) in German

Courses with grades of D may not be used to meet the minor requirements.

Teacher Preparation Requirements

Students seeking teaching licensure in German K-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Required Proficiency/Placement Examination—Students who plan to complete courses in the same language they studied in high school must take the proficiency/placement examination and abide by the placement recommendation. If, after an initial exposure to the recommended course, the placement seems inappropriate, students may follow the recommendation of their language instructor as to the proper entry course.
Study Abroad
In light of today’s increasingly interdependent world, the UMM German faculty endorses study abroad, in combination with a German major or minor, as the most effective means by which to:

- Improve language abilities
- Broaden academic horizons
- Globalize one’s world view
- Expand career opportunities
- Advance cross-cultural and problem-solving skills
- Gain confidence in oneself personally and professionally.

Study in Austria and Germany—Students interested in a foreign study experience may spend a semester or a full year in Berlin (Humboldt University), Vienna (Center for Central European Studies), or Freiburg (University of Freiburg) through the Institute of European Studies (Humboldt University), Vienna (Center for Central European Studies), or Freiburg (University of Freiburg) through the Institute of European Studies. Language prerequisites vary for individual programs. Internships are available in all of them. Through the Global Campus, students may also participate in bilateral exchanges to Austria with Karl Franzens University in Graz and with the University of Salzburg.

Course Descriptions
Ger 1001f. Beginning German I. (FL; 4 cr)
Introduction to German as it is spoken and written presently. The course acquaints students with the basic sounds, structures, and vocabulary of German and enables them to understand, read, and write the language and to communicate in German about everyday situations. It makes them aware of the relationship between culture and language.

Ger 1002s. Beginning German II. (FL; 4 cr; prereq 1001 or placement or #)
Continuation of 1001.

Ger 2001f. Intermediate German I. (IP; 4 cr; prereq 1002 or placement or #)
The skills of listening, reading, and writing are enforced through grammar review and discussion of modern texts.

Ger 2002s. Intermediate German II: German Culture and Civilization. (IP; 4 cr; prereq 2001 or #)
A variety of readings in German to examine the historical and contemporary aspects of the culture of German-speaking countries. Students give oral reports and write papers about art, architecture, literature, philosophy, or music. They keep a journal of visits to sites on the World Wide Web relevant to topics such as geography, history, and culture.

Ger 2011f. Beginning German Conversation and Composition. (IP; 4 cr; prereq 1002 or #; may enroll concurrently with 2001)
This course builds on grammar and structure learned in the beginning sequence. Students engage in discussions about daily activities and topics of their interest. Models for writing and speaking are provided in the form of short stories, newspaper articles, and literary excerpts. Visual materials serve as points of departure for conversation and composition.

Ger 3011f. Readings in German. (IP; 4 cr; prereq 2002 or #; soph or higher recommended)
Students read and analyze modern texts in order to advance their ability to comprehend and discuss various literary styles. This course is a prerequisite for more advanced courses in the major and minor.

Ger 3021s. Advanced German Conversation and Composition. (IP; 4 cr; prereq 3001, 3101 or #)
This course helps advanced-intermediate and advanced students learn to speak and write more precisely, idiomatically, and accurately. It is a refinement and extension of language skills through consideration of contemporary issues in newspapers, magazines, and literary readings.

Ger 3031. German Play. (ArtP; 4 cr; prereq 2001 or #; offered when feasible)
Reading, study, and presentation of a short contemporary play. Enhances fluency and familiarity with the modern German idiom.

Ger 3101s. Survey of German Literature and Culture I. (Hum; 4 cr; prereq 3011 or #)
Chronological study of German literature and its cultural background from the early beginnings through the early 19th century. Selected representative works are read and analyzed.

Ger 3102f. Survey of German Literature and Culture II. (Hum; 4 cr; prereq 3011 or #)
Chronological study of German literature and its cultural background from 1830 to 1920. Selected representative works by Stifter, Buechner, Hebbel, Keller, Storm, Hauptmann, and Kaiser are read and analyzed.

Ger 3201s. German Classicism. (Hum; 4 cr; prereq 3101, 3102 or #; not offered 2004-05)
Readings in aesthetic theory and exemplary works by writers of the period. Texts by Goethe and Schiller are read and analyzed in conjunction with opera librettos based on their works. Videos of Donizetti’s Mary Stuart and Verdi’s Don Carlo.

Ger 3211s. German Romanticism. (Hum; 4 cr; prereq 3101, 3102 or #; not offered 2003-04)
Readings in Romantic theory and works by important authors of the period: Wackenroder, Tieck, Novalis, Eichendorff, and E.T.A. Hoffmann. Other art forms, such as music and painting supplement the literary discussions.

Ger 3221s. Studies in German Drama. (Hum; 4 cr; prereq 3101, 3102 or #; not offered 2003-04)
Selected works by contemporary German, Austrian, and Swiss playwrights: Brecht, Duerrenmatt, Frisch, Handke, Horvath, and Hacks.

Ger 3300f/s. Variable Topics in German With English Discussion. (IP; 4 cr; repeatable when topic changes; open to all students; does not count toward major or minor)
Topics may be an in-depth study of one author or a specific period in German literature. Seminar discussions based on individual research. Readings and discussions are in English.

Ger 3400f/s. Variable Topics in German With German Discussion. (IP; 4 cr; repeatable when topic changes; prereq 3101, 3102 or #; offered when needed)
Same content as 3300, except readings and discussions are in German. However, for study abroad, advanced students in German complete an in-depth project in an area of their interest. This may consist of a number of papers and/or a journal. These students should discuss their topic in advance with the instructor.
Division Structure and Course Descriptions

Ger 3501s. Women's Issues in Contemporary German Culture. (IP; 4 cr; prereq 3101 or 3102 or #; not offered 2004-05) Focus is on the German women's movement during the twentieth century, historical relationship of gender and class, and lives of women from various ethnic backgrounds in Germany and Austria. Short stories, essays, and poems document the evolution of feminist literary theory in German studies.

Ger 3601f. Studies in German Literature. (Hum; 4 cr; prereq 3011, #; not offered 2004-05) Selected readings in German reflecting modern literary trends. The course examines the cultural politics in the evolvement of the literature in the formerly divided Germany, using plays, novels, biography, and documentary reports. It deals with questions of literary theory, history, and sociopolitical structures.

Ger 3611f. Studies in Austrian Literature. (Hum; 4 cr; prereq 3011 or #; not offered 2003-04) Selected readings in Austrian literature from 1875 to 1925, including Marie von Ebner-Eschenbach, Rainer Maria Rilke, Arthur Schnitzler, and Hugo von Hofmannsthal. Historical background for the period through Brigitte Hamann's biography of Empress Elisabeth and the modern musical Elisabeth, as well as the operetta Die Fledermaus and Istvan Szabo's film Oberst Redl.

Ger 3601f. Studies in German Literature. (Hum; 4 cr; prereq 3011 or #; not offered 2004-05) Selected readings in Austrian literature from 1875 to 1925, including Marie von Ebner-Eschenbach, Rainer Maria Rilke, Arthur Schnitzler, and Hugo von Hofmannsthal. Historical background for the period through Brigitte Hamann's biography of Empress Elisabeth and the modern musical Elisabeth, as well as the operetta Die Fledermaus and Istvan Szabo's film Oberst Redl.

Ger 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr per sem; prereq @) Ger 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

History (Hist)

This discipline is in the Division of the Social Sciences.

Objectives—The history curriculum is designed to introduce students to the study of the human past. Students majoring in history learn to approach decision-making with an awareness of a broad range of choices; learn to think critically and communicate their ideas effectively; integrate their academic study with their intellectual and moral maturation; understand the construction of historical knowledge; and learn how to learn. The curriculum emphasizes the role of the student as an active learner and encourages individualized learning experiences, including those outside of established coursework, and the development of close working relationships between students and faculty.

Major Requirements

Students should develop a coherent program of study in consultation with their major adviser. The student and adviser must meet to plan the student’s course of study and ensure that the major encompasses breadth across regions and time periods. The student’s plan must involve at least one western and one non-western course. The student must bring a list of history courses completed and ongoing.

When the student applies for graduation the student and adviser must meet:

- to document that the student has successfully demonstrated breadth across regions and time periods in the major.
- to discuss ways in which the student perceives history and historical questions as a result of thinking about history at UMM.
- to evaluate what historical skills and knowledge the student has gained while studying history at UMM. Supporting evidence of such skills and knowledge may include successful papers, tutorials, student initiated studies, etc.

The adviser must keep a record of this meeting.

Hist 1101—Introduction to World History to 1500 or Hist 1102—Introduction to World History Since 1500
Hist 4110-4120—Tutorial in History
28 additional credits in Hist courses

Courses with grades of D may not be used to meet the major requirements.

Minor Requirements

Minor requirements include Hist 1101 or 1102 and four additional courses of which at least three are at 2xxx or higher. There should be evidence of work in at least two geographic areas, with at least one of these in a non-Western area.

Teacher Preparation Requirements

Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

Hist 1101f. Introduction to World History to 1500. (Hist; 4 cr) Methods, themes, and problems in the study of world history to 1500.
Hist 1102s. Introduction to World History Since 1500. (Hist; 4 cr) Methods, themes, and problems in the study of world history since 1500.
Hist 1501s. Introduction to Asian Civilization. (IP; 4 cr) History of major civilizations of Asia to the present.
Hist 1601s. Latin American History: A Basic Introduction. (IP; 4 cr) Methods, themes, and problems in the study of Latin American history.
Hist 2001. Introduction to the Historian's Craft. (Hist; 4 cr; recommended for students new to the history major or seriously considering the history major; offered when feasible) A brief introduction to the historian’s craft using readings and analysis of outstanding examples of that craft.
Hist 3000. Variable Topics in History. (Hist; 4 cr; repeatable when topic changes; offered when feasible)
Study of a historical topic that transcends the traditional chronological or geographical categories. Possible topics include the history of historical writing, science, and Christianity.

Hist 3001f. Families Through the Prism of Memory, Genealogy, and History. (Hist; 4 cr)
Historical and genealogical approach to the study of family.

Hist 3002f. Military Strategy. (Hist; 4 cr; offered when feasible)

Hist 3003s. World War I. (Hist; 4 cr; offered when feasible)

Hist 3004f. Africa to 1700. (Hist; 4 cr)

Hist 3005s. Africa Since 1700. (Hist; 4 cr)

Hist 3031. Cross-Cultural Contacts in the Medieval World. (IP; 4 cr; offered when feasible)
Examination of the economic, cultural, religious, and political contacts between Europe, Asia, and Africa in the period 1000-1500.

Hist 3100. Variable Topics in European History I. (Hist; 4 cr; repeatable when topic changes)
Political, social, intellectual, religious, and/or economic history of Europe from approximately 500-1750. Possible topics include the early Middle ages, the later Middle Ages, and early modern Europe.

Hist 3102. Early Modern Europe to 1750. (Hist; 4 cr)
Survey of historical developments in Europe from about 1350 to 1750.

Hist 3105f. Early Medieval Europe. (Hist; 4 cr; offered when feasible)
Survey of historical developments in Europe between 500 and 1100.

Hist 3106s. Late Medieval Europe. (Hist; 4 cr; offered when feasible)
Survey of historical developments in Europe between 1100 and 1500.

Hist 3150f. Variable Topics in European History II. (Hist; 4 cr; repeatable when topic changes)
Political, social, intellectual, or economic history of Europe from 1750 to the present. Possible topics include the fascist era, development of nationalism, World War I, World War II, and the era of the French Revolution and Napoleon.

Hist 3151f. Modern Europe. (Hist; 4 cr)

Hist 3152. Modern Middle East from Imperialism to Independence, 1876-1948. (Hist; 4 cr; offered when feasible)

Hist 3152H. Honors: Modern Middle East, Imperialism to Independence, 1876-1948. (Hist; 4 cr; prereq participation in Honors Program or #; offered when feasible)

Hist 3153. The Balkans, Balkanization, and Modernity, 1789-1989. (Hist; 4 cr; offered when feasible)
Study of the complex identity of the Balkans from the period of the Enlightenment to the post-communist years.

Hist 3200. Variable Topics in European National History. (Hist; 4 cr; repeatable when topic changes)
Political, social, intellectual, or economic history of selected European nations. Possible topics include medieval England, the Crusades, modern Britain, modern France, imperial Russia, and Soviet Russia.

Hist 3202f. Russian Revolution. (Hist; 4 cr)

Hist 3204. Nazi Germany. (Hist; 4 cr; offered when feasible)

Hist 3205. 19th-Century Russian Society. (Hist; 4 cr; offered when feasible)

Hist 3206f. Knights/Peasants/Bandits in Medieval England, 1066-1485. (Hist; 4 cr; not offered 2003-04)
A practical guide on how to survive the Middle Ages. Focusing on social history, it explores the way that ordinary and some not-so-ordinary people coped with the major historical events that occurred in England from the Norman Conquest to the rise of the Tudor dynasty. Study of the impact of the Norman Conquest on the Anglo-Saxon population, the hardships and opportunities faced by serfs and free peasants, the rewards and responsibilities of being a member of the nobility, and the growth of towns and emergence of a “middle class.”

Hist 3207s. The Crusades. (Hist; 4 cr; not offered 2004-05)
The European crusades from 1000-1500, with emphasis on diverse responses particularly, by both Muslims and Christians.

The experience of the original Americans and their interaction with later immigrants.

Hist 3300. Variable Topics in Colonial and U.S. History Before 1860. (See specific topics for general ed categories; 4 cr; repeatable when topic changes)
Possible topics include societies of colonial America, the creation of the American Republic, race and culture in early America, and slavery.

Hist 3301f. Red, White, and Black: Race and Culture in Early America. (HDiv; 4 cr; not offered 2004-05)

Hist 3302. African American History to 1865. (HDiv; 4 cr)
The African-American experience in historical perspective: African origins; slavery, struggles for freedom and equality; cultural, economic, political, and social development in a slave society.

Hist 3350. Variable Topics in U.S. History Since 1860. (See specific topics for general ed categories; 4 cr; repeatable when topic changes)
Possible topics include the Civil War era, America industrialization, World War II, the American presidency in the 20th-century, and the 1960s.

Hist 3351f. The U.S. Presidency Since 1900. (SS; 4 cr; not offered 2003-04)

Hist 3352s. The U.S. 1960s. (Hist; 4 cr)

Hist 3353s. World War II. (Hist; 4 cr; offered when feasible)

Hist 3354. U.S. Wars Since World War II. (Hist; 4 cr; offered when feasible)

 Hist 3355. U.S. in Transition, 1877-1920. (Hist; 4 cr; offered when feasible)
Topics, themes, and problems in U.S. history, 1877 to 1920.

Hist 3356. Civil Rights Movement, 1954-1974. (Hist; 4 cr; offered when feasible)
Hist 3357. African American History Since 1865. (HDiv; 4 cr; offered when feasible)
The African-American experience in historical perspective: the emancipation era; struggles for freedom and equality after slavery; cultural, economic, political and social development in an industrial and post-industrial society.

Hist 3358. Civil War and Reconstruction. (Hist; 4 cr; offered when feasible)
Origin, context, and significance of the Civil War and Reconstruction.

Hist 3450s. Variable Topics in U.S. History. (See specific topics for general ed categories; 4 cr; repeatable when topic changes)
Possible topics include the history of American immigration, education, race relations in the United States, and studies in American biography.

Hist 3451s. Facing West. (HDiv; 4 cr; offered when feasible)
Hist 3452. Minnesota History. (Hist; 4 cr; offered when feasible)
Examination of the social, cultural, and political history of Minnesota; emphasis on ethnicity, political radicalism, and rural life.

Hist 3452H. Honors: Minnesota History. (Hist; 4 cr; prereq participation in Honors Program or #; offered when feasible)
Examination of the social, cultural, and political history of Minnesota; emphasis on ethnicity, political radicalism, and rural life. The honors section emphasizes intensive reading and discussion; and requires the completion of a major research paper utilizing primary sources.

Hist 3453s. The American Presidency, 1789-1900. (Hist; 4 cr)

Hist 3455f. Immigration. (Hist; 4 cr)
American immigration history from the colonial period to the present.

Hist 3456. History of Religion in America. (Hist; 4 cr; offered when feasible)
The history of religion in American life. Emphasis on the experience of ordinary Americans as they used religion in response to dramatic social, cultural, and political change. Religious diversity and the extent to which the American political and cultural environment has alternately encouraged and frustrated specific sorts of religious expression. Topics include New England witchcraft, the First and Second Great Awakenings, Native American belief systems, nativism and Anti-Catholicism, and fundamentalist movements.

Hist 3457. American Biography and Autobiography. (Hist; 4 cr; offered when feasible)
Seminar and readings in biography and autobiography; a long paper on an aspect of the biography of an American of the student’s choice.

Hist 3458. Public History. (Hist; 4 cr; offered when feasible)
Introduction to methods and approaches to public history, drawing from the West Central Historical Research Center and UMM archives.

Hist 3500. Variable Topics in Modern Asian History. (IP; 4 cr; repeatable when topic changes; offered when feasible)
Examines a selected topic in the political, social, intellectual, or economic history of modern Asia.

Focus on the history and culture of Vietnam and on the American war in Vietnam.

Hist 3550f. Variable Topics in Asian National History. (IP; 4 cr; repeatable when topic changes)
Topics in the history of selected Asian nations.

Hist 3551. Modern Japan. (IP; 4 cr; offered when feasible)
Possible topics include modern Japan’s place in world economics and World War II.

Hist 3552. History of China. (IP; 4 cr; offered when feasible)

Hist 3600f. Variable Topics in Latin American History. (IP; 4 cr; repeatable when topic changes)
Political, economic, social, cultural, and national history of Latin America. Possible topics include Cuban or Mexican revolutions, dependence and underdevelopment, great books on Latin America, and Brazil.

Hist 3601f. Great Books. (IP; 4 cr)
A look at history through great books.

Hist 3700. Variable Topics in the History of Women. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or 1102 or 1301, WoSt 1101)
Possible topics include a historical study of women and religion, a historical study of thought about American women, a cross-cultural study of the history of women.

Hist 3701s. Women and Religion: A History. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101)
A historical discussion of women in non-Western and Western religions.

Hist 3702f. The History of Women in the West. (HDiv; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible)
Focuses on the intellectual as well as political, social, and economic history of pre-European, western European, and American women.

Hist 3703s. 20th-Century European Women. (Hist; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101)
Social history of 20th-century European women.

Hist 3704. Women in the Middle Ages. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; not offered 2004-05)
Examination of lives of women in Europe from about 500 to 1500.

Hist 3705s. History of Ideas About Women. (E/CR; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101)
Changing ideas about the ethical treatment of women and women’s civic responsibilities. Includes classical ideas to modern.

Hist 3706. Women in Early Modern Europe. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; not offered 2004-05)
Examination of lives of women in Europe from about 1350 to 1750.

Hist 4110-4120f,s. Tutorial in History. (1 cr–4110, 4 cr–4120; no credit for 4110 until 4120 completed; repeatable to 10 cr; prereq history major or #)
A culminating historical research project. Students who wish to graduate in December must begin this project the preceding spring. Students should register for 4110 before 4120.

Hist 3993f,s. 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)
Hum 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Honors Program
(See Academic Information section for detailed program requirements and a sample course list.)

Humanities (Hum)
This interdisciplinary group of courses is in the Division of the Humanities.

Objectives—Humanities courses are designed to introduce students to their cultural heritage. This interdisciplinary area explores the literatures and other art forms of the world. Advanced courses in the Division of the Humanities supplement the introductory courses.

Course Descriptions
Hum 1000. Variable Topics. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; offered when feasible) Opportunity to study a traditional literary or narrative form or an idea as it appears in a number of cultures. Topic to be announced.

Hum 1001f. Contesting Visions of the American West. (HDiv; 4 cr; offered when feasible) Examines literary and cultural representations of the American West from a range of perspectives, including those of Asian and European immigrants, explorers, and Native Americans.

Hum 1003. Background to Literature: The King James Bible. (Hum; 4 cr) Some of the ways that language and themes of the King James Bible have shaped the themes, language, and values in English and American literature.

Hum 1050. Variable Topics in Classics in Translation. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; offered when feasible) Study of selected Greek and Roman texts as works of literature, reflections of a civilization, and influences on Western culture. Topic to be announced.

Hum 1051s. Greek Drama. (Hum; 4 cr; offered when feasible)

Hum 1100. Variable Topics in Western World Literature. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; offered when feasible) Emphasis on continental works in a single genre (e.g., the novel) or from a single international literary movement (e.g., romanticism or symbolism). Topic to be announced.

Hum 1101f. The European Novel. (Hum; 4 cr; offered when feasible) Readings in major continental novelists of the 19th and 20th centuries.

Hum 1150. Variable Topics in Non-Western World Literature. (IP; 4 cr; some topics may be offered as honors courses; repeatable when topic changes; offered when feasible) Study of non-Western literature. Courses may emphasize a single genre (e.g., the novel), a literary movement (e.g., postmodernism), or an idea (e.g., nationalism) as it appears in a number of cultures, or may focus on the literary works of a particular non-Western culture (e.g., Middle Eastern, West African, or Native American). Topic to be announced.

Hum 1300. Variable Topics in French Literature and Culture. (See specific topics for general ed categories; 4 cr; repeatable when topic changes) This course is taught on a variety of topics such as modern French literature in translation and women authors in French. It is offered as both a regular course and an honors course. Topic to be announced.

Hum 1301. Literature and Culture of French-Speaking Africa and the Caribbean. (IP; 4 cr) Historical and cultural perspectives of Francophone Africa and the Caribbean via study of literature. Topics studied include tribal Africa, slavery, colonialism, revolution, independence, family structures, and social institutions.

Hum 1302s. French Cinema. (IP; 4 cr) Same as Fren 1302. The history of filmmaking in France from the Lumière brothers to the present; introduction to the major trends in film theory. Taught in English, all films have English subtitles. Offered as both regular and honors course.

Hum 1303. Paris as Text/Image/Sound. (IP; 4 cr; not offered 2004-05) Same as Fren 1303. This course explores how representations of Paris in literature, film, music, and photography have been a key to the construction and the lived experience of the city and how new forms of writing, image-making, and sound production have emerged from the modern metropolis.

Hum 1304. French Women Authors in Translation. (IP; 4 cr; offered when feasible) Same as Fren 1304. French women’s movements during the twentieth century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide some comparisons among European and global feminisms.

Hum 1300H. Honors: Variable Topics in French Literature and Culture. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq participation in Honors Program or #) This course is taught on a variety of topics such as modern French literature in translation and women authors in French. It is offered as both a regular course and an honors course. Topic to be announced.

Hum 1301H. Honors: Literature and Culture of French-Speaking Africa and the Caribbean. (IP; 4 cr; prereq participation in Honors Program or #) Historical and cultural perspectives of Francophone Africa and the Caribbean via study of literature. Topics studied include tribal Africa, slavery, colonialism, revolution, independence, family structures, and social institutions.
Division Structure and Course Descriptions

Hum 1302Hs. Honors: French Cinema. (IP; 4 cr; prereq participation in Honors Program or #)
Same as Fren 1302H. The history of filmmaking in France from the Lumière brothers to the present; introduction to the major trends in film theory. Taught in English, all films have English subtitles. Offered as both regular and honors course.

Hum 1303H. Honors: Paris as Text/Image/Sound. (IP; 4 cr; prereq participation in Honors Program or #; not offered 2004-05)
Same as Fren 1303H. This course explores how representations of Paris in literature, film, music, and photography have been a key to the construction and the lived experience of the city and how new forms of writing, image-making, and sound production have emerged from the modern metropolis.

Hum 1304H. Honors: French Women Authors in Translation. (IP; 4 cr; prereq participation in Honors Program or #; offered when feasible)
Same as Fren 1304H. French women’s movements during the 20th century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide some comparisons among European and global feminisms.

Hum 1311. West African Francophone Cinema. (IP; 4 cr)
Same as Fren 1311. Introduction to the history of cinema in French-speaking West Africa. Students learn to read African films, to recognize and analyze political themes in the films, and to become sensitive to issues facing many African nations in the postcolonial world. Students who wish to apply this course to their French major or minor must enroll in Fren 1311.

Hum 1311H. Honors: West African Francophone Cinema. (IP; 4 cr; prereq participation in Honors Program or #)
Same as Fren 1311H. Introduction to the history of cinema in French-speaking West Africa. Students learn to read African films, to recognize and analyze political themes in the films, and to become sensitive to issues facing many African nations in the postcolonial world. Students who wish to apply this course to their French major or minor must enroll in Fren 1311H.

Hum 1361. Literary Representation of India and the Orient. (IP; 4 cr)
Examination of literary texts depicting India and the Orient. Discussion of concepts of orientalism, exoticism, and the postcolonial discourse relating to these texts.

Hum 1361H. Honors: Literary Representation of India and the Orient. (IP; 4 cr; prereq participation in Honors Program or #)
Examination of literary texts depicting India and the Orient. Discussion of concepts of orientalism, exoticism, and the postcolonial discourse relating to these texts.

Hum 1451s. German Literature in Film. (IP; 4 cr; does not count toward German major or minor; not offered 2004-05)
Development of the German film as expressionistic art form. Film as text, film as history, film as aesthetic expression. Film presentations are in German but with English subtitles in most cases. Readings and lectures are in English.

Hum 1451Hs. Honors: German Literature in Film. (IP; 4 cr; does not count toward German major or minor; prereq participation in Honors Program or #; not offered 2004-05)
Development of the German film as expressionistic art form. Film as text, film as history, film as aesthetic expression. Film presentations are in German but with English subtitles in most cases. Readings and lectures are in English.

Hum 1550s. Variable Topics in Hispanic Literature and Culture. (IP; 4 cr; repeatable with #; does not count toward Spanish major or minor)
Topic to be announced. Topics include women writers of Latin America, film in the Hispanic world, origins of the Spanish character, Latin American novel in translation. Offered as both regular and honors course. Taught in English.

Hum 1550Hs. Honors: Variable Topics in Hispanic Literature and Culture. (IP; 4 cr; repeatable with #; does not count toward Spanish major or minor; prereq participation in Honors Program or #)
Topic to be announced. Topics include women writers of Latin America, film in the Hispanic world, origins of the Spanish character, Latin American novel in translation. Offered as both regular and honors course. Taught in English.

Hum 1993fs, 2993fs, 3993fs, 4993fs. Directed Study. (1-5 cr; repeatable; prereq @)
Hum 4994fs, s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Interdisciplinary Studies (IS)

This is an interdisciplinary group of courses under the authority of the vice chancellor for academic affairs and dean.

Objectives—Through interdisciplinary studies, students may investigate subjects viewed from the perspectives of two or more traditional academic disciplines. Interdisciplinary studies may take the form of well-structured internships or regular classroom courses, or directed study projects that stimulate close student-faculty relationships.

Students interested in interdisciplinary internships or directed study projects should consult with their advisers and appropriate division chairpersons concerning a course prospectus, proposed study activities, and proposed criteria and methods for evaluating their work. In the case of internships, students should discuss their plans with the director of the Career Center, who assists with internship placements. A signed Directed Study Approval form or Internship Approval form (available in the academic division offices) is required in order to register for an interdisciplinary directed study or internship. The approval of the vice chancellor for academic affairs and dean is necessary to register for a directed study or an internship.
Course Descriptions

IS 1001f. First-Year Seminar: Human Diversity. (FYS; 2 cr)
This first-year course aims to facilitate students’ transition from high school to a collegiate environment. Special emphasis is placed on themes that help sensitize students to the spectrum of ideas within the academic setting as well as contemporary society.

IS 1051. Introduction to College Learning Skills. (4 cr; counts toward the 60-cr general ed requirements; prereq participation in Gateway Program; offered summer only; S-N only)
Essential skills for success in higher education. Introduction to computing technology, writing, and math skills. Thought processes and standards of academic psychology.

IS 1061s. Learning to Learn. (SS; 2 cr; prereq #; S-N only)
Basic learning and thinking skills: procedures for acquiring knowledge and conducting academic inquiry; formulating and evaluating ideas, arguments, and abstract principles. Introduction to elements of the learning process. Assessment of individual approaches and development of individual strategies for learning.

IS 1071f,s. Systematic Introduction to the Art and Science of Emergency Medical Care. (4 cr; prereq registration with the Stevens County Ambulance Service; S-N only)
Introduction to emergency medical care. Develops skills and knowledge to respond appropriately to a medical emergency. (The Stevens County Ambulance Service sets and requires an independent fee.)

IS 1091f,s. Ethical and Social Implications of Technology. (E/CR; 2 cr)
Description of appropriate technological advances. Historical development related to technology and its development cycle. Discussion of the ethical and social implications of technology.

IS 1091Hf,s. Honors: Ethical and Social Implications of Technology. (E/CR; 2 cr; prereq participation in Honors Program or #)
Description of appropriate technological advances. Historical development related to technology and its development cycle. Discussion of the ethical and social implications of technology.

IS 2001Hf. Honors: Traditions in Human Thought. (Hum; 2 cr; prereq participation in Honors Program or #)
A study of a selection of significant works from history, literature, philosophy, science, and religion across continents from the earliest writings to the present day. Critical reading, writing, and discussion in an interdisciplinary context are emphasized.

IS 3100. Interdisciplinary Studies in Social Science. (1-4 cr; offered when feasible)
Studies of topics, applying expertise from various social science disciplines, e.g., women in the social sciences.

IS 3111Hs. Honors: The End of the World as We’ve Known It: The Apocalypse Then and Now. (SS; 2 cr; prereq participation in Honors Program or #; offered when feasible)
Exploration of the occasions and representations of apocalyptic views, focusing on the historical, political, and psychological implications. Antecedents and effects of end-of-the-world prophecies are explored through the use of popular culture (e.g., music, science fiction, other media), writings from across cultural and religious frames of reference, and various historical, political, and psychological resources.

IS 3201H. Honors: Ideas of Order in the Medieval World. (Hist; 2 cr; prereq participation in Honors Program or #; offered when feasible)
An examination of ways of constructing and perceiving order in the Middle Ages, primarily from scientific, literary, and historical perspectives. Topics include ideas of universal and natural order, moral/spiritual order, religious order, social order, and artistic order.

IS 3203H. Honors: A Cross Section of the Enlightenment. (Hist; 2 cr; prereq participation in Honors Program or #; offered when feasible)
A cross-section of the cultural and intellectual history of the 18th century. Figures to be studied may include Descartes, Newton, Locke, Hume, Hobbes, Rousseau, Voltaire, Lavoisier, d’Holbach, and Blake.

IS 3211H. Honors: Republic or Empire? (Hist; 2 cr; prereq participation in Honors Program or #; offered when feasible)
The 1890s are often seen as a cultural watershed for the United States. Depression, political movements, and a “splendid little war” against Spain and the Philippines represent only the surface of a decade which altered aspects of race, class, gender and literary sensibility.

IS 3705f. Peer Tutoring in College I. (SS; 3 cr; prereq #)
Principles and practice of peer tutoring, one-to-one and in small groups. Students learn tutoring methods during fall semester. Topics in pedagogical theory regarding peer tutoring processes, and practice in peer tutoring.

IS 3710s. Peer Tutoring in College II. (1 cr; repeatable to 3 cr; prereq 3705)
Principles and practice of peer tutoring, one-to-one and in small groups. Students tutor in courses that they have already completed successfully.

IS 3800f,s. Practicum in Social Sciences. (1-2 cr; repeatable to 4 cr; prereq #; S-N only)
Supervised experience of selected learning activities such as discussion group leader, lab assistant, or research assistant.

IS 3893. Prior Learning Directed Study. (1-4 cr; repeatable; prereq #)
Individualized learning project combining prior learning with faculty-directed new learning, awarding academic credit for both. (When content is discipline-related, discipline designation will appear on transcript and credit may count toward appropriate general education requirement category.)

IS 3896. Prior Learning Internship. (1-16 cr; repeatable; prereq #; S-N only)
An educational experience in a work environment providing field application for the student’s theoretical classroom learning experiences. The prior learning, such as in social service or business settings, would have occurred prior to the student’s matriculation. The prior learning is documented and combined with faculty-directed new learning, with credit awarded for both.

IS 3996f,s. Interdisciplinary Internship. (1-16 cr; repeatable; prereq #; S-N only)
One-semester educational experience in a work environment providing field applications for the student’s theoretical classroom learning experiences. Approved Learning Contract required for registration.
Division Structure and Course Descriptions

IS 4101s. Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services. (E/CR; 2 cr; prereq jr, 10 cr 3xxx or 4xxx human services courses or #) Concepts of professional ethics in human services professions; ethically relevant legal mandates and constraints on professional practice; practical problems in the application of ethical principles.

IS 1993f,s. 2993f,s. 3993f,s. 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @) Interdisciplinary studies. Directed Study Approval Form with signature required for registration.

IS 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) across two or more disciplines. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Continuing Education Courses

IS 1041. CE: Health Sciences Terminology. (2 cr; additional tuition required; course not included in UMM tuition band) A self-study course designed to provide students with a working knowledge of the terminology utilized in the health sciences. There are no formal class sessions. Students take four tests during the term.


IS 1302s. CE: Dakota Language II. (FL; 4 cr) A continuation of 1301 with greater emphasis on conversation and culture.

IS 2011f,s. CE: English Language Teaching Assistant Program. (IP; 12 cr; S-N only) Students assist teachers of English in one of several countries where English is not the primary language. Assignments are for eleven weeks. Housing and board are provided or subsidized by the host school.

IS 3110. CE: Rural Community Field Project: Center for Small Towns. (SS [if taken for 2 or more cr]; 1-6 cr; prereq #; additional tuition required; course not included in UMM tuition band) An educational experience in a rural learning environment that focuses on rural issues of community life, demography, culture, environment, and policy. A collaborative effort between Center for Small Towns and a public rural entity provides a structured environment in which civic engagement objectives are achieved and grounded in a practical setting. Students gain a valuable understanding about the historical social structures of rural society and witness these structures firsthand.

Objective—to provide a basic introduction to the cultures and societies of Latin America, to provide the means essential to gain an understanding of Latin America and its diverse peoples, and to place Latin America in a comparative perspective.

Major Requirements

Proficiency in Spanish equivalent to that required for the completion of Span 2002.

4 credits in Latin American history (Hist 1601—Latin American History: A Basic Introduction or its equivalent).

1 credit in LAAS 3201—Biblical Tools and Journals in Latin American Area Studies.

1-4 credits in LAAS 4101—Senior Tutorial in Latin American Area Studies.

1 credit per semester, after enrolling in the major and when in residence, in LAAS 3100—Contemporary Latin America; no more than 4 credits can be applied to the LAAS major, and up to 4 credits can be applied to the 20-credit elective requirement.

20 additional credits selected from the courses listed below; these courses must come from at least three different academic disciplines. Students are encouraged to use elective credits to acquaint themselves with as many academic fields of Latin American studies as possible. Any directed study course for which an instructor is available is acceptable provided the subject matter is appropriate. These courses may be applied to the 20-credit elective requirement. Students may have up to a two-course overlap with any other major. Additional overlap is possible, but must be approved by the LAAS coordinator.

Course Descriptions

Anth 2301s. Social Change and Development in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101 or #) Same as Soc 2301. Study of types of social change taking place in Latin American countries, including economic, political, social, religious, and cultural change. Problems faced, consequences of development, and other types of changes are placed in their social and cultural contexts.

Anth 2302f. Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101 or #) Same as Soc 2302. Study of social statuses of women in Latin American countries and the cultural norms influencing these statuses. Topics include class differences and the varied interests of women of different classes and ethnicities, women’s movements, economics and political conditions, religion and women, etc.

Anth 2302Hf. Honors: Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101, participation in Honors Program or #) Same as Soc 2302H. In addition to regular coursework, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

Anth 2302Hf. Honors: Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101, participation in Honors Program or #) Same as Soc 2302H. In addition to regular coursework, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

Arth 3251s. Pre-Columbian Arts of the Americas. (FA; 4 cr; prereq any 1xxx Arth class or jr status or #; not offered 2003-04) The pre-colonial arts of the native peoples of Mexico, South America, and the southwestern United States from 1000 B.C.E. to the 16th century C.E.
Latin American Area Studies

Econ 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @) Literature of Latin American economics.


Engl 3342. Chicana/os and Latinas/os in Film and Literature. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212 or #; offered when feasible) Focus on how Chicanas/os and Latinas/os have been represented in Hollywood films and how Chicana/o and Latina/o writers, actors, and filmmakers have portrayed their people, culture, and various issues in films and writings.

Hist 1601s. Latin American History: A Basic Introduction. (IP; 4 cr) Methods, themes, and problems in the study of Latin American history.

Hist 3600f. Variable Topics in Latin American History. (IP; 4 cr; repeatable when topic changes) Political, economic, social, cultural, and national history of Latin America. Possible topics include Cuban or Mexican revolutions, dependence and underdevelopment, great books on Latin America, and Brazil.


Hist 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @) Opportunity to study analytically a limited topic in Latin American history. Topic determined by the student and instructor.

Hum 1550s. Variable Topics in Hispanic Literature and Culture. (IP; 4 cr; repeatable with #; does not count toward Spanish major or minor) Topic to be announced. Topics include women writers of Latin America, film in the Hispanic world, origins of the Spanish character, Latin American novel in translation. Offered as both regular and honors course. Taught in English.

Hum 1550Hs. Honors: Variable Topics in Hispanic Literature and Culture. (IP; 4 cr; repeatable with #; does not count toward Spanish major or minor; prereq participation in Honors Program or #) Topic to be announced. Topics include women writers of Latin America, film in the Hispanic world, origins of the Spanish character, Latin American novel in translation. Offered as both regular and honors course. Taught in English.

LAAS 3100f,s. Contemporary Latin America. (1 cr; prereq LAAS major; to be repeated each sem a student is in residence; only 4 cr may apply to LAAS major) Opportunity for LAAS majors to read about and discuss in historical and cultural contexts the more important contemporary developments in Latin America.

LAAS 3201. Bibliographical Tools and Journals in Latin American Area Studies. (1 cr; prereq LAAS major; offered when feasible) For the student new to the major. Introduction to the standard bibliographical tools and journals in Latin American area studies.

LAAS 4101. Senior Tutorial in Latin American Area Studies. (1-4 cr; prereq 3201; prereq sr LAAS major; offered when feasible) Individual reading in subjects needing further development before completing the LAAS major. Subjects determined by LAAS faculty in consultation with the senior LAAS major.

LAAS 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @) Individualized research project related to Latin America. Topic determined by the student and instructor.

LAAS 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Mgmt 4500. Variable Topics in Global Business. (IP; 2-4 cr; repeatable when topic changes; see specific topics for prereqs) Epochal changes surrounding structure, institutional dynamics, and organizational adaptation/challenges of global business. Possible topics: globalization process, skill formation and technological change, labor relations, oil and energy, child labor, environmental standards, financial crises, sweatshops, competitive struggle/strategy, business ethics.

Mgmt 4503. Stabilization and Development in Latin America. (IP; 2 cr; prereq Econ 1111, Econ 1112 or #) Macroeconomic instability and the attempts to overcome it throughout the last century have been central to the economic history of Latin America (and arguably to its political and social history as well). Review of some of that historical experience together with the ideas about development which it generated. Latin America’s peculiar current insertion into the modern global economy, as well as some of its idiosyncratic economic challenges and intellectual perspectives, studied in this historical light.

Pol 3504s. Latin American Politics. (IP; 4 cr; prereq 1301 or #) A comparative examination of central issues in and components of Latin American political life, including economic development, regimes and alliances, guerrilla wars, the armed forces, human rights, and democratic consolidation. Countries may include Argentina, Brazil, Chile, Colombia, El Salvador, and Cuba.

Pol 3505f. Military and Political Development. (IP; 4 cr; prereq 1301 or #) Explores military intervention in government and the influence of the military on social and economic policies in a variety of regions.

Pol 4507s. Political Violence. (IP; 4 cr; prereq 1301 or #; not offered 2004-05) Examination of causes, processes, and outcomes of violent social conflict, including repression, mass political protests, riot revolt, terrorism, and revolution.

Pol 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq pol sci major or @) Latin American political science.
Soc 2301f. Social Change and Development in Latin America. (IP; 4 cr; prereq 1101 or Anth 1111 or #)

Soc 2302s. Women in Latin America. (IP; 4 cr; prereq 1101 or Anth 1111 or #)

Soc 2302Hs. Honors: Women in Latin America. (IP; 4 cr; prereq 1101 or Anth 1111, participation in Honors Program or #)

Same as Anth 2302H. In addition to regular course work, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

Soc 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

Literature of Latin American sociology.

Span 1001f. Beginning Spanish I. (FL; 4 cr)
Study of basic skills of Spanish (reading, speaking, writing, listening) and cultural contexts of Latin America and Spain. Students should demonstrate the ability to read and comprehend materials such as ads and instructions; engage in simple conversations in Spanish, to speak about themselves and express their basic needs; construct sentences and questions in Spanish in order to write accurately at the short paragraph level; comprehend short conversations.

Span 1002s. Beginning Spanish II. (FL; 4 cr; prereq 1001 or placement or #)
Second course in the sequence beginning with 1001.

Span 1050. Variable Topics in Associated Languages. (IP; 1-4 cr; offered when feasible)
Introduction to a number of languages and culture of the Iberian Peninsula and Latin America, (e.g., Portuguese, Nahuatl).

Span 2001f. Intermediate Spanish I. (IP; 4 cr; prereq 1002 or placement or #)
Review and building of skills with a focus on basic Spanish language structures and tenses. Students should demonstrate the ability to read critically and understand the context of literary and cultural items; respond to simple questions, avoid basic pronunciation errors, engage in short conversations, discuss assigned themes at some length; write accurately at the paragraph level, avoiding common grammatical errors; comprehend conversations.

Span 2002s. Intermediate Spanish II. (IP; 4 cr; prereq 2001 or placement or #)
Review and building of skills in more complex language structures, tenses, and moods. Students should demonstrate the ability to read with some basic literary analysis and analyze cultural differences; read out loud with understanding, speak in emotive and persuasive language contexts, hold conversations, speak extemporaneously on assigned topics; write analytically and accurately at the short paper level; comprehend short dialogues and paragraphs.

Span 3001f. Advanced Spanish I. (IP; 4 cr; prereq 2002 or #)
Study of complex language structures, expansion and reinforcement of grammar constructions, and analysis of literary and/or cultural readings. Students should demonstrate the ability to carefully read, comprehend, and analyze literary works and/or cultural readings; discuss motives and themes in such works, read out loud with proficiency and meaning, hold sustained conversations; use correct grammar to write and present compositions analyzing the works; comprehend main points in Scola televised presentations and materials.

Span 3002s. Advanced Spanish II. (IP; 4 cr; prereq 3001)
Second course in the sequence beginning with 3001.

Span 3101s. Introduction to Spanish Literature. (Hum; 4 cr, prereq 3001, prereq or coreq 3002)
Study of a variety of literary genres representing the literature of Spain and Latin America; rudiments of literary analysis and interpretation. Students should demonstrate the ability to read and comprehend the literary works studied, analyze works critically while developing a sensitivity toward certain cultural aspects and literary nuances expressed therein; participate in and comprehend sustained class discussion with respect to certain topics or themes; write with accuracy in Spanish and show some degree of analytical proficiency at the short paper level.

Span 3201f. Masterpieces of Spanish Peninsular Literature I. (Hum; 4 cr; prereq 3001, 3002, 3101)
Masterpieces from the Generation of 1898 and the contemporary period. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must demonstrate the ability to discuss in class the ideas of the texts and the context, and write papers with grammatical precision and rigorous research.

Span 3202s. Masterpieces of Spanish Peninsular Literature II. (Hum; 4 cr; prereq 3201)
Masterpieces from medieval, Renaissance, Golden Age, 18th century, and 19th century. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

Span 3301f. Masterpieces of Latin American Literature I. (Hum; 4 cr; prereq 3002, 3101)
Masterpieces from Latin America in the 20th century. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

Span 3302s. Masterpieces of Latin American Literature II. (Hum; 4 cr; prereq 3002, 3101)
Masterpieces from Latin America from 1492 to 1900. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

Span 3400s. Variable Topics in Latin American Literature. (Hum; 4 cr; repeatable when topic changes; prereq 3002, 3101)
Topic to be announced. Students should demonstrate the ability to analyze literary texts, using the text as well as aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.
Span 1993s, 2993s, 3993s, 4993s. Directed Study. (1-5 cr; repeatable; prereq @)

Spch 3411f. Intercultural Communication Theory and Research. (HDiv; 4 cr; prereq 2101 or #)
Study of intercultural communication from an interpersonal and group perspective.

Liberal Arts for the Human Services (LAHS)

This interdisciplinary major is in the Division of the Social Sciences.

Objectives—This program’s three main purposes are to provide a firm liberal arts basis for understanding individual human behavior in its social context; provide the liberal arts foundation for professional work in baccalaureate-level human services occupations such as counseling, casework, personnel work, and administration of human services in federal and state agencies, private businesses, or professional organizations; and prepare students for graduate work in the human services professions.

Major Requirements

Anth 1111—Introductory Cultural Anthropology
or Soc 1101—Introductory Sociology
Psy 1051—Introduction to Psychology
or Psy 1101-1102—Foundations of Psychology I-II
(Not offered after fall 2003)
Stat 1601—Introduction to Statistics
or Stat 2601—Statistical Methods

The minimum additional requirements for a major in liberal arts for the human services are:

a) 40 credits to be selected from the courses listed below, with a minimum of 16 credits each in anthropology/sociology and upper division psychology

b) at least 4 credits of Psy 4896—Field Experiences in Psychology or IS 3996—Interdisciplinary Internship

c) IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services

Students develop a coherent program of study in consultation with their major advisers generally no later than the spring semester of their sophomore year. Advisers normally are faculty with a background or specialties related to the human services area.

Students should discuss the arrangement of their field experience with their LAHS advisers no later than the fall semester of their junior year. Information concerning specific field placements can be obtained from the director of the Career Center or an LAHS faculty adviser.

Because LAHS students pursue varied careers, they are advised to include in their programs courses appropriate to their career plans. For instance, students intending to seek careers involving public administration or policy formulation should take such courses as:

Econ 1111—Principles of Microeconomics
Econ 1112—Principles of Macroeconomics
Mgmt/Psy 3512—Group Dynamics
Mgmt/Psy 3513—Negotiation
Psy 3521—Health Psychology
Psy 3701—Organizational Behavior
Soc 2101—Prejudice, Discrimination, and Systems of Oppression
Soc 3121—Sociology of Gender
Soc 3200—Topics in Social Stratification
Spch 3411—Intercultural Communication Theory and Research
Spch 3421—Organizational Communication Theory and Research
possibly Mgmt 2201—Principles of Management

Students intending to seek careers in counseling or in other direct helping professions working with adults should take such courses as:

Psy 3051—The Psychology of Women
Psy 3101—Learning Theory and Behavior Modification
Psy 3302—Personality
Psy 3313—Psychopathology
Psy 3403—Developmental Psychology III: Adulthood, Aging, and Death
Psy 3501—Social Psychology
Psy 3521—Health Psychology
Psy 4101—Helping Relationships
Soc 3121—Sociology of Gender
Soc 3141—Sociology of Deviance
Spch 1061—Interpersonal Communication
Spch 3411—Intercultural Communication Theory and Research
Spch 3421—Organizational Communication Theory and Research

If the career involves work with children, students should take:

Psy 3401—Developmental Psychology I: Child Psychology
Psy 3402—Developmental Psychology II: Adolescence

If with the chemically dependent:

Psy 1081—Drugs and Human Behavior

a directed study or empirical research course on chemical dependency

In all instances, students should consult with their advisers when designing their programs.

Students should complete the professional ethics course (IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services) during the year before their internship (IS 3996—Interdisciplinary Internship) or field experience (Psy 4896—Field Experiences in
Psychology). Students who plan to enroll in Psy 4101—Helping Relationships should complete the course before their internship or field experience.

Courses with grades of D may not be used to meet the major requirements.

The 40 credits required for the LAHS major are to be selected from the courses listed below.

**Course Descriptions**

**Anth 2301s. Social Change and Development in Latin America.** (IP; 4 cr; prereq 1111 or Soc 1101 or #)

Same as Soc 2301. Study of types of social change taking place in Latin American countries, including economic, political, social, religious, and culture change. Problems faced, consequences of development, and other types of changes are placed in their social and cultural contexts.

**Anth 2302f. Women in Latin America.** (IP; 4 cr; prereq 1111 or Soc 1101 or #)

Same as Soc 2302. Study of social statuses of women in Latin American countries and the cultural norms influencing these statuses. Topics include class differences and the varied interests of women of different classes and ethnicities, women’s movements, economics and political conditions, religion and women, etc.

**Anth 2302Hf. Honors: Women in Latin America.** (IP; 4 cr; prereq 1111 or Soc 1101, participation in Honors Program or #)

Same as Soc 2302H. In addition to regular coursework, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

**Anth 2404f. Introduction to the Peoples of North America.** (HDiv; 4 cr; prereq 1111 or Soc 1101 or #)

An introduction to the societies and cultures of the peoples of North America (Canada, United States, Mexico) focusing upon the “traditional” (or pre-European contact) conditions.

**Anth 2451s. Contemporary Native Americans.** (HDiv; 4 cr; not offered 2003-04)

Same as Soc 2451. The cultures, problems, and resurgence of Native Americans in the 20th and 21st centuries. Government policies; education, religion, self-determination, family, gaming, etc.

**Anth 2452s. Native American Women.** (HDiv; 4 cr; prereq 1111 or Soc 1101 or #)

Same as Soc 2452. The role of Indian and mixed-blood women in a variety of North American Indian cultures, both traditional and contemporary, using ethnography, autobiography, life history, biography, and fiction. The interaction of Indian women and their cultures with the colonizing cultures of Western Europe and the United States.

**Anth 2501s. Medical Anthropology: An Overview.** (SS; 4 cr; prereq 1111 or Soc 1101 or #)

Utilizes an ecological perspective to explore cultural understandings of health and illness in a variety of societies in North America and abroad. Examines the effects of cultural and physical adaptation, nutrition, culture contact, and modernization on the health and well being of people.

**Anth 3101f. The Anthropology of Religion.** (SS; 4 cr; prereq 1111 or Soc 1101 or #; addtl cr in Anth or Soc recommended; not offered 2003-04)

Comparative study of religion, magic, witchcraft, etc., in various parts of the world. Theories and concepts developed by anthropologists in dealing with religious phenomena in a cross-cultural perspective.

**Anth 3201f. Inequality Within and Among Nations.** (Envt; 4 cr; prereq 1111 or Soc 1101 or #)

Examines the effect of the interaction of human groups with their extant technologies and their physical, social, and cultural environments, focusing particularly on how this interaction affects social inequality. The global hierarchy of nations.

**Anth 3202f. Culture and Biology.** (Envt; 4 cr; prereq 1111 or Soc 1101 or #; not offered 2003-04)

Examines the interrelationships between biology and culture, using various cultures in the ethnographic record to assess the applicability of a range of biologically inspired hypotheses for aspects of human behavior and intelligence. The nature-nurture debate.

**Anth 3301s. India and South Asia.** (IP; 4 cr; prereq 1111 or Soc 1101 or #)

Same as Soc 3301. Examination of the cultures and societies of several South Indian countries with a primary focus on India. Topics include a brief history, economic and social issues and conditions, marriage and kinship practices, religions, regional differences, regional and international conflicts, and cultural and social change.

**Anth 3501s. Critical Medical Anthropology.** (HDiv; 4 cr; prereq 2501 or #; not offered 2003-04)

An analysis of the role of biomedicine as an increasingly dominant medical system in the world. The factors of race/ethnicity, gender, and social class in the ability to access, negotiate, and influence biomedical practice, beliefs, and research.

**Econ 1111f.s. Principles of Microeconomics.** (SS; 4 cr; prereq high school algebra or #)

Introduction to the study of scarce resource allocation in a market economy. Supply and demand, consumer theory, theory of the firm, market structure, pricing of factors of production, income distribution and the role of government.

**Econ 1112f.s. Principles of Macroeconomics.** (SS; 4 cr; prereq high school algebra or #)

Introduction to basic economic problems, concepts, and theoretical models. U.S. economic institutions and the economic organization of society. The role of markets in the production and distribution of societal resources. Measurement of economic performance; national income, inflation and unemployment; competing macroeconomic theories and stabilization policies.

**Econ 3201f. Microeconomic Theory.** (SS; 4 cr; prereq 1111, Math 1101 or #)

Analytical approach to decision making by individual economic units in the output and input markets, under perfect and imperfect market conditions. Externalities and role of government.

**Econ 3202s. Macroeconomic Theory.** (SS; 4 cr; prereq 1112, Math 1101 or #)

The theory of national income determination; inflation, unemployment, and economic growth in alternative models of the national economy.

**Hist 3700. Variable Topics in the History of Women.** (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or 1102 or 1301, WOst 1101)

Possible topics include a historical study of women and religion, a historical study of thought about American women, a cross-cultural study of the history of women.

**Hist 3701s. Women and Religion: A History.** (SS; 4 cr; prereq 1101 or 1102 or 1301, WOst 1101)

A historical discussion of women in non-Western and Western religions.
Hist 3702f. The History of Women in the West. (HDiv; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible) Focuses on the intellectual as well as political, social, and economic history of pre-European, western European, and American women.

Hist 3703s. 20th-Century European Women. (Hist; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101)

Hist 3704. Women in the Middle Ages. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; not offered 2004-05)

Hist 3705s. History of Ideas About Women. (E/CR; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101) Changing ideas about the ethical treatment of women and women’s civic responsibilities. Includes classical ideas to modern.

Hist 3706. Women in Early Modern Europe. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; not offered 2004-05)

IS 4101s. Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services. (E/CR; 2 cr; prereq jr, 10 cr 3xxx or 4xxx human services courses or #) Concepts of professional ethics in human services professions; ethically relevant legal mandates and constraints on professional practice; practical problems in the application of ethical principles.

Mgmt 3000. Variable Topics in Management. (See specific topics for general ed categories; 2 cr; repeatable when topic changes; prereq varies by topic; offered when feasible) Topic to be announced.

Mgmt 3151s. Human Resources Management I. (E/CR; 2 cr; prereq 2101 or #) An introduction to the functional areas of human resource management through the use of case studies. Topics include legal issues, planning, recruitment, training, evaluation, and compensation.

Mgmt 3152. Human Resources Management II. (HDiv; 2 cr; prereq 2101 or #; offered when feasible) Topics in human resource management: evaluating employee performance, compensation and benefits, safety, labor relations, international human resource management.

Mgmt 3512s. Group Dynamics. (SS; 2 cr; prereq Psy 3501 or Mgmt 3221 or Psy/Mgmt 3701) Same as Psy 3512. Uses the behavioral sciences to take an applied and theoretical perspective on group dynamics. Some topics include teams, teams versus groups, group decision-making, group performance, group structure, and group socialization.

Mgmt 3513s. Negotiation. (SS; 2 cr; prereq Psy 3501 or Mgmt 3221 or Psy/Mgmt 3701) Same as Psy 3513. Examines the theoretical and applied aspects of negotiation. Some topics include negotiation theory, strategy, skills and tactics, communication processes, and ethics. This course uses negotiation simulations.

Mgmt 3701. Organizational Behavior. (SS; 4 cr; prereq jr or sr) Same as Psy 3701. Uses the theories and research of the behavioral sciences to understand how organizations function at the individual, group, and organizational levels. Topics include stress in the workplace, group dynamics, power, leadership and attribution theory.

Pol 3263f. Political Psychology. (SS; 4 cr; prereq 1201; Psy 1051 or # recommended; not offered 2003-04) Examines the utility of concepts from personality and social psychology for conducting political analysis and understanding political behavior. Explores the role of the individual, group processes, and the political context in political decision making by both leaders and nonleaders.

Pol 4201f. Legislative Process. (SS; 4 cr; prereq 1201 or #, Stat 1601 or 2601 recommended) The internal organization of U.S. Congress, with emphasis on how rules and organizational changes affect the policy process. Topics include the evolution of the modern U.S. Congress, the committee system, the role of party leadership, and competing theories of congressional organization. In addition, comparisons/contrasts are drawn from other legislatures in democracies around the world.

Pol 4221f. Judicial Politics. (SS; 4 cr; prereq 1201 or #, Stat 1601 or 2601 recommended; not offered 2004-05) Role of judges, police, attorneys, and interest groups within the political system, with analysis focusing on each as political actors. Areas of discretion in the legal system. Extra-legal predictors of judicial decision making and certiorari voting.

Pol 4264s. American Political Culture. (Hist; 4 cr; prereq 1201 or #; not offered 2003-04) A survey of the ideas shaping the U.S. political system and Americans’ political behavior. Examines the ways that U.S. political culture has shaped institutional development, policy outcomes, and the everyday political experiences within the political system.

Psy 1061s. Introduction to the Development of the Child and Adolescent. (SS; 4 cr; prereq 1051 or #) Theory, data, and research approaches in development from birth through adolescence. Prenatal and physical development as well as perceptual, cognitive, language, personality, and social development. Multicultural/global perspective. Designed for students aiming for teacher certification, who receive priority in registration. Does not count for elective credit for the 16-credit psychology component of the LAHS major or for the psychology major or minor. Does count toward the 6-credit “other” category for the LAHS major. A more in-depth alternative to this course is Psy 3401 and Psy 3402. Students double majoring in education and psychology should consider the Psy 3401 and 3402 alternative to this course.

Psy 1071f. Human Sexuality. (SS; 4 cr) Survey of aspects of human sexuality, including intimacy and communication; male and female anatomy, physiology, and response; development of identity, sex role, and gender orientation; varieties of sexual expression; pregnancy and childbirth; contraception and disease prevention; sexual coercion and abuse; sexual dysfunctions and their treatment.

Psy 1081s. Drugs and Human Behavior. (SS; 2 cr) Survey of psychoactive drugs, their effects on mind and behavior, and prevention and treatment of drug abuse.

Psy 3051s. The Psychology of Women. (HDiv; 4 cr; prereq 1051) Feminist approach to the psychological study of women’s personality, behavior, development, language issues, motivation, work and family lives, sexuality, health and psychobiology, adjustment and therapy, and victimization experiences. Focuses on women of color, feminist research methodology, and feminist analysis of psychological theories of women.
Psy 3101f. Learning Theory and Behavior Modification. (SS; 4 cr; prereq 2001 or #)
Major theories of learning and their importance for understanding human and nonhuman behavior. Classical and operant conditioning, generalization, discrimination, stimulus control, animal cognition. Behavior modification theories and techniques and their application to clinical populations. Lab projects demonstrate learning and behavior modification theories, concepts, and techniques and illustrate research methods and theory testing. Includes lab.

Psy 3112s. Cognition. (SS; 4 cr; prereq 2001 or #)
Empirical study of memory, language behaviors, representation of knowledge, judgment, decision making, problem solving, and creative thinking. Includes lab.

Psy 3211f. Biological Psychology. (Sci-L; 5 cr; prereq [1051 and 2001] or Biol 1101)
Brain organization and function; an emphasis on an understanding of the neural processes that underline human and nonhuman behavior. Incorporates information from psychology, neuroscience, endocrinology, physiology, chemistry, neurology, and zoology to investigate the physiological basis of behavior. Topics include sensory processes, drugs and addiction, biological rhythms, sexual differentiation, reproduction, methods in neuroscience, neuropsychological disorders, and clinical assessment. Lab projects focus on neuroanatomical organization and function of the brain. (4 hrs lect, 1 hr lab)

Psy 3221s. Behavioral Biology of Women. (Sci; 2 cr; prereq 3211 or Biol 2111 or #; offered when feasible)
Exploration of proximate and ultimate influences on female behavior in human and nonhuman species. Sexual differentiation, gender differences in cognition, biological basis of sexual orientation, female sexual selection, and dominance.

Psy 3302f. Personality. (SS; 4 cr; prereq 1051, Stat 1601 or 2601 or #)
Nature of personality constructs and theories. Conscious vs. nonconscious processes; emotion and motivation; nature and measurement of personal traits; their dimensional structure, stability, development, and heritability.

Psy 3313s. Psychopathology. (SS; 4 cr; prereq 3301 or 3311 or 3302, Stat 1601 or 2601)
Psychological disorders and their treatment, including anxiety, personality, affective, schizophrenic, and other recognized disorders of children and adults.

Psy 3401f. Developmental Psychology I: Child Psychology. (SS; 4 cr; prereq 1051 or #)
Theory, data, and research in development from conception to adolescence. Prenatal and physical development as well as perceptual, cognitive, personality, and social development. Language acquisition and Piaget’s theory of cognitive development.

Psy 3402s. Developmental Psychology II: Adolescence. (SS; 2 cr; prereq 1051, [3401 or 1061] or #)
Theory, data, and research in adolescent development with emphasis on physical, cognitive, and social development.

Psy 3403f. Developmental Psychology III: Adulthood, Aging, and Death. (SS; 4 cr; prereq 1051 or #)
An overview of current concepts, theories, and methods in the study of adult development and aging. Emphasis on individual physical, cognitive, and social-psychological development, with historical, sociological, and anthropological perspectives where appropriate. Combines chronological and topical approaches, covering the generally acknowledged phases of adult life (young adulthood, middle age, and later life) as well as specific developmental topics, including biological development, cognitive/intellectual development and decline, personality development, relationships, marriage, family, careers, and end-of-life issues.

Psy 3501f. Social Psychology. (SS; 4 cr; prereq 1051 or Soc 1101 or #)
Theories and research in the study of interpersonal behavior. Topics include aggression, prejudice, altruism, persuasion, group dynamics, and social influence.

Psy 3512s. Group Dynamics. (SS; 2 cr; prereq 3501 or Mgmt 3221 or Psy/Mgmt 3701)
Same as Mgmt 3512. Uses the behavioral sciences to take an applied and theoretical perspective on group dynamics. Topics include teams, teams versus groups, group decision making, group performance, group structure, and group socialization.

Psy 3513s. Negotiation. (SS; 2 cr; prereq 3501 or Mgmt 3221 or Psy/Mgmt 3701)
Same as Mgmt 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, and ethics. This course uses negotiation simulations.

Psy 3521s. Health Psychology. (SS; 4 cr; prereq 1051)
Health implications of interactions among behavioral, environmental, and physiological states. Physiological bases of behavior and health; stress and coping; behavioral antecedents of disease; psychoneuroimmunology; disease prevention and health promotion.

Psy 3701. Organizational Behavior. (SS; 4 cr; prereq jr or sr)
Same as Mgmt 3701. Uses the theories and research of the behavioral sciences to understand how organizations function at the individual, group, and organizational levels. Topics include stress in the workplace, group dynamics, power, leadership and attribution theory.

Psy 4101f. Helping Relationships. (SS; 4 cr; prereq 3302)
Approaches to counseling and psychotherapy. Theories of helping relationships. Acquisition of helping skills, including attending behavior, reflection of feeling, paraphrasing, confrontation, and summarization. Major humanistic, cognitive, and behavioral approaches. Didactic instruction, observation of counseling and psychotherapeutic techniques, and practical experiences.

Psy 4610. Empirical Investigations in Cognitive Psychology I. (SS; 2 cr; repeatable; prereq 2001, [3111 or 3112], #; no cr for 4610 until 4710 completed)
Empirical investigations by students in any area of cognitive psychology, including sensation and perception, as well as related areas. Includes lab. First half of a series; students must enroll in Psy 4710 to complete the project.

Psy 4620. Empirical Investigations in Biological Psychology. (SS; 2 cr; repeatable; prereq 2001, 3211, #; no cr for 4620 until 4720 completed)
Empirical investigations by students in any area covered by biological psychology, as well as related areas. Includes lab. First half of a series; students must enroll in Psy 4720 to complete the project.

Psy 4630. Empirical Investigations in Personality, Psychopathology, and Psychological Intervention I. (SS; 2 cr; repeatable; prereq 2001, 3302, #; no cr for 4630 until 4730 completed)
Empirical investigations in human emotion, motivation, individual differences, psychopathology, and psychological intervention. Includes lab. First half of a series; students must enroll in Psy 4730 to complete the project.
Psy 4640. Empirical Investigations in Developmental Psychology I. (SS; 2 cr; repeatable; prereq 2001,[3401 or 3402 or 3403]; #; no cr for 4640 until 4740 completed) Individual reading and empirical research on any topic. Objective is greater depth than is possible in Psy 3401, 3402, 3403 and demonstration of research competency. Includes lab. First half of a series; students must enroll in Psy 4740 to complete the project.

Psy 4650. Empirical Investigations in Social and Organizational Psychology I. (SS; 2 cr; repeatable; prereq 2001,[3501 or 3701], #; no cr for 4650 until 4750 completed) Seminar instruction on topics of student and staff interests. Students complete an empirical project and paper. Includes lab. First half of a series; students must enroll in Psy 4750 to complete the project.

Psy 4660f,s. Empirical Investigations in Health Psychology I. (SS; 2 cr; repeatable; prereq 2001,[3501 or 3521], #; no cr for 4660 until 4760 completed) Seminar instruction on topics of student and staff interests. Students complete an empirical project and paper. Includes lab. First half of a series; students must enroll in Psy 4760 to complete the project.

Psy 4710f,s. Empirical Investigations in Cognitive Psychology II. (SS; 2 cr; repeatable; prereq 4610, #) Continuation of Psy 4610. Psy 4710 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4610, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4610 and 4710 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4720f,s. Empirical Investigations in Biological Psychology II. (Sci; 2 cr; repeatable; prereq 3211,4620, #) Continuation of Psy 4620. Psy 4720 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4620, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4620 and 4720 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4730f,s. Empirical Investigations in Personality, Psychopathology, and Psychological Intervention II. (SS; 2 cr; repeatable; prereq 4630, #) Continuation of Psy 4630. Psy 4730 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4630, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4630 and 4730 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4740f,s. Empirical Investigations in Developmental Psychology II. (SS; 2 cr; repeatable; prereq 4640, #) Continuation of Psy 4640. Psy 4740 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4640, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4640 and 4740 may be taken concurrently. It is recommended that students begin the series in the fall term unless they plan to work with children or adolescents, in which case the human subject’s permission process is best begun in spring term of the academic year before students enroll in Psy 4640.
Division Structure and Course Descriptions

Soc 3121f. Sociology of Gender. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #) Relationships among sex, gender, and society. Gender as a factor in stratification systems, social interaction, and institutions such as the economy, the family, and religion.

Soc 3131f. World Population. (Envt; 4 cr; prereq 1101 or #) Population theory and demographic method. Dynamics of fertility and mortality as the basis of population forecasting and its policy implications. Emphasis on the tie between Third World demographic trends and population issues in the rest of the world.

Soc 3141f. Sociology of Deviance. (E/CR; 4 cr; prereq 4 cr in Soc or #) Theoretical and empirical issues recurring in the sociological literature on deviant behavior.

Soc 3200. Variable Topics in Social Stratification. (HDiv; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #; offered when feasible) Hierarchies of power, wealth, and prestige; analysis of various theories of stratification. Class, status, race, minorities (e.g., African Americans, American Indians), caste, and gender evaluated in terms of stratification.

Soc 3250f.s. Variable Topics in Social Structure. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #) In-depth study of one topic in sociology such as African American social institutions, the economic and social elite, bureaucracy, urban communities, social control, population, and demography.

Soc 3251f. African Americans. (HDiv; 4 cr; prereq 1101 or Anth 1111) Soc 3252s. Women in Muslim Society. (IP; 4 cr; prereq 1101 or Anth 1111) Soc 3254s. The Sociology of Religion. (SS; 4 cr; prereq 1101 or Anth 1111 or #, 4 addl cr in Soc or Anth recommended; not offered 2004-05) An examination of sociological theories concerning religion, the sociology of world religions, religious institutions, and religious and social problems or concerns (oppression, birth control, ethnic differences, etc.) in the U.S. and other parts of the world. Religion and social control. Religion and resistance or revolution.

Soc 3301s. India and South Asia. (IP; 4 cr; prereq 1101 or Anth 1111 or #) Same as Anth 3301. Examination of the cultures and societies of several South Indian countries with a primary focus on India. Topics include a brief history, economic and social issues and conditions, marriage and kinship practices, religions, regional differences, regional and international conflicts, and cultural and social change.

Spch 1061f. Interpersonal Communication. (SS; 4 cr; not offered 2004-05) Basic theory and practice of interpersonal communication in a variety of contexts.

Spch 1071f. Introduction to Groups: Principles and Practices. (SS; 4 cr; not offered 2004-05) Group theory and directed practice in a variety of group situations, e.g., panels, symposia, and forums.

Spch 3401f. Human Communication Theory. (SS; 4 cr; prereq 2101 or #) Detailed study of the theoretical tradition of human communication. Focuses on social scientific and humanities theories used to explain social interaction. Provides general foundation on various traditions of inquiry as well as qualitative and quantitative methods.

Spch 3411f. Intercultural Communication Theory and Research. (HDiv; 4 cr; prereq 2101 or #) Study of intercultural communication from an interpersonal and group perspective.

Spch 3421s. Organizational Communication Theory and Research. (SS; 4 cr; prereq 2101 or #) Study of organizational communication, including small group perspectives.

WSS 1051f.s. Fitness for Life. (2 cr) Factors associated with a positive lifestyle, assessment of each individual’s current wellness status, and development of a personal lifetime program for improving one’s quality of life.

Management (Mgmt)

This discipline is in the Division of the Social Sciences. It offers a multidisciplinary liberal arts-based program that allows students to enter the field of management as a professional or proceed to graduate studies.

Objectives—The management curriculum focuses on those areas of human knowledge that concern the operation and control of business and nonprofit organizations. In addition to developing competence in analytical and core business areas, students majoring in the field are expected to learn to critically examine business and other institutions from a liberal arts perspective. Specifically, management students:

1. understand and use a variety of techniques to manage financial, human, and material resources
2. are able to critically conceptualize business problems and to develop appropriate strategies for problem solving
3. understand and use a variety of quantitative analysis techniques appropriate for business
4. develop collaborative skills
5. be competent in written and oral communication
6. develop competence in computer skills
7. are prepared for professional careers in business or public service, or for graduate studies
8. are able to see relationships between management and other liberal arts disciplines.

Requirements for a major include analytical, core, and requirements from a chosen area of emphasis.
Major Requirements

Analytical Skills
Stat 1601—Introduction to Statistics or Stat 2601—Statistical Methods

Core Requirements
Econ 1111—Principles of Microeconomics
Econ 1112—Principles of Macroeconomics
Mgmt 2101-2102—Principles of Accounting I-II
Econ 490x—Variable Topics in Economic Research
8 credits in Mgmt courses at 3xxx or above, exclusive of those used to satisfy emphasis requirements
8 additional credits in Mgmt or Econ courses at 3xxx or above, exclusive of those used to satisfy emphasis requirements

No more than 4 credits from each of the following can be applied to the major:
Econ 490x—Variable Topics in Economic Research
Mgmt x993—Directed Study

Emphasis Requirements
Students must complete the requirements from one of the following areas of emphasis:

I. Financial Management
Math 1101—Calculus I
Spch 1051—Introduction to Public Speaking
or Spch 1000—Variable Topics in Introduction to Public Speaking
Mgmt 3101—Financial Management
At least 8 credits from Mgmt 3133, 4101, 46xx, Econ 3113, 4131, 4131H

II. Global Business
Mgmt 3601—Transnational Enterprise
8 credits of Fren, Ger, Span or other approved language at 2xxx or above
4 credits of coursework other than Econ or Mgmt at 3xxx and above that carries the IP general education designation
At least 8 credits from Econ 3131, 3141, 3142, 4121, 4121H, 4131, 4131H, Mgmt 45xx

III. Organizations and Human Resources
Spch 1051—Introduction to Public Speaking
or Spch 1000—Variable Topics in Introduction to Public Speaking
Phil 2112—Professional Ethics
Mgmt 3151—Human Resource Management I
10 credits taken from 3152, 3161, 3162, 3221, 351x, 3701, Econ 4101, Econ 4102, Psy 3302, Psy 3501, Soc 2101, Soc 3121, Spch 3421, with at least 6 of these credits from Econ or Mgmt
Grades of D in Mgmt 2101-2102, Econ 1111-1112, Math 1101, or Stat 1601 may not be used to meet major requirements. Up to 4 credits of other management coursework with a grade of D may be used to meet major requirements if offset by an equivalent number of credits of A or B. Required courses may not be taken S-N unless offered S-N only.

Note: Students should complete Mgmt 2101-2102, Econ 1111-1112, Math 1101, and Stat 1601 or their equivalents during their first two years. Students intending on going to graduate school are strongly recommended to take Math 1101-1102. Students are also recommended to take Phil 2112—Professional Ethics, if not required to do so. Prospective majors should see a management faculty member before registering for classes. Consultation with an adviser is essential to program planning.

Minor Requirements
Mgmt 2101-2102—Principles of Accounting I-II
Econ 1111—Principles of Microeconomics
Econ 1112—Principles of Macroeconomics
10 additional credits in Mgmt courses at 3xxx or above
No more than 4 credits from each of the following can be applied to the minor:
Econ 490x—Variable Topics in Economic Research
Mgmt x993—Directed Study
Grades of D in Mgmt 2101-2102 or Econ 1111-1112 may not be used to meet minor requirements.
Required courses may not be taken S-N unless offered S-N only.

Course Descriptions

Mgmt 2101f. Principles of Accounting I. (4 cr)
An introductory course in accounting principles and practices. The students develop an understanding of both the conceptual and procedural framework of the accounting processes. Emphasis is placed on the preparation and communication of accounting information and the financial statements for a proprietorship.

Mgmt 2102s. Principles of Accounting II. (4 cr; prereq 2101)
A continuation of Principles of Accounting I. Students develop an understanding of the issues unique to partnerships, corporations, and organizational financing. Cash flow statements and performance analysis are also emphasized.

Mgmt 3000. Variable Topics in Management. (See specific topics for general ed categories; 2 cr; repeatable when topic changes; prereq varies by topic; offered when feasible)
Topic to be announced.

Mgmt 3101f. Financial Management. (SS; 4 cr; prereq 2101)
Financial analysis, theory and practice, financial leverage, capital budgeting, cost of capital, dividend policy, capital market theory, and working capital management.

Mgmt 3133f. Managerial Accounting. (4 cr; prereq 2102)
Managerial accounting is designed to help managers assess needed information to carry out three essential functions in an organization: planning operations, controlling activities, and making decisions. The emphasis of this course is placed on cost behaviors, various product costing methods, cost-volume-profit relationships, budgeting and control through standard costs, and other quantitative techniques used by management.
Division Structure and Course Descriptions

Mgmt 3141. Business Law I. (SS; 2 cr; prereq 2101 or #; offered when feasible)
Law as it relates to the commercial world, including the legal environment, federal regulation, contracts, agency, sales.

Mgmt 3142. Business Law II. (SS; 2 cr; prereq 2101 or #; offered when feasible)
Law as it relates to the commercial world, including the legal environment, commercial paper, corporations, secured transactions, bankruptcy, anti-trust law, and selected employment statutes.

Mgmt 3151s. Human Resources Management I. (E/CR; 2 cr; prereq 2101 or #)
An introduction to the functional areas of human resource management through the use of case studies. Topics include legal issues, planning, recruitment, training, evaluation, and compensation.

Mgmt 3152. Human Resources Management II. (HDiv; 2 cr; prereq 2101 or #; offered when feasible)
Topics in human resource management: evaluating employee performance, compensation and benefits, safety, labor relations, international human resource management.

Mgmt 3161s. Labor Management Relations I. (E/CR; 2 cr; prereq Econ 1111 or #; not offered 2003-04)
Historical development of labor relations and the legal framework governing collective bargaining. Labor relations law reform. Case studies from labor relations law.

Mgmt 3162s. Labor Management Relations II. (SS; 2 cr; prereq 3161 or #; offered when feasible)
Issues in labor-management negotiation, grievances, wages and economic security plans, public policies toward collective bargaining. Case studies from labor arbitration.

Mgmt 3201s. Marketing Principles and Strategy. (SS; 4 cr; prereq 2102, Stat 1601 or #; offered when feasible)
Basic factors affecting policy and strategy issues in marketing. Economic, legal, behavioral, environmental, competitive, and technological factors as they affect product, pricing, promotion, and marketing-channel decisions.

Mgmt 3221f. Management and Organization Theory. (SS; 4 cr; prereq 2101, Econ 1101 or #)

Mgmt 3301s. Management Science. (M/SR; 4 cr; prereq 2102, Stat 1601; offered when feasible)
Application of quantitative methods to decision making in business. Topics may include linear programming, forecasting and other probabilistic techniques, inventory management, network models, project management, decision theory, transportation and assignment models, simulation, Markov analysis, integer programming, Monte Carlo simulation.

Mgmt 3501s. Applied Deterministic Modeling for Management Science. (M/SR; 2 cr; prereq 2102, Math 1101 or Stat 1601 or Stat 2601 or #)
Same as Math 3501. Formulations of real-world problems as Linear Programming or Integer Linear Programming models; graphical solutions of some LP models. Linear Programming: the Simplex method, intuitive ideas behind the Simplex method. Using software to solve LP problems; interpreting optimal solutions; sensitivity analysis; duality. Network diagram representation; critical path method (CPM-PERT); transportation problem.

Mgmt 3502s. Applied Probabilistic Modeling for Management Science. (M/SR; 2 cr; prereq 2102, Math 1101 or Stat 1601 or Stat 2601 or #)
Same as Math 3502. Short review of probability and statistics; mean and variance of a data set; discrete and continuous random variables (especially the Exponential distribution and the Poisson distribution). Decision and game theory. Decision trees, types of decision criteria. Queuing models, birth-and-death processes; Markovian or Poisson arrivals and exponential service times: M/M/k and M/M/8 queues; Statistical Quality Control; inventory control system.

Mgmt 3512s. Group Dynamics. (SS; 2 cr; prereq 3221 or Psy 3501 or Psy/Mgmt 3701)
Same as Psy 3512. Uses the behavioral sciences to take an applied and theoretical perspective on group dynamics. Topics include teams, teams versus groups, group decision-making, group performance, group structure, and group socialization.

Mgmt 3513s. Negotiation. (SS; 2 cr; prereq 3221 or Psy 3501 or Psy/Mgmt 3701)
Same as Psy 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, and ethics. Use of negotiation simulations.

Mgmt 3601f. Transnational Enterprise. (IP; 2 cr; prereq 2102, Econ 1111, Econ 1112 or #)
Development and transformation of business enterprise within the global economy. Includes the basic impact of structural, institutional, and organizational change upon the dynamics of the firm and industry in the contemporary hyper-competitive, technology-driven, fast-paced, global environment.

Mgmt 3701. Organizational Behavior. (SS; 4 cr; prereq jr or sr)
Same as Psy 3701. Uses the theories and research of the behavioral sciences to understand how organizations function at the individual, group, and organizational levels. Topics include stress in the workplace, group dynamics, power, leadership and attribution theory.

Mgmt 4101s. Investment and Portfolio Analysis. (SS; 4 cr; prereq 2101, 2102, 3101)
Economic and investment environment as it relates to security investment decisions. Includes analysis of stocks, bonds, real assets, and derivative securities as well as portfolio theory and efficient market theory.

Mgmt 4200. Variable Topics in Managerial Economics. (SS; 2-4 cr; repeatable when topic changes; prereq 2101, Econ 1111, Econ 1112, Math 1101, Stat 1601 or #; offered when feasible)
Mgmt 4201. Introduction to Industry Analysis. (SS; 2 cr; prereq 2101, Econ 1111, Econ 1112, Math 1101, Stat 1601 or #)
Introduction to elements of industry analysis from a microeconomics primer to an initial look at Porter’s Five Forces framework.
Mgmt 4202. Introduction to Strategic Positioning. (SS; 2 cr; prereq 2101, Econ 1111, Econ 1112, Math 1101, Stat 1601 or #)
Further development of industry analysis; introduction to value creation in relation to competitive advantage and the strategic positioning of the firm.

Mgmt 4500. Variable Topics in Global Business. (IP; 2-4 cr; repeatable when topic changes; see specific topics for prereqs)
Epochal changes surrounding structure, institutional dynamics, and organizational adaptation/challenges of global business. Possible topics: globalization process, skill formation and technological change, labor relations, oil and energy, child labor, environmental standards, financial crises, sweatshops, competitive struggle/business ethics.

Mgmt 4501. Globalization and Business Strategy. (IP; 2 cr; prereq Econ 1111, Econ 1112 or #)
Review of the impact of increasing globalization of the corporate and economic environment; application of strategic methods to new business conditions.

Mgmt 4502. Technological Change, Labor Markets, and Skill Formation. (IP; 2 cr; prereq Econ 1111, Econ 1112 or #)
The change of technology in relation to the formation of skills and the transformation of regional labor markets throughout the world. The intimate relationship between “skilling” and “deskilling” of labor and the transformation of technology.

Mgmt 4503. Stabilization and Development in Latin America. (IP; 2 cr; prereq Econ 1111, Econ 1112 or #)
Macroeconomic instability and the attempts to overcome it throughout the course of the last century have been central to the economic history of Latin America (and arguably to its political and social history as well). Reviews that historical experience together with the ideas about development that it generated. Latin America’s current insertion into the modern global economy, as well as some of its idiosyncratic economic challenges and intellectual perspectives.

Mgmt 4600. Variable Topics in Finance. (SS; 2-4 cr; repeatable when topic changes; prereq 3101 or #; offered when feasible)
Topic to be announced.

Mgmt 4601. Advanced Topics in Financial Economics. (SS; 2 cr; prereq 3101 or #)
Continuation of Mgmt 3101. Topics include dividend policy, hybrid financing, derivatives, and mergers.

Mgmt 4896. Internship. (1-4 cr; repeatable to 4 cr; 2 cr may be applied toward major or minor; prereq 2102; S-N only)
Supervised educational experience and field application relevant to student’s major. Written analysis appropriate to the application is required.

Mgmt 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

Mgmt 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Mathematics (Math)
This discipline is in the Division of Science and Mathematics.

Objectives—The mission of the discipline is to advance knowledge of mathematics: by teaching mathematics and its processes, by research in mathematics and mathematical pedagogy, and by dissemination of this knowledge to students and the community we serve.

Historically, the study of mathematics has been central to a liberal arts education. The mathematics curriculum serves as an integral part of students’ active pursuit of a liberal arts education. The discipline’s mission concentrates on the three main components of the institutional mission, namely, teaching, research, and outreach. The mathematics program serves students who major or minor in mathematics, seek secondary mathematics teaching licensure, major or minor in programs that require a mathematical background, or wish to fulfill components of a general education. The mathematics faculty provide guidance to students who choose to design their own major/minor. The discipline’s mission includes dissemination of mathematical knowledge to the community.

The mathematics curriculum is designed to help students develop competence in mathematical techniques and methods. It aims to sharpen the students’ mathematical intuition and abstract reasoning as well as their reasoning from numerical data. It also encourages and stimulates the type of independent thinking required for research beyond the confines of the textbook. The mathematics program aims to provide students with the basic knowledge and skills to make mathematical contributions to modern society, whether in the form of pure mathematics or of mathematics applied in other disciplines. The program seeks to enable students to see and communicate how the development of mathematics has been part of the development of several civilizations and is intimately interwoven with the cultural and scientific development of these societies. The curriculum prepares students to enter graduate school, pursue careers in applied mathematics, or teach mathematics.

The discipline uses various assessment methods and tools to evaluate and improve student academic achievement in mathematics. The results of the assessment help the discipline to shape a curriculum that is responsive to student needs. The Mathematics Major/Minor Student Portfolio is the major assessment tool used by the discipline. It includes characteristics of the entering student, documents related to the learning development of
the student during his or her stay at UMM, and post-graduation information. Some other assessment methods and tools include proficiency tests in basic skills courses, performance in course projects, and specially designed exams in some courses. Graduates of the program are surveyed regularly to assess discipline objectives.

**Major Requirements**
Math 1101-1102-2101—Calculus I-II-III
Math 2111—Linear Algebra
Math 2202—Mathematical Perspectives
Math 3221—Analysis
Math 3231—Abstract Algebra I
Math 4901—Senior Seminar
Stat 2611—Mathematical Statistics
one course numbered Math x4xx

Students also are required to take a course with significant mathematical applications outside the mathematics discipline. This course must be approved by the mathematics discipline. Courses which meet this requirement are listed online at [www.mrs.umn.edu/academic/math/app-require.html](http://www.mrs.umn.edu/academic/math/app-require.html).

Required courses may not be taken S-N unless offered S-N only. Up to 6 credits of coursework with a grade of D may be used to meet the major requirements if offset by an equivalent number of credits of A or B.

Majors should begin with Math 1011—Pre-Calculus or Math 1101—Calculus I. Students with questions about placement are encouraged to discuss them with members of the mathematics faculty. Recommended courses for students planning to pursue graduate work in pure mathematics are:
Math 4201—Complex Analysis
Math 4211—Real Analysis
Math 4221—Topology
Math 4231—Abstract Algebra II
Math 4241—Number Theory

The recommended electives for students planning to work or pursue graduate work in applied mathematics or related fields are:
Math 2401—Differential Equations
Math 3401—Operations Research
Math 3411—Discrete and Combinatorial Mathematics
Math 4401—Numerical Methods with Applications in Mathematical Modeling
Math 4450—Variable Topics in Applied Mathematics

**Minor Requirements**
Math 1101-1102—Calculus I-II
Math 2111—Linear Algebra

a minimum of 12 additional credits in Math courses at 2xxx or above in at least two of the following numbering systems x2xx, x4xx, x5xx, or Stat 2611

**Requirements**
Required courses may not be taken S-N unless offered S-N only. Up to 6 credits of coursework with a grade of D may be used to meet the minor requirements if offset by an equivalent number of credits of A or B.

**Teacher Preparation Requirements**
Students seeking teaching licensure in mathematics 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

**Course Descriptions**

**Math 0901f. Basic Algebra.** (0 cr toward graduation, 4 cr toward financial aid)
Sets, absolute values, linear equations and inequalities, functions and graphs, arithmetic of complex numbers, quadratics, radicals, exponents and logarithms, and linear systems of equations.

**Math 1001s. Survey of Math.** (M/SR; 4 cr; prereq 2 yrs high school math)
Introductory topics in mathematics, such as number system, geometry, algebra, discrete mathematics, statistics, logic, and the history of mathematics, including applications in today’s world.

**Math 1011f,s. Pre-Calculus.** (4 cr; prereq high school higher algebra, geometry; intended to prepare students for Math 1101)
Polynomial, rational, exponential, logarithmic, and trigonometric functions; trigonometric identities and equations; polar coordinates and topics from analytic geometry; systems of equations, geometric, series; binomial theorem.

**Math 1021f. Survey of Calculus.** (M/SR; 4 cr; prereq high school higher algebra, geometry or 1011)
Short course for students in social sciences, biological sciences, and other areas requiring a minimal amount of calculus. Topics include basic concepts of functions, derivatives and integrals, exponential and logarithmic functions, maxima and minima, partial derivatives; applications.

**Math 1101f,s. Calculus I.** (M/SR; 5 cr; prereq high school higher algebra, geometry or 1011)
Limits and continuity; the concepts, properties, and some techniques of differentiation, antidifferentiation, and definite integration and their connection by the Fundamental Theorem. Partial differentiation. Some applications. Students learn the basics of a computer algebra system.

**Math 1102f,s. Calculus II.** (M/SR; 5 cr; prereq 1101)

**Math 2101f,s. Calculus III.** (M/SR; 4 cr; prereq 1102 or #)
Multivariable and vector calculus. Three-dimensional analytic geometry; partial differentiation; multiple integration; gradient, divergence, and curl; line and surface integrals; divergence theorem; Green and Stokes theorems; applications.

**Math 2111f,s. Linear Algebra.** (M/SR; 4 cr; prereq 1101 or #)
Matrix algebra, systems of linear equations, finite dimensional vector spaces, linear transformations, determinants, inner-product spaces, characteristic values and polynomials, eigenspaces, minimal polynomials, diagonalization of matrices, related topics; applications.
Math 2202s. Mathematical Perspectives. (M/SR; 4 cr; prereq 1101)
Introduction to the methodology and subject matter of modern mathematics. Sets, functions, relations, cardinality, and induction. The axiomatic method: definitions and examples of graphs, metric spaces, groups and rings. Roots of complex polynomials. Other selected topics.

Math 2211f. History of Mathematics. (4 cr; prereq Math course above 1100 or #; not offered 2003-04)
Historical development of various areas in mathematics and important figures in mathematics from ancient to modern times.

Math 2401f. Differential Equations. (M/SR; 4 cr; prereq 1102 or #)
First-order and second-order differential equations with methods of solution and applications, systems of equations, series solutions, existence and uniqueness theorems, the qualitative theory of differential equations.

Math 2501f. Probability and Stochastic Processes. (M/SR; 4 cr; prereq 1101 or #)

Math 3211f. Geometry. (M/SR; 4 cr; prereq Math course above 1100; not offered 2004-05)
Synthetic approach to Euclidean and non-Euclidean geometries. Selected topics from affine, hyperbolic, spherical, projective geometries. Possible comparisons of analytic and synthetic approaches. May include other related topics or use of computer software for geometry.

Math 3221f. Analysis. (M/SR; 4 cr; prereq 1102, 2301 or #)
Introduction to real and complex analysis. The main topics of calculus—convergence, continuity, differentiation, integration, and series—applied and extended in advanced settings. Emphasis on precise statements and rigorous proofs. Selected applications to other sciences.

Math 3231s. Abstract Algebra I. (M/SR; 4 cr; prereq 2111, 2301 or #)
Systematic study of groups and rings, making use of linear algebra. Groups as codifying symmetry throughout mathematics and its applications. The Euclidean algorithm and its consequences, both for integers and polynomials. Other selected topics and applications.

Math 3401s. Operations Research. (M/SR; 4 cr; prereq 1100 or higher or #)
Topics include, but are not limited to, linear and integer linear programming formulations, sensitivity analysis and duality, network models and applications.

Math 3411f. Discrete and Combinatorial Mathematics. (M/SR; 4 cr; prereq 1100 or higher or #)
Propositional logic; equivalence relations; recurrence equations; structures and properties of undirected and directed graphs; applications of the aforementioned topics.

Math 3501s. Applied Deterministic Modeling for Management Science. (M/SR; 2 cr; prereq 1101 or 1601 or 2601 or Stat 2611, Mgmt 2102 or #)
Same as Mgmt 3501. Formulations of real-world problems as Linear Programming or Integer Linear Programming models: graphical solutions of some LP models. Linear Programming: the Simplex method, intuitive ideas behind the Simplex method. Using software to solve LP problems; interpreting optimal solutions; sensitivity analysis; duality. Network diagram representation; critical path method (CPM-PERT); transportation problem.

Math 3502s. Applied Probabilistic Modeling for Management Science. (M/SR; 2 cr; prereq 1101 or 1601 or 2601 or Stat 2611, Mgmt 2102 or #)
Same as Mgmt 3502. Short review of probability and statistics; mean and variance of a data set; discrete and continuous random variables (especially the exponential distribution and the Poisson distribution). Decision and game theory. Decision trees, types of decision criteria. Queuing models, birth-and-death processes; Markovian or Poisson arrivals and exponential service times; M/M/k and M/M/8 queues; Statistical Quality Control; inventory control system.

Math 4201s. Complex Analysis. (M/SR; 2 cr; prereq 3221 or #; not offered 2004-05)
Differentiable and analytic functions of a complex variable. Contour integral theorems. Laurent expansions. Other topics optional.

Math 4211s. Real Analysis. (M/SR; 2 cr; prereq 3221 or #; not offered 2003-04)
The extension of the theory of integration to other forms of integrals. Metric spaces and functions defined on these. Other optional topics.

Math 4221f. Topology. (M/SR; 2 cr; prereq 2301 or #; not offered 2004-05)
Selected topics from point set topology and/or algebraic topology.

Math 4231f. Abstract Algebra II. (M/SR; 2 cr; prereq 3231 or #; not offered 2003-04)
Selected topics from the theory of finite groups, Galois theory of fields, and/or the theory of rings.

Math 4241f. Number Theory. (M/SR; 2 cr; prereq 2301 or #; not offered 2004-05)
Selected topics from modular congruences, theory of primes, classical Diophantine equations, and the connections with algebraic curves.

Math 4250. Variable Topics in Pure Mathematics. (M/SR; 2 cr; repeatable when topic changes; prereq #; offered when feasible)
Treatment of an advanced pure mathematics topic not included in the regular curriculum.

Math 4401s. Numerical Methods With Applications in Mathematical Modeling. (M/SR; 4 cr; prereq 2111, 2401 or #; not offered 2003-04)
Finite differences; interpolation; numerical integration; numerical solutions of differential, algebraic, and transcendental equations; continuous mathematical models.

Math 4450s. Variable Topics in Applied Mathematics. (M/SR; 4 cr; repeatable when topic changes; prereq #; not offered 2004-05)
Treatment of advanced applied mathematics not included in the regular curriculum.
Math 4901f. Senior Seminar. (M/SR; 1 cr; prereq sr)
This is a full-year course, required for all mathematics
majors in their senior year. Students must attend year
round and present one of the seminars.

Math 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study.
(1-5 cr; repeatable; prereq @)

Math 4994f,s. Senior Honors Project. (1-5 cr; repeatable;
prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the
undergraduate level) within the discipline. Successful
completion of the senior honors project is one of the
requirements for graduating from UMM “with honors.”

Music (Mus)
This discipline is in the Division of the
Humanities. The music curriculum offers a
wide range of courses for the music major. It
also has strong appeal to the general student,
especially in the activities of the instrumental
and vocal ensembles.

Objectives—Students become familiar with the
traditions of Western and non-Western music
through theoretical analysis, research,
performance, and historical survey. The
curriculum fosters the development of the
critical ability necessary to understand those
traditions. Students experience the unique
relationship between research and performance
in music. Theoretical and practical courses that
provide a sound academic background in music
are available for those who intend to pursue
graduate study, teach, or fulfill general
education requirements.

Major Requirements
7 enrollments in Mus 0100—Concert Attendance

Core Studies I
Mus 1101—Music Theory I
Mus 1102—Music Theory II

Core Studies II
Mus 2101—Advanced Music Theory III
Mus 2102—Advanced Music Theory IV

Core Studies III
Mus 3101—Medieval, Renaissance, and Baroque
Music
Mus 3102—Classical, Romantic, and 20th-Century
Music

7 credits in Individual Performance Studies in the
major area, of which a minimum of two
semesters must be in the Mus 3200—Advanced
Individual Performance Studies series

Mus 4901—Senior Project
Piano proficiency

6 additional credits in Mus courses at 3xxx or above

Courses with grades of D may not be used to meet the
major requirements. Required courses may not be
taken S-N except where noted.

Minor Requirements
20 credits including:

Core Studies I
Mus 1101—Music Theory I
Mus 1102—Music Theory II
and either:

Core Studies II
Mus 2101—Advanced Music Theory III
Mus 2102—Advanced Music Theory IV

or Core Studies III
Mus 3101—Medieval, Renaissance, and Baroque
Music
Mus 3102—Classical, Romantic, and 20th-Century
Music

Courses with grades of D may not be used to meet the
minor requirement. Required courses may not be
taken S-N except where noted.

Teacher Preparation Requirements
Students seeking teaching licensure in
instrumental music K-12 or vocal music K-12
should refer to the Education, Secondary
(SeEd) section of this catalog.

Course Descriptions

Mus 0100f,s. Concert Attendance. (0 cr; repeatable; prereq
major; S-N only)
Encourages concert attendance as an important aspect of
learning about music—the literature, various media,
performance practice, and related topics. Satisfactory
completion is attendance at a minimum of 15 listed
concert offerings each semester.

Mus 1041f. Introduction to Music. (FA; 4 cr)
Survey emphasizing development of an intelligent under-
standing and appreciation of music. For non-music majors.

Mus 1042s. Fundamentals of Music. (FA; 4 cr; not offered
2004-05)
The rudiments of music including note and rhythmic
reading, scales, chords, beginning chord progressions,
and practical keyboard work in the piano lab.

Mus 1043. American Jazz Styles. (FA; 4 cr; offered when
feasible)
Development and analysis of the New Orleans dixieland,
ragtime, stride, boogie-woogie, Chicago dixieland,
swing, bop, cool, funky, progressive, third-stream, free
form, and fusion jazz styles. Introductory course to help
non-music majors to become familiar with and appreciate
this art form.

Mus 1044f,s. Class Piano. (ArtP; 1 cr; special fee required)
Introduction to piano performance for students with no
previous piano training. Students learn basic keyboard
skills, including note reading, fingering, and counting.
Study beginning piano technique and learn to perform
elementary-level solos and ensembles.

Mus 1045f,s. Class Guitar. (ArtP; 1 cr; special fee required)
Introduction to guitar performance for students with no
previous guitar training. Students learn basic guitar skills,
study beginning guitar technique, and learn to perform
music.
Mus 1050f,s. Accompanying. (ArtP; 1 cr; repeatable to 8 cr; prereq #; S-N only)
Students who accompany private lessons and recitalists may receive credit. Accompanying assignments are made through consultation with the piano faculty.

Mus 1070f,s. Instrumental Chamber Ensemble. (ArtP; 1 cr; repeatable to 8 cr; prereq #)
Performance of instrumental chamber music. Groups are formed according to the interests of students and availability of materials.

Mus 1080f,s. JazzCombo. (ArtP; 1 cr; repeatable to 8 cr; prereq #)
Performance of instrumental jazz music with emphasis on improvisation.

Mus 1090f,s. Vocal Chamber Ensemble. (ArtP; 1 cr; repeatable to 8 cr; prereq #)
Performance of vocal ensemble music especially written for smaller groups.

Mus 1101f. Core Studies I: Music Theory I. (M/SR; 4 cr; prereq major or minor or #)
First course in a series of four. Basic harmonic techniques, initial analysis of scores, and introduction to four-part writing. Must have adequate skills in grand staff reading at the start of the course.

Mus 1102s. Core Studies I: Music Theory II. (M/SR; 4 cr; prereq 1101, major or minor or #)
Harmonic progression and modulation, seventh chords, secondary dominants and sevenths, analysis of scores with attention to two- and three-part forms.

Mus 1200-1222f,s. Individual Performance Studies. (ArtP; 1 cr per sem for each; repeatable to 8 cr; prereq #; special fee required)
Private instruction in the following areas is open to all students. It is recommended that music majors fulfill their requirement of 7 credits in successive enrollments in order to maintain continuous emphasis in the major performance area. The 3200 series is intended for music students who have achieved an advanced performance level. A jury examination in the major performance area is required to progress to the advanced performance level. A jury examination provides an effective check on students who have achieved an advanced performance level. A jury examination in the major performance area. The 3200 series is intended for music students at an advanced level of performance. For listing of performance areas, see Mus 1200 above (excluding piano accompanying). Note: Applied music instructors are not expected to make up sessions for unexcused absences from scheduled lessons.

Mus 1204. Voice
Mus 1205. Violin
Mus 1206. Viola
Mus 1207. Cello
Mus 1208. Double Bass
Mus 1209. Flute
Mus 1210. Oboe
Mus 1211. Clarinet
Mus 1212. Saxophone
Mus 1213. Bassoon
Mus 1214. Trumpet
Mus 1215. French Horn
Mus 1216. Trombone
Mus 1217. Baritone
Mus 1218. Tuba
Mus 1219. Percussion
Mus 1220. Recorder
Mus 1221. Guitar
Mus 1222. Electric Bass

Mus 1300f,s. Concert Band. (ArtP; 1 cr; repeatable to 8 cr; S-N only)
Rehearsals and concerts cover standard and contemporary band literature with emphasis on concert performance. Several concerts annually in addition to a spring concert tour.

Mus 1310f,s. University Choir. (ArtP; 1 cr; repeatable to 8 cr; prereq #; S-N only)
Preparation of choral works for at least one public concert each semester and other special events. Emphasis on basic choral singing techniques.

Mus 1320f,s. Concert Choir. (ArtP; 1 cr; repeatable to 8 cr; prereq #; S-N only)
Preparation of choral works from all major periods of music literature with emphasis on concert performance. Several public concerts and appearances scheduled each semester in addition to a spring concert tour.

Mus 1330f,s. Jazz Ensemble. (ArtP; 1 cr; repeatable to 8 cr; S-N only)
Rehearsals and concerts cover the literature for this medium.

Mus 1340fs. Orchestra. (ArtP; 1 cr; repeatable to 8 cr; S-N only)
The study and preparation of standard orchestral works for performance at several public concerts and appearances each semester in addition to a concert tour. The study of basic orchestral procedure.

Mus 2101f. Core Studies II: Music Theory III. (Hum; 4 cr; prereq 1102, major or minor or #)
Chromatic harmony of the Classical Period; borrowed chords, Neapolitan and augmented sixths; harmonic and formal analysis of scores including variation, sonata, and rondo forms.

Mus 2102s. Core Studies II: Music Theory IV. (Hum; 4 cr; prereq 2101, major or minor or #)
Extended chromatic harmony of the Romantic and later eras; ninth, eleventh, and thirteenth chords; altered dominants and chromatic mediants; analysis of scores including nonfunctional harmony and twelve-tone techniques.

Mus 3101f. Core Studies III: Medieval, Renaissance, and Baroque Music. (Hist; 4 cr; prereq 1102, major or minor or #)
Historical development of Western music and representative literature of the various periods and styles.

Mus 3102s. Core Studies III: Classical, Romantic, and 20th-Century Music. (FA; 4 cr; prereq 1102, major or minor or #)
Historical development of Western music and representative literature of the various periods and styles.

Mus 3200-3222f,s. Advanced Individual Performance Studies. (ArtP; 1 cr per sem for each; repeatable to 8 cr; prereq #)
Private instruction in the major performance area for music students at an advanced level of performance. For listing of performance areas, see Mus 1200 above (excluding piano accompanying). Note: Applied music instructors are not expected to make up sessions for unexcused absences from scheduled lessons.
Mus 3301f. Instrumental Techniques—Woodwind. (1 cr; prereq major or minor or #: not offered 2004-05) Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the woodwind instruments.

Mus 3302s. Instrumental Techniques—Brass and Percussion. (1 cr; prereq major or minor or #: not offered 2004-05) Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the brass and percussion instruments.

Mus 3303f. Instrumental Techniques—Strings. (1 cr; prereq major or minor or #: not offered 2004-05) Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the string instruments.

Mus 3304s. Vocal Techniques. (1 cr; prereq major or minor or #: not offered 2004-05) Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the voice.

Mus 3311f. Conducting Techniques. (2 cr; prereq major or minor or #: not offered 2004-05) Instrumental and choral conducting skills.

Mus 3321s. Instrumental Conducting and Materials. (2 cr; prereq 3311, major or minor or #: not offered 2004-05) Specialization of instrumental conducting and a survey of ensemble materials for various levels of ability and maturity.

Mus 3331s. Choral Conducting and Materials. (2 cr; prereq 3311, major or minor or #: not offered 2004-05) Specialization of choral conducting and a survey of ensemble materials for various levels of ability and maturity.

Mus 3400s. Opera Workshop. (ArtP; 1 cr; repeatable to 4 cr; prereq #: not offered 2004-05) Practical introduction to opera performance. Students become familiar with a number of operas and musical comedies and perform selections emphasizing ensemble work.

Mus 3500f,s. Composition. (1-4 cr; repeatable; prereq 1101, major or minor or #: not offered 2004-05) Original work guided on an individual basis.

Mus 3993f,s. Directed Study. (1-5 cr; repeatable; prereq #: not offered 2004-05) Practical introduction to opera performance. Students become familiar with a number of operas and musical comedies and perform selections emphasizing ensemble work.

Mus 4001s. Form and Analysis. (4 cr; prereq 1102, major or minor or #: not offered 2004-05) Analysis of musical forms, including the binary principle, the ternary principle, sonata allegro, rondo, and later alterations of the forms.

Mus 4901f,s. Senior Project. (1 cr; prereq major, #: S-N only) Culminating activity that allows a graduating student to demonstrate competence as a musician. Projects may take the form of a solo recital, lecture-recital, research paper, chamber music recital, or other major study. Project should be determined in the student’s junior year and approved by the music faculty. Majors taking Mus 3200 through 3219 normally satisfy this requirement with a senior recital.

Mus 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq major, participation in Honors Program, #: S-N only) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Continuing Education Courses

Mus 3051. CE: Piano Pedagogy I. (ArtP; 2 cr; prereq 1200 or #: additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement) This course is a study, demonstration, and discussion about the various elements of piano teaching methods, techniques, and materials for elementary and early intermediate levels. This includes analysis of various piano courses and piano literature, discussion of technical regimes, ideas for private and group lessons, and planning for the practical business aspect of teaching. Recommended for piano majors.

Mus 3052. CE: Piano Pedagogy II. (ArtP; 2 cr; prereq 1200 or #: additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement) This course covers much intermediate literature from each of the four major periods of music with practical ideas to put into immediate use by current teachers. Piano literature to motivate and retain students as well as the study of performance practices as they relate to each musical style are emphasized.

Natural Science (NSci)

This discipline is in the Division of Science and Mathematics.

Objectives—Courses in this group give students the opportunity to study scientific topics that reach across the boundaries of the traditional disciplines.

Course Descriptions

NSci 1051. The State of the Planet. (Envt; 4 cr; offered when feasible) An investigation of the present physical state of the soil, water, and atmosphere of the earth and how these important systems are changing. Soil generation and erosion, desertification, the hydrologic cycle, global climate change, ozone depletion.

NSci 2100. Variable Topics: Field Experience in Natural History. (Sci; 4 cr; repeatable when topic changes; offered when feasible) Field study of the natural history of a selected area (possible sites: western Minnesota, the Badlands, the Black Hills, Ireland, and Brazil); study of the geology, natural resources, soils, and vegetation of a region; understanding of the natural history and evolution of the landscape, fauna, and flora; influence of the natural setting on humans and environmental problems associated with human development.

NSci 3100. Scientific Biography and Autobiography. (Sci; 4 cr; repeatable when #: offered when feasible) The life, work, and times of eminent scientists through biography and autobiography.

NSci 3201H. Honors: Relativity and Cosmology. (Sci; 4 cr; prereq Math 1102, Phys 1102; prereq participation in Honors Program or #: offered when feasible) Special relativity: covariance, Lorentz transformation,

**Philosophy (Phil)**

This discipline is in the Division of the Humanities. The philosophy program provides an environment in which students receive rich, well-rounded instruction in philosophy whose pursuit is essential to a liberal arts education.

**Objectives**—The philosophy program is designed to offer students the opportunity to study systematically the works of significant figures in philosophy; investigate the fundamental problems and systems of thought that frame philosophical inquiry; develop the ability to think and write critically and effectively; and cultivate the logical, analytical, and conversational skills necessary for stimulating and fruitful philosophical inquiry.

**Major Requirements**

**include one from:**
- Phil 1111—Philosophical Skills
- Phil 2101—Introduction to Symbolic Logic

**any one from:**
- Phil 1101—Introduction to Philosophy
- Phil 1121—Introduction to the Philosophy of Religion
- Phil 2111—Introductory Ethics
- Phil 2141—Introduction to Analytic Feminism
- Phil 2150—Variable Introductory Topics in Philosophy

**any two from:**
- Phil 3121—Political Philosophy
- Phil 3131—Philosophy of Law
- Phil 4100—Variable Topics in Moral Issues and Theories
- Phil 4111—Ethical Theory

**Minor Requirements**

**include one from:**
- Phil 1111—Philosophical Skills
- Phil 2101—Introduction to Symbolic Logic

**any one from:**
- Phil 1101—Introduction to Philosophy
- Phil 1121—Introduction to the Philosophy of Religion
- Phil 2111—Introductory Ethics
- Phil 2141—Introduction to Analytic Feminism
- Phil 2150—Variable Introductory Topics in Philosophy

**Course Descriptions**

**Phil 1101. Introduction to Philosophy.** (Hum; 4 cr)
An introduction to fundamental philosophical problems, in areas such as metaphysics (what exists?), epistemology (what can we know? and how can we know it?), and ethics (what actions are moral and immoral? and what is the good life?), with an emphasis on developing the reading, writing, and analytical skills required for philosophical investigation.

**Phil 1111. Philosophical Skills.** (Hum; 4 cr)
This is a course in reasoning in which analytical skills for philosophical inquiry are developed. Emphasis on modal properties such as impossibility and necessity; modal relations like implication and consistency; and philosophical fallacies such as question-begging and circularity.

**Phil 1121. Introduction to the Philosophy of Religion.** (HDiv; 4 cr)
A course in reasoning in which analytical skills for philosophical inquiry are developed. Emphasis on modal properties such as possibility and necessity; modal relations like implication and consistency; and philosophical fallacies such as question-begging and circularity.

**Phil 2101f. Introduction to Symbolic Logic.** (M/SR; 4 cr)
An introduction to formal or deductive logic, including basic concepts of logical argumentation; Aristotelian logic; and symbolic translations, truth tables, and theory of deduction. Samples from political speeches, philosophical essays as well as original LSAT questions are analyzed.
Division Structure and Course Descriptions

Phil 2111f. Introductory Ethics. (Hum; 4 cr)
An introduction to philosophical accounts of what makes right acts right and wrong acts wrong, issues involving the concept of goodness, and arguments or debates about moral responsibility.

Phil 2112s. Professional Ethics. (E/CR; 4 cr)
A critical examination of moral issues that arise in a person’s professional life. Possible topics include affirmative action, autonomy in the workplace, ethical issues in advertising, corporate responsibility, coercive wage offers, distributive justice, and sexual harassment. Issues concerning race, gender, and women are included in selected modules.

Phil 2141. Introduction to Analytic Feminism. (Hum; 4 cr)
Applies an analytical approach to issues discussed in feminist writings. A mixture of lecture and discussion. Requirements include essay exams, papers, attendance, service-learning projects with related reflective journals, and class participation.

Phil 2150. Variable Introductory Topics in Philosophy. (Hum; 4 cr)
Exploration of a particular set of philosophical problems. A principal goal is to develop analytical, conversational, and writing skills necessary for philosophical inquiry. Topics vary from course offering to course offering.

Phil 3101. Metaphysics. (Hum; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Explores fundamental metaphysical issues such as the nature of reality, the notion of personal identity, the relationship between language, thought, minds, and the world. Philosophical works of both classic and contemporary philosophers such as Plato, Aristotle, Quine, Putnam, and Kripke are discussed.

Phil 3120s. Political Philosophy. (SS; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Explores fundamental issues in political philosophy (e.g., political authority; distributive justice; nature, origin, and justification of the state; natural and civil rights) by, among other things, an examination of the works of philosophers such as Plato, Hobbes, Mill, and Rawls.

Phil 3131. Philosophy of Law. (SS; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Critical examination of theoretical and practical normative issues in the philosophy of law (e.g., nature of law, justification of punishment, plea bargaining, legal and moral responsibility, and civil disobedience).

Phil 3141. The Theory of Knowledge. (Hum; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Explores historical and contemporary views on the limits, justification, and nature of human knowledge. Topics include experiential versus a priori knowledge, the nature of belief, skepticism, and different theories of justification.

Phil 3151. History of Ancient Philosophy. (Hist; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Explores the views of philosophers such as Plato, Aristotle, Epicurus, and the Stoics. Possible topics include ancient views on the nature and possibility of knowledge, the relationship of the soul to the body, and what the good life is for a human being.

Phil 3161. History of Medieval Philosophy. (Hist; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Explores views of philosophers such as Augustine, Boethius, Anselm, Bonaventure, Aquinas, and Ockham. Possible topics include the relationship between faith and reason, the problem of God’s foreknowledge and human freedom, and proofs for God’s existence.

Phil 3171. History of Modern Philosophy. (Hist; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Explore views of philosophers such as Descartes, Leibniz, Berkeley, Hume, and Kant. Possible topics include the relationship of the mind to the body, and whether and how it is possible to have knowledge of the external world.

Phil 4000f. Variable Topics in the History of Philosophy. (Hist; 4 cr; repeatable when topic changes; prereq any 1xxx or 2xxx course except 2101 or #)
Intensive investigation of a particular philosophical problem, area, or work of a philosopher. Topics vary.

Phil 4100f. Variable Topics in Moral Issues and Theories. (Hum; 4 cr; repeatable when topic changes; prereq any 1xxx or 2xxx course except 2101 or #)
Intensive investigation of a particular problem, area, issue, or theory in moral philosophy. Possible topics include moral responsibility, autonomy, weakness of will, and self-deception. Topics vary.

Phil 4111s. Ethical Theory. (Hum; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
This course in metaethics focuses on the nature of moral obligation. Topics include: Can moral obligations change with the passage of time? Are genuine moral dilemmas possible? Does “ought” imply “can”? Is moral obligation overriding? Is there a genuine distinction between “subjective” and “objective” moral obligation?

Phil 4121s. Philosophy of Language. (Hum; 4 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Traditional and contemporary discussions of philosophical problems such as the nature of language; its relationships to the world, to human thought, and to truth; the nature of logical reasoning; metalogical problems. Readings from philosophers such as Frege, Russell, Quine, Putnam, Goodman, Wittgenstein, and Kripke.

Phil 4130s. Variable Topics in Contemporary Issues in Philosophy. (Hum; 4 cr; repeatable to 8 cr; prereq any 1xxx or 2xxx course except 2101 or #)
Exposure to, and critical examination of, philosophical issues of special contemporary interest. Topics may include the nature of analytic philosophy and its relationship to other philosophical traditions such as continental or feminist philosophy, the debate on realism and anti-realism, the notion of objectivity.

Phil 4901. Senior Philosophical Defense. (2 cr)
Writing and defending a senior philosophical thesis is the culminating experience for UMM philosophy majors. Majors develop a piece of their philosophical writing, producing multiple drafts in response to comments from a variety of philosophical viewpoints, and then orally defend their thesis.

Phil 4993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)
Phil 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”
Physical Education and Athletics (PE)
(See Wellness and Sport Science.)

Physical Science (PSci)
(See Natural Science.)

Physics (Phys)
This discipline is in the Division of Science and Mathematics.

Objectives—The physics program is designed to help students understand the concepts of classical and modern physics while also developing their ability to solve quantitative problems in these areas. It provides the opportunity for students to acquire the skills necessary to perform experimental work. The program develops students’ ability to communicate, in form and content, both verbally and in writing, the results of scientific work.

The physics program offers a background suitable for students planning to pursue graduate study or careers in industry, research, or teaching. It also provides a solid foundation for any career requiring analytical reasoning.

Major Requirements
Phys 1101-1102—General Physics I-II (or advanced placement)
Phys 2101—Modern Physics
Phys 2201—Circuits and Electronic Devices
Phys 3101—Classical Mechanics
Phys 3401—Experimental Physics
Phys 4101— Electromagnetism
Phys 4201—Quantum Mechanics
One additional four credit course numbered Phys 3xxx or 4xxx
Phys 4901—Senior Thesis
Math 1101-1102-2101—Calculus I-II-III
Math 2401—Differential Equations
Required courses may not be taken S-N. The GPA in these courses must be at least 2.50.

Minor Requirements
Phys 1101-1102—General Physics I-II (or advanced placement)
Phys 2101—Modern Physics
an additional 4 credits of Phys 2xxx or Phys 3xxx
Math 1101-1102-2101—Calculus I-II-III
Required courses may not be taken S-N. The GPA in these courses must be at least 2.50.

Teacher Preparation Requirements
Students seeking teaching licensure in physics 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions
Phys 1000. Variable Topics in Physics. (Sci; 2-5 cr; repeatable when topic changes; offered when feasible)
Treatement of topics not included in the regular curriculum. Topics may include but need not be restricted to environmental physics, astrophysics, the history of physics, cosmology.

Phys 1052f. The Solar System. (Sci-L; 5 cr; no cr for students who have received cr for Phys 1051)
History of astronomy; motions of celestial objects; gravity and electromagnetic radiation; the Earth and Moon; the planets and their moons; meteors and asteroids; the Sun; telescopes and other astronomical instruments. Stars and constellations of the fall sky. Night viewing sessions required. (4 hrs lect, 2 hrs lab)

Phys 1053s. Introduction to Stars, Galaxies, and Cosmology. (Sci; 4 cr)
Gravity and electromagnetic radiation; nuclear physics; stellar properties; stellar evolution; galaxies; quasars; and cosmology. Stars and constellations of the winter sky. (4 hrs lect)

Phys 1061f. Physics of Sound and Music. (Sci; 4 cr)
Wave characteristics, sound properties, resonance, the human voice and hearing, basic musical instruments, analysis and synthesis of complex waves, acoustics.

Phys 1091f. Principles of Physics I. (Sci-L; 5 cr; prereq high school higher algebra)
Introduction to physics without the use of calculus. Vectors, kinematics, Newton’s laws of motion, work and energy, momentum, torque, fluids, thermal physics, laws of thermodynamics, oscillations and waves. (4 hrs lect, 2 hrs lab)

Phys 1092s. Principles of Physics II. (Sci-L; 5 cr; prereq 1091)
Coulomb’s law, electric fields, electric potential, capacitance, electric current, resistance, DC circuits, magnetism, induction, reflection and refraction of light, mirrors and lenses, interference and diffraction, optical instruments, radioactivity. (4 hrs lect, 2 hrs lab)

Phys 1101s. General Physics I. (Sci-L; 5 cr; prereq Math 1101 or #)
Vectors, kinematics, laws of motion, circular motion, work-energy theorem, conservation principles, rotational motion, gravitation, simple harmonic oscillations, wave phenomena, fluid mechanics, thermal properties of matter, kinetic theory, laws of thermodynamics. (4 hrs lect and rec; 2 hrs lab)

Phys 1102f. General Physics II. (Sci-L; 5 cr; prereq 1101, Math 1102 or #)
Coulomb’s law, electric field, Gauss’s law, electric potential, capacitance, dielectrics, current, resistance, circuits, magnetic field, Ampere’s law, inductance, Faraday’s law, AC circuits, Maxwell’s equations, electromagnetic waves, nature of light, reflection, refraction, optical instruments, interference, diffraction. (4 hrs lect and rec, 2 hrs lab)

Phys 2101s. Modern Physics. (Sci-L; 5 cr; prereq 1102, Math 2401 or #)
Special relativity, quantum nature of matter and radiation, Bohr-Sommerfeld atom, atomic spectra, uncertainty principle, Schrödinger equation, hydrogen atom, electron spin, Pauli principle, periodic table, radioactivity, fission and fusion of nuclei, properties of nuclei. (4 hrs lect, 2 hrs lab)
Phys 2201s. Circuits and Electronic Devices. (Sci-L; 4 cr; prereq 1102 or #) DC and AC circuits, pulses and Fourier analysis, semiconductor physics, p-n junctions, diodes, transistors, amplifiers, feedback, oscillators, operational amplifiers. (3 hrs lect, 3 hrs lab)

Phys 3000. Variable Advanced Topics in Physics. (Sci; 2-5 cr; repeatable when topic changes; offered when feasible) Treatment of topics not included in the regular curriculum. Topics may include but need not be restricted to astrophysics, electronics, laser physics, physics of fluids, plasma physics, superfluidity and superconductivity, solid state physics, spectra of atoms and molecules.

Phys 3001f. Astrophysics. (Sci; 4 cr; prereq 2101; offered when feasible) Topics may include but need not be restricted to spectroscopy, radiative transfer, solar system evolution and dynamics, stars and stellar evolution, galaxies, and cosmology. (4 hrs lect)

Phys 3101f. Classical Mechanics. (Sci; 4 cr; prereq 2101, Math 2101 or #; not offered 2003-04) Kinematics and dynamics of a particle, oscillations, central-force motion, systems of particles, rigid-body rotations, gravitation, non-inertial coordinate systems, Lagrangian and Hamiltonian formulations, dynamics of rigid bodies. (4 hrs lect)


Phys 3301s. Optics. (Sci-L; 4 cr; prereq 2101; not offered 2004-05) Light as a wave phenomenon, electromagnetic nature of light, Huygen’s principle, interference, diffraction—Fraunhofer and Fresnel, polarization, dispersion, absorption and scattering. (3 hrs lect, 3 hrs lab)

Phys 3401f. Experimental Physics. (Sci-L; 4 cr; prereq 2101) An introduction to modern experimental methods. (3 hrs lect, 3 hrs lab)


Phys 4101f. Electromagnetism. (Sci; 4 cr; prereq 2101, Math 2101 or #; not offered 2004-05) Vector calculus, electrostatics, Laplace and Poisson equations, dielectrics, magnetostatics, magnetic properties of matter, electromagnetic induction, Maxwell’s equations, electrodynamics, electromagnetic waves. (4 hrs lect)

Phys 4201s. Quantum Mechanics. (Sci; 4 cr; prereq 2101, Math 2101) Uncertainty principle, Schrödinger equation, commutation relations, momentum space wave functions, Dirac notation, applications to problems in one dimension and the hydrogen atom, angular momentum. (4 hrs lect)

Phys 4901f. Senior Thesis. (1 cr; prereq sr; course begins in fall and runs all year) Capstone experience in physics. Investigation of a selected topic of current interest in physics. Presentation of results orally and in writing.

Phys 4993, 2993, 3993, 4993. Directed Study. (1-5 cr; repeatable; prereq @) 

Phys 4994. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

**Political Science (Pol)**

This discipline is in the Division of the Social Sciences.

**Objectives**—Students who complete the political science major are able to critically analyze not only the behavior of political actors, but also their respective political institutions and political systems. The main objectives of the political science major are to enable students to use strong analytical skills and critical thinking in their analysis of theories, institutions, and processes in political science. The program prepares students for work in government and private business, and it prepares students for additional training in law and graduate programs.

A political science major is expected to show knowledge of political institutions, behavior, and processes in domestic and/or international settings. Students learn how and why governments are structured, operate, make policy, and manage social conflict. A political science major is expected to demonstrate a critical understanding of the major schools of political thought. Upon completion of the major, students of political science:

1. have the ability to critically analyze, interpret, and synthesize the theories that are prevalent in a major subfield of political science
2. are more empowered to participate in government due to increased familiarity with politics and government
3. are adequately prepared for entrance into graduate or professional school.

**Major Requirements**

Major requirements include a minimum of 36 credits taken within the political science discipline, as well as either Stat 1601 or Stat 2601. Courses taken within political science must include:

Pol 1101—Introduction to Political Science

Political science majors must complete all of the requirements in at least one of the following subfields:

**Subfield I: American Politics**

Pol 1201—American Government and Politics
12 upper division credits in the American politics subfield (Pol 32xx or 42xx)

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**Division Structure and Course Descriptions**
Political Science

8 upper division credits in political theory (Pol 33xx or 43xx), international relations (Pol 34xx or 44xx), and/or comparative politics (Pol 35xx or 45xx)
4 additional elective credits in Pol 3xx or 4xxx courses (Pol 4901 not eligible)

Pol 4901—Senior Research Seminar in American Government

Subfield II: International Relations and Comparative Politics

Pol 1301—Comparative Politics
or Pol 1401—World Politics
12 upper division credits in the international relations and comparative politics subfield (Pol 34xx, Pol 35xx, 44xx, 45xx)
8 upper division credits in American politics (Pol 32xx or 42xx) and/or political theory (Pol 33xx or 43xx)
4 additional elective credits in Pol 3xx or 4xxx courses (Pol 4902 not eligible)

Pol 4902—Senior Research Seminar in International Relations and Comparative Politics

Subfield III: Political Theory

12 upper division credits in the political theory subfield (Pol 33xx or 43xx)
8 upper division credits in American politics (Pol 32xx or 42xx), international relations (Pol 34xx or 44xx), and/or comparative politics (Pol 35xx or 45xx)
8 additional elective credits in Pol 3xx or 4xxx courses (Pol 4903 not eligible)

Pol 4903—Senior Research Seminar in Political Theory

Courses with grades of D may not be used to meet the major requirements.

Students are strongly encouraged to take lower division courses in each of the four subfields. In addition, the political science discipline strongly recommends that students take advantage of opportunities in internships, field studies, and study abroad.

Minor Requirements

The political science minor requires at least 20 political science credits. Minors must complete: Pol 1101—Introduction to Political Science at least 8 upper division Pol 3xxx or 4xxx credits

Courses with grades of D may not be used to meet the minor requirements.

Teacher Preparation Requirements

Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

Pol 1101f. Introduction to Political Science. (E/CR; 4 cr)
Origins and development of politics and government. Survey of contemporary political institutions and behavior. Major perennial questions are investigated at length and in depth. Critical thinking and class discussion provide the focus of the course.

Pol 1201f.s. American Government and Politics. (E/CR; 4 cr)
Analysis of principles, organization, procedures, and powers of government in the United States. The federal system, national constitution, civil and political rights, party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments of the national government.

Pol 1301s. Comparative Politics. (IP; 4 cr)
Examines the nature of political authority, experience of social revolution, and achievement of economic transformation in the context of politics and government in selected countries around the world.

Pol 1401f. World Politics. (IP; 4 cr)
The contemporary international system, including nationalism, international political economy, foreign policy formulation, and global concerns such as the environment and conflict. North/South debate, definitions of power, the new world order, regional vs. global conflicts, and avenues of cooperation.

Pol 3101s. Political Science Analysis. (SS; 4 cr; prereq Stat 1601 or Stat 2601 or #; not offered 2004-05)
Techniques commonly used in the systematic study of politics. Application of statistical techniques to recently released data using statistical software. Topics include the use of multivariate regression in political science and/or logistic regression, survey methodology, experimental design, and game theory.

Pol 3231s. Constitutional Law: Civil Liberties and Civil Rights. (HDiv; 4 cr; prereq 1201 or #; not offered 2004-05)
Examination of major Supreme Court opinions in the areas of freedom of religion, speech, assembly, and the press. Topics include the definitions of obscenity and libel, the Court’s struggle with the right to privacy, and civil rights.

Pol 3232s. Constitutional Law: Governmental Powers and Constraints. (SS; 4 cr; prereq 1201 or #; not offered 2003-04)
Examination of major Supreme Court opinions in the areas of congressional, executive, and judicial authority; nation-state relations; and economic liberties. Topics include substantive vs. procedural due process, the Takings Clause, the contract clause, and the powers to tax and spend.

Pol 3251f. Political Participation and Voting Behavior. (SS; 4 cr; prereq 1201 or #; not offered 2003-04)
This course provides a broad overview of factors influencing the political behavior of groups and individuals both within and outside institutions. Particular emphasis is placed on examining issues such as voter turnout, economic influences on voting patterns, and social movement mobilization.

Pol 3261s. State and Local Politics. (SS; 4 cr; prereq 1201 or #; not offered 2004-05)
This course examines theoretical discussions of American democracy in the context of the actual performance of American government and society on a variety of levels. Particular emphasis is placed on the ways American democracy functions on the subnational level in states, rural communities, and urban centers. Analysis of principles, organizations, procedures, and functions of state and local government, both urban and rural, in the United States.

Pol 3262f. Minorities and Public Policy. (HDiv; 4 cr; prereq 1201 or #; not offered 2004-05)
Analysis of the ways race, ethnicity, and other factors shape political engagement; their implications for public policy and the policy process.
Division Structure and Course Descriptions

Pol 3263f. Political Psychology. (SS; 4 cr; prereq 1201; Psy 1051 or # recommended; not offered 2003-04)
Examines the utility of concepts from personality and social psychology for conducting political analysis and understanding political behavior. Explores the role of the individual, group processes, and the political context in political decision making by both leaders and non-leaders.

Pol 3351f. Political Thought: Ancient and Middle Ages. (Hum; 4 cr; prereq 1101 or #)
Survey of classical Greek thought, Plato and Aristotle, primitive natural law, Cynics and Stoics, theory in Roman Republic and Empire, early Christianity and the church fathers, moral theory and political theory, empire and church in ideology, Roman and canon law, St. Thomas, political thought in the 14th and 15th centuries.

Pol 3352s. Political Thought: Modern. (Hum; 4 cr; prereq 1101 or #)
Machiavelli: theories during the Renaissance, Reformation, and Counter-Reformation. Early modern absolutism, the emergence of modern contract theory, constitutionalism, liberalism, and utopianism.

Pol 3353s. American Political Thought. (Hum; 4 cr; prereq 1101 or #: not offered 2003-04)
Development of the American political tradition from the Puritan theocracy to recent phases of American political life.

Pol 3401f. U.S. Foreign Policy. (SS; 4 cr; prereq 1401 or #)
Institutions and processes of American foreign policy. Major factors to be considered and levels of analysis that allow for the examination and dissection of foreign policy decisions. Case study analysis, e.g., Cuban Missile Crisis, Vietnam, Iran/Contra-gate.

Pol 3411s. International Law. (E/CR; 4 cr; prereq 1401 or #: not offered 2004-05)
Relations of international law to individuals, states, the international community, jurisdictional problems, survey of principles developed by diplomatic agents and consuls, treaties, arbitration, treatment of aliens, pacific settlement. War and hostile measures short of war, military occupation, war crimes, neutrality, collective security sanctions.

Pol 3421s. International Organizations. (E/CR; 4 cr; prereq 1401 or #: not offered 2003-04)
Origins of diplomacy and its role in maintaining communication among nations, including the recent and special role of international organizations. History of the practice of diplomacy, current bilateral diplomatic practices, and multilateral interactions as practiced through the United Nations and the League of Nations before it. Structure and functional agencies of the U.N. and role in international peacekeeping or collective security.

Pol 3453s. Russian Politics and Foreign Policy. (IP; 4 cr; prereq 1401 or #: not offered 2003-04)
Domestic and foreign policies of the former Soviet Union from the Bolshevik Revolution to the present. Nature of the Soviet empire, imposition of the Soviet Union, Russian Federalism, democratic and market reforms, ethnic conflicts, nuclear strategy, military policy, and diplomatic style.

Pol 3502f. Government and Politics of Europe. (SS; 4 cr; prereq 1301 or #: not offered 2003-04)
The comparative study of contemporary government/policies in Europe. Emphasizes influence of economic, cultural, and other factors. Parties, bureaucracy, legislatures, executives: way in which they reflect and contribute to political life.

Pol 3504s. Latin American Politics. (IP; 4 cr; prereq 1301 or #)
A comparative examination of central issues in and components of Latin American political life, including economic development, regimes and alliances, guerrilla wars, the armed forces, human rights, and democratic consolidation. Countries may include Argentina, Brazil, Chile, Colombia, El Salvador, and Cuba.

Pol 3505f. Military and Political Development. (IP; 4 cr; prereq 1301 or #)
Explores military intervention in government and the influence of the military on social and economic policies in a variety of regions.

Pol 3506f. Government and Politics of Africa. (IP; 4 cr; prereq 1301 or #)
Comparative study of government and politics of contemporary Africa, with special attention to state/society relations, interaction of politics and economic development, political institutions, and conflict.

Pol 3996s. Field Study in Political Science. (1-16 cr; repeatable; max of 4 cr may be applied to the major or minor; prereq #: offered when feasible)
Field study of governmental organization; internship with legislature, a state or local administrative office, lobbying group, or other position involving direct experience with government, governmental officials, or political organizations and environment.

Pol 4201f. Legislative Process. (SS; 4 cr; prereq 1201 or #: Stat 1601 or 2601 recommended)
The internal organization of Congress, with emphasis on how rules and organizational changes affect the policy process. Topics include the evolution of the modern Congress, the committee system, the role of party leadership, and competing theories of congressional organization. In addition, comparisons/contrasts are drawn from other legislatures in democracies around the world.

Pol 4211s. The American Presidency. (SS; 4 cr; prereq 1201 or #: Stat 1601 or 2601 recommended; not offered 2003-04)
Traces the development of the American presidency over time. Major theories of presidential behavior and success are examined, as well as the literature on presidential popularity and executive/congressional relations.

Pol 4221f. Judicial Politics. (SS; 4 cr; prereq 1201 or #: Stat 1601 or 2601 recommended; not offered 2004-05)
Role of judges, police, attorneys, and interest groups within the political system, with analysis focusing on each as political actors. Areas of discretion in the legal system. Extra-legal predictors of judicial decision making and certiorari voting.

Pol 4264s. American Political Culture. (Hist; 4 cr; prereq 1201 or #: not offered 2003-04)
A survey of the ideas shaping the U.S. political system and Americans’ political behavior. Examines the ways that U.S. political culture has shaped institutional development, policy outcomes, and the everyday political experiences within the political system.

Pol 4264Hs. Honors: American Political Culture. (Hist; 4 cr; prereq 1201 or #: participation in Honors Program or #: not offered 2003-04)
Same as Pol 3264. A survey of the ideas shaping the U.S. political system and Americans’ political behavior. Examines the ways that U.S. political culture has shaped institutional development, policy outcomes, and the everyday political experiences within the political system.
Guided research in political theory. With the assistance of a faculty member, each student develops a research design to identify and address an important problem in the political theory literature, conducts a literature review, critically analyzes the material, summarizes the work in the form of a significant research paper, and makes an oral presentation of the work to the discipline faculty and graduating seniors.

**Pol 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study.** 
(1-5 cr; repeatable; prereq pol sci major or @) Individual research topics; normally restricted to political science majors.

**Pol 4994f,s. Senior Honors Project.** 
(1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

### Continuing Education Courses

**Pol 3267. CE: Courtroom Proceedings in American State and Federal Courts.** 
(55; 4 cr; prereq 1201 or #; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement; offered when feasible) Understanding courtroom procedure by observation of actual courtroom activity. Observation of a wide range of judicial proceedings, including arraignments, trials, sentencing, involuntary commitments to mental and alcohol treatment facilities, and the acceptance of negotiated settlements and/or plea-bargains. Observation of state and federal courts at both the trial and appellate level.

### Psychology (Psy)

This discipline is in the Division of the Social Sciences. The psychology curriculum focuses on understanding scientific methods and applying them to the problems of the behavioral sciences and individual and social human behavior. It provides students with basic methodological skills, practice in applying these skills, and an introduction to core areas of psychology. The courses meet the needs of liberal arts students as well as students planning to specialize in one of the fields of psychology at the graduate level.

**Objectives**—(1) Awareness of the range of knowledge in psychology; (2) competency in translating behavioral questions into the terms of scientific inquiry; (3) competency in reading and critically synthesizing the technical literature in psychology; (4) competency in quantifying and statistically analyzing behavior; (5) awareness of ethical issues in psychology.

### Major Requirements

**Psy 1051—Introduction to Psychology**  
**Psy 2001—Research Methods in Psychology**  
**Stat 1601—Introduction to Statistics**  
**or Stat 2601—Statistical Methods**  
**IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services**
At least one course from:
- Psy 3101—Learning Theory and Behavior Modification
- Psy 3111—Sensation and Perception
- Psy 3112—Cognition
- Psy 3201—Comparative Psychology
- Psy 3211—Biological Psychology

20 additional credits in Psy 3xxx or 4xxx courses

or Mgmt 3151—Human Resources Management I

or Pol 3263—Political Psychology

at least 14 credits of which must be earned in courses other than:
- Psy 4101—Helping Relationships
- Psy 4896—Field Experiences In Psychology

and which must include an approved empirical research project of at least 4 credits or its equivalent. The approved research project is normally completed in one of the empirical investigations sequences:
- Psy 4610-4710—Empirical Investigations in Cognitive Psychology I-II
- Psy 4620-4720—Empirical Investigations in Biological Psychology I-II
- Psy 4630-4730—Empirical Investigations in Personality, Psychopathology, and Psychological Intervention I-II
- Psy 4640-4740—Empirical Investigations in Developmental Psychology I-II
- Psy 4650-4750—Empirical Investigations in Social and Organizational Psychology I-II
- Psy 4660-4760—Empirical Investigations in Health Psychology I-II

or with an approved senior honors project (Psy 4994—Senior Honors Project)

Courses with grades of D may not be used to meet the major requirements.

Required courses may not be taken S-N unless offered S-N only.

Minor Requirements
- Psy 1051—Introduction to Psychology
- Psy 2001—Research Methods in Psychology
- Stat 1601—Introduction to Statistics
- Stat 2601—Statistical Methods
- IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services

At least one course from:
- Psy 3101—Learning Theory and Behavior Modification
- Psy 3111—Sensation and Perception
- Psy 3112—Cognition
- Psy 3201—Comparative Psychology
- Psy 3211—Biological Psychology

10 additional credits in Psy 3xxx or 4xxx courses

at least 6 credits of which must be earned in courses other than:
- Psy 4101—Helping Relationships
- Psy 4896—Field Experiences In Psychology

Courses with grades of D may not be used to meet the minor requirements.

Teacher Preparation Requirements

Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

Psy 1051f. Introduction to Psychology. (SS; 4 cr)
An introduction to the science of mind and behavior. Topics include history of psychology, research methods, biological bases for behavior, life span development, sensation and perception, learning, cognitive and social processes, personality, psychopathology, and applications of psychology. Includes laboratory/discussion sessions.

Psy 1061fs. Introduction to the Development of the Child and Adolescent. (SS; 4 cr; prereq 1051 or #)
Theory, data, and research approaches in development from birth through adolescence. Prenatal and physical development as well as perceptual, cognitive, language, personality, and social development. Multicultural/global perspective. Designed for students aiming for teacher certification, who receive priority in registration. Does not count for elective credit for the 16-credit psychology component of the LAHS major or for the psychology major or minor. Does count toward the 8-credit “other” category for the LAHS major. A more in-depth alternative to this course is Psy 3401 and Psy 3402. Students double majoring in education and psychology should consider the Psy 3401 and 3402 alternative to this course.

Psy 1071f. Human Sexuality. (SS; 4 cr)
Survey of aspects of human sexuality, including intimacy and communication; male and female anatomy, physiology, and response; development of identity, sex role, and gender orientation; varieties of sexual expression; pregnancy and childbirth; contraception and disease prevention; sexual coercion and abuse; sexual dysfunctions and their treatment.

Psy 1081s. Drugs and Human Behavior. (SS; 2 cr)
Survey of psychoactive drugs, their effects on mind and behavior, and prevention and treatment of drug abuse.

Psy 1102f. Research Methods in Psychology II. (SS; 4 cr; prereq Stat 1601 or 2601; offered fall 2003 only)
Complex human behavior and development: development across the life span, social psychology, emotion and motivation, personality, psychopathology, psychology of health, and psychological interventions. Includes research methods and lab. Designed for psychology majors, minors, and others intending concentrated study in psychology.

Psy 2001f. Research Methods in Psychology. (SS; 4 cr; prereq 1051, Stat 1601 or 2601 or #; not offered fall 2003)
Design, analysis, and interpretation of research in psychology. Instruction on different research techniques and ethics in research. Students conduct, analyze, and evaluate empirical research and gain experience preparing APA-style research reports. Includes laboratory/discussion sessions.
Psy 3051s. The Psychology of Women. (HDiv; 4 cr; prereq 1051)
Feminist approach to the psychological study of women’s personality, behavior, development, language issues, motivation, work and family lives, sexuality, health and psychobiology, adjustment and therapy, and victimization experiences. Focuses on women of color, feminist research methodology, and feminist analysis of psychological theories of women.

Psy 3101f. Learning Theory and Behavior Modification. (SS; 4 cr; prereq 2001 or #)
Major theories of learning and their importance for understanding human and nonhuman behavior. Classical and operant conditioning, generalization, discrimination, stimulus control, animal cognition. Behavior modification theories and techniques and their application to clinical populations. Lab projects demonstrate learning and behavior modification theories, concepts, and techniques and illustrate research methods and theory testing. Includes lab.

Psy 3111f. Sensation and Perception. (SS; 4 cr; prereq 2001 or #)
Empirical study of sensory processes and perceptual organization with emphasis on vision and audition. Anatomy and physiology of sense organs, psychophysics, signal detection theory, attention, speech perception, and perceptual-motor coordination. Includes lab.

Psy 3112s. Cognition. (SS; 4 cr; prereq 2001 or #)
Empirical study of memory, language behaviors, representation of knowledge, judgment, decision making, problem solving, and creative thinking. Includes lab.

Psy 3201s. Comparative Psychology. (Sci-L; 4 cr; prereq 1051, 2001 or Biol 2111)
Phylogenetic comparison of animal behavior emphasizing mechanisms of adaptation. Mechanisms of speciation, behavior genetics, evolution and ontogeny of the central nervous system, ethological determinants of behavior and learning. Includes lab.

Psy 3211f. Biological Psychology. (Sci-L; 5 cr; prereq 1051 and 2001 or Biol 1101)
Brain organization and function; an emphasis on an understanding of the neural processes that underlie human and nonhuman behavior. Incorporates information from psychology, neuroscience, endocrinology, physiology, chemistry, neurology, and zoology to investigate the physiological basis of behavior. Topics include sensory processes, drugs and addiction, biological rhythms, sexual differentiation, reproduction, methods in neuroscience, neuropsychological disorders, and clinical assessment. Lab projects focus on neuroanatomical organization and function of the brain. (4 hrs lect, 1 hr lab)

Psy 3221s. Behavioral Biology of Women. (Sci; 2 cr; prereq 3211 or Biol 2111 or #; offered when feasible)
Exploration of proximate and ultimate influences on female behavior in human and nonhuman species. Sexual differentiation, gender differences in cognition, biological basis of sexual orientation, female sexual selection, and dominance.

Psy 3221f. Honors: Behavioral Biology of Women. (Sci; 2 cr; prereq 3211 or Biol 2111, participation in Honors Program or #; offered when feasible)
Same as 3221. Exploration of proximate and ultimate influences on female behavior in human and nonhuman species. Sexual differentiation, gender differences in cognition, biological basis of sexual orientation, female sexual selection, and dominance.

Psy 3302f. Personality. (SS; 4 cr; prereq 1051, Stat 1601 or 2601 or #)
Nature of personality constructs and theories. Conscious vs. nonconscious processes; emotion and motivation; nature and measurement of personal traits; their dimensional structure, stability, development, and heritability.

Psy 3313s. Psychopathology. (SS; 4 cr; prereq 3301 or 3311 or 3302, Stat 1601 or 2601)
Psychological disorders and their treatment, including anxiety, personality, affective, schizophrenic, and other recognized disorders of children and adults.

Psy 3401f. Developmental Psychology I: Child Psychology. (SS; 4 cr; prereq 1051 or #)
Theory, data, and research in development from conception to adolescence. Prenatal and physical development as well as perceptual, cognitive, personality, and social development. Language acquisition and Piaget’s theory of cognitive development.

Psy 3402s. Developmental Psychology II: Adolescence. (SS; 4 cr; prereq 1051, 3401 or 1061 or #)
Theory, data, and research in adolescent development with emphasis on physical, cognitive, and social development.

Psy 3403f. Developmental Psychology III: Adulthood, Aging, and Death. (SS; 4 cr; prereq 3301 or 3311 or 3401 or #)
An overview of current concepts, theories, and methods in the study of adult development and aging. Emphasis on individual physical, cognitive, and social-psychological development, with historical, sociological, and anthropological perspectives where appropriate. Combines chronological and topical approaches, covering the generally acknowledged phases of adult life (young adulthood, middle age, and later life) as well as specific developmental topics, including biological development, cognitive/intellectual development and decline, personality development, relationships, marriage, family, careers, and end-of-life issues.

Psy 3501f. Social Psychology. (SS; 4 cr; prereq 1051 or Soc 1101 or #)
Theories and research in the study of interpersonal behavior. Topics include aggression, prejudice, altruism, persuasion, group dynamics, and social influence.

Psy 3512s. Group Dynamics. (SS; 2 cr; prereq 3501 or Mgmt 3221 or Psy/Mgmt 3701)
Same as Mgmt 3512. Uses the behavioral sciences to take an applied and theoretical perspective on group dynamics. Topics include teams, teams versus groups, group decision making, group performance, group structure, and group socialization.

Psy 3513s. Negotiation. (SS; 2 cr; prereq 3501 or Mgmt 3221 or Psy/Mgmt 3701)
Same as Mgmt 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, and ethics. Use of negotiation simulations.

Psy 3521s. Health Psychology. (SS; 4 cr; prereq 1051)
Health implications of interactions among behavioral, environmental, and physiological states. Physiological bases of behavior and health; stress and coping; behavioral antecedents of disease; psychoneuro-immunology; disease prevention and health promotion.
Divisions & Courses

Descriptive Text:

Psy 3601f. Quantitative Methods in Psychology. (M/SR; 4 cr; prereq 1051, [Stat 1601 or 2601] or #) Intermediate course in research design and data analysis. Analysis of variance, regression and correlation, non-parametric methods, use of microcomputer statistical packages.

Psy 3611s. History and Philosophy of Psychology. (Hist; 2 cr; prereq 1051) Historical roots and comparative features of major theoretical systems in psychology, including their viewpoints on scientific methodology, research interests, and techniques. Component variables, hypotheses, and laws of structural, functional, behavioristic, Gestalt, psychoanalytic, and existentialist movements and their modern syntheses.

Psy 3701. Organizational Behavior. (SS; 4 cr; prereq jr or sr) Same as Mgmt 3701. Uses the theories and research of the behavioral sciences to understand how organizations function at the individual, group, and organizational levels. Topics include stress in the workplace; group dynamics; power, leadership, and attribution theory.

Psy 4101f.s. Helping Relationships. (SS; 4 cr; prereq 3302) Approaches to counseling and psychotherapy. Theories of helping relationships. Acquisition of helping skills, including attending behavior, reflection of feeling, paraphrasing, confrontation, and summarization. Major humanistic, cognitive, and behavioral approaches. Didactic instruction, observation of counseling and psychotherapeutic techniques, and practical experiences.

Psy 4610f. Empirical Investigations in Cognitive Psychology I. (SS; 2 cr; repeatable; prereq 2001, [3111 or 3112], #; no cr for 4610 until 4710 completed) Empirical investigations by students in any area of cognitive psychology, including sensation and perception, as well as related areas. Includes lab. First half of a series; students must enroll in Psy 4710 to complete the project.

Psy 4620f. Empirical Investigations in Biological Psychology I. (SS; 2 cr; repeatable; prereq 2001, 3211, #; no cr for 4620 until 4720 completed) Empirical investigations by students in any area covered by biological psychology, as well as related areas. Includes lab. First half of a series; students must enroll in Psy 4720 to complete the project.

Psy 4630f. Empirical Investigations in Personality, Psychopathology, and Psychological Intervention I. (SS; 2 cr; repeatable; prereq 2001, 3302, #; no cr for 4630 until 4730 completed) Empirical investigations in human emotion, motivation, individual differences, psychopathology, and psychological intervention. Includes lab. First half of a series; students must enroll in Psy 4730 to complete the project.

Psy 4640f. Empirical Investigations in Developmental Psychology I. (SS; 2 cr; repeatable; prereq 2001, [3401 or 3402 or 3403], #; no cr for 4640 until 4740 completed) Individual reading and empirical research on any topic. Objective is greater depth than is possible in Psy 3401, 3402, 3403 and demonstration of research competency. Includes lab. First half of a series; students must enroll in Psy 4740 to complete the project.

Psy 4650f. Empirical Investigations in Social and Organizational Psychology I. (SS; 2 cr; repeatable; prereq 2001, [3501 or 3701], #; no cr for 4650 until 4750 completed) Seminar instruction on topics of student and staff interests. Students complete an empirical project and paper. Includes lab. First half of a series; students must enroll in Psy 4750 to complete the project.

Psy 4660f.s. Empirical Investigations in Health Psychology I. (SS; 2 cr; repeatable; prereq 2001, [3501 or 3521], #; no cr for 4660 until 4760 completed) Seminar instruction on topics of student and staff interests. Students complete an empirical project and paper. Includes lab. First half of a series; students must enroll in Psy 4760 to complete the project.

Psy 4710f.s. Empirical Investigations in Cognitive Psychology II. (SS; 2 cr; repeatable; prereq 4610, #) Continuation of Psy 4610. Psy 4710 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4610, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4610 and 4710 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4720f.s. Empirical Investigations in Biological Psychology II. (SS; 2 cr; repeatable; prereq 3211, 4620, #) Continuation of Psy 4620. Psy 4720 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4620, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4620 and 4720 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4730f.s. Empirical Investigations in Personality, Psychopathology, and Psychological Intervention II. (SS; 2 cr; repeatable; prereq 4630, #) Continuation of Psy 4630. Psy 4730 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4630, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4630 and 4730 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4740f.s. Empirical Investigations in Developmental Psychology II. (SS; 2 cr; repeatable; prereq 4640, #) Continuation of Psy 4640. Psy 4740 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4640, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4640 and 4740 may be taken concurrently. It is recommended that students begin the series in the fall term.

Psy 4750f.s. Empirical Investigations in Social and Organizational Psychology II. (SS; 2 cr; repeatable; prereq 4650, 4650, #) Continuation of Psy 4650. Psy 4750 is required for completion of the project. Students collect and analyze data, as appropriate to the project developed in Psy 4650, and complete an APA-style research report. Includes lab and paper. Most projects are completed over two semesters, although with instructor permission Psy 4650 and 4750 may be taken concurrently. It is recommended that students begin the series in the fall term.
Russian (Russ)

This discipline is in the Division of the Humanities. The purpose of the Russian curriculum is to introduce students to the language and culture of the Russian people. The program is designed to promote a global perspective by encouraging students to examine another culture primarily, but not exclusively, through its language. The introductory course satisfies the foreign language requirement.

Objectives—Students develop at an introductory level a number of skills in Russian: speaking, reading, listening, and writing. They gain an awareness of the structure of languages and an elementary facility with the Russian idiom.

Study Abroad

In light of today’s increasingly interdependent world, the UMM Russian faculty endorses study abroad as the most effective means by which to:

• Improve language abilities
• Broaden academic horizons
• Globalize one’s world view
• Expand career opportunities
• Advance cross-cultural and problem-solving skills
• Gain confidence in oneself personally and professionally.

Course Descriptions

Russ 1001f. Beginning Russian I. (FL; 4 cr; offered when feasible)

Introduction to Russian as it is spoken and written presently. The course acquaints students with the basic sounds and vocabulary of Russian and enables them to understand, read, and write the language and to communicate in Russian about everyday situations. It makes them aware of the relationship between culture and language.

Russ 1002s. Beginning Russian II. (FL; 4 cr; prereq 1001 or placement or #; offered when feasible)

Continuation of 1001.

Secondary Education

(See Education, Secondary.)

Social Science Major

This interdisciplinary major is in the Division of the Social Sciences.

Objectives—Students will understand how each social science discipline structures and advances knowledge, raises and answers analytical questions, and deals with competing theories and the changing nature of the field. Students develop an area of focus in a single discipline or an interdisciplinary social science area within the major.

Advising and Evaluation—Students work closely with their advisers to plan a program that satisfies the required competencies in a chosen area of focus and in the social science disciplines. Program plans must be on file with the Social Sciences Division Office by the completion of a student’s junior year.

Program—While the programs of individual students may vary, based upon arrangements approved by the divisional committee for the social science major, the minimum competencies required for each discipline normally may be achieved by completion of the following courses:

Anth 1111—Introductory Cultural Anthropology
Econ 1112—Principles of Macroeconomics
Econ 1951—Seminar for Social Science Majors
Geog 1001—Problems in Geography
Hist 1301—Introduction to United States History
Pol 1201—American Government and Politics
Psy 1051—Introduction to Psychology
Soc 1101—Introductory Sociology
Stat 1601—Introduction to Statistics or equivalent proficiency in statistics approved by the divisional committee for the social science major

The area of focus most often is demonstrated by completing the minor in that discipline. Area of focus plans should be on file with the Social Sciences Division Office by the end of a student’s junior year. Individual plans can be devised, but
the total number of introductory and upper-level credits will be similar to that found among minors in the Social Sciences:

**Anthropology**—in addition to Anth 1111, the area of focus includes Anth 2101, Anth 3411, and 12 additional credits in Anth or Soc at 2xxx or above.

**Economics**—in addition to Econ 1112 and 1951, the area of focus includes Econ 1111, 3201, 3202 and 6 additional credits in Econ at 3xxx or above. No more than 4 credits from each of Econ x993 or Econ 490x can be applied to the area of focus.

**History**—in addition to Hist 1301, the area of focus includes Hist 1101 or 1102 and four additional courses of which at least three are at 2xxx or higher. There should be evidence of work in at least two different geographic areas.

**Management**—in addition to Econ 1112, the area of focus includes Econ 1111, Mgmt 2101, 2102, 10 additional credits in Mgmt courses at 3xxx or above. No more than 4 credits from each of Econ 490x or Mgmt x993 can be applied to the area of focus.

**Political Science**—in addition to Pol 1201, the area of focus includes Pol 1101 and 16 additional credits in Pol, at least 8 of which need to be at 3xxx or higher.

**Psychology**—in addition to Psy 1051, the area of focus includes Psy 2001 and 14 additional credits in Psy at 3xxx or higher, 4 credits of which need to be from Psy 3101, 3111, 3112, 3201, or 3211. Students not enrolled in the secondary education program must also complete IS 4101.

**Sociology**—in addition to Soc 1101, the area of focus includes Soc 3101, either Soc 3401 or 3402, and 12 more credits in Soc. Soc 4991 is highly recommended.

**Women’s Studies**—the area of focus requires WoSt 1101, 1111 and a minimum of 12 credits, selected from at least three disciplines, from the courses listed under the Women’s Studies major.

**Teacher Preparation Requirements**

Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

**Course Descriptions**

**Anth 1111f,s. Introductory Cultural Anthropology.** (SS; 4 cr)

Varieties and range of human behavior as revealed through the comparative study of cultures throughout the world. Concepts developed by anthropologists to explain both the unity and diversity of humankind.

**Econ 1112f,s. Principles of Macroeconomics.** (SS; 4 cr; prereq high school algebra or #)

Introduction to basic economic problems, concepts, and theoretical models. U.S. economic institutions and the economic organization of society. The role of markets in the production and distribution of societal resources. Measurement of economic performance: national income, inflation and unemployment; competing macroeconomic theories and stabilization policies.

**Econ 1951f,s. Seminar for Social Science Majors.** (1 cr; prereq 1111, 1112; no cr for students who are concurrently enrolled in or have received cr for 3xxx Econ courses; S-N only)

Familiarization with various journals, periodicals, and sources of statistical information that deal with current developments in economics.

**Geog 1001s. Problems in Geography.** (Envt; 4 cr; offered when feasible)

Basic concepts and questions of geography. The terminology of geography; some modern trends in geography; interpretation of geographical data; select problems of human, physical, economic, and cultural geography.

**Hist 1301f. Introduction to U.S. History.** (Hist; 4 cr)

Methods, themes, and problems in the study of the history of the United States.

**Pol 1201f,s. American Government and Politics.** (E/CR; 4 cr)

Analysis of principles, organization, procedures, and powers of government in the United States. The federal system, national constitution, civil and political rights, party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments of the national government.

**Psy 1051f. Introduction to Psychology.** (SS; 4 cr)

An introduction to the science of mind and behavior. Topics include history of psychology, research methods, biological bases for behavior, life span development, sensation and perception, learning, cognitive and social processes, personality, psychopathology, and applications of psychology. Includes laboratory/discussion sessions.

**Soc 1101f,s. Introductory Sociology.** (SS; 4 cr)

Basic concepts, theories, and methods of sociology; survey of some of the institutional areas in which sociologists specialize.

**Stat 1601f. Introduction to Statistics.** (M/SR; 4 cr; prereq high school higher algebra)

Scope, nature, tools, language, and interpretation of elementary statistics. Descriptive statistics; graphical and numerical representation of information; measures of location, dispersion, position, and dependence; exploratory data analysis. Elementary probability theory, discrete and continuous probability models. Inferential statistics, point and interval estimation, tests of statistical hypotheses. Inferences involving one and two populations, ANOVA, regression analysis, and chi-squared tests; use of statistical computer packages.

**Sociology (Soc)**

This discipline is in the Division of the Social Sciences.

**Objectives**—The sociology curriculum (with support from anthropology courses) is designed to acquaint students with the concerns, theories, and methods of the science that deals with groups, culture, and interpersonal relations of human beings. In addition to an introduction to sociology as a science, an effort is made to relate human values broadly to the theories, methods, and data of sociology. The courses are designed to meet the needs of liberal arts students as well as students preparing for graduate school.
Major Requirements
A minimum of 36 credits in sociology and anthropology, 28 of which must be in 2xxx, 3xxx, and 4xxx courses and which must include:
- Soc 1101—Introductory Sociology
- Soc 3101—Research Methodology I
- Soc 4991—Independent Project Seminar
One course from:
- Soc 3401—Classical Sociological Theory
- Soc 3402—Contemporary Sociological Theory
Stat 1601—Introduction to Statistics is strongly recommended

Students develop a coherent program of study in consultation with their major adviser generally no later than the spring semester of their sophomore year. Up to 4 credits of coursework with a grade of D may be used to meet the major requirements if offset by an equivalent number of credits of A or B.

Minor Requirements
A minimum of 6 courses (24 credits), including:
- Soc 1101—Introductory Sociology
- Soc 3101—Research Methodology I
  Either Soc 3401—Classical Sociological Theory
  Or Soc 3402—Contemporary Sociological Theory
- Three electives
- Soc 4991—Independent Project Seminar is highly recommended

Teacher Preparation Requirements
Students seeking teaching licensure in social studies 5-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions
Note: Soc 2301, 2302, 2302H, 2451, 2452, 3300, and 3411 may also be taken for credit in Anthropology.

Soc 1101f.s. Introductory Sociology. (SS; 4 cr)
Basic concepts, theories, and methods of sociology; survey of some of the institutional areas in which sociologists specialize.

Soc 2101f. Systems of Oppression. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Patterns of group dominance, exploitation, and hate in the United States and globally. Emphasis on sexism, racism, and classism with some attention to other systems of oppression such as heterosexism, ageism, and ableism.

Soc 2301f. Social Change and Development in Latin America. (IP; 4 cr; prereq 1101 or Anth 1111 or #)
Soc 2302s. Women in Latin America. (IP; 4 cr; prereq 1101 or Anth 1111 or #)
Soc 2302Hs. Honors: Women in Latin America. (IP; 4 cr; prereq 1101 or Anth 1111, participation in Honors Program or #) Same as Anth 2302H. In addition to regular course work, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

Soc 2451s. Contemporary Native Americans. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Same as Anth 2451. The cultures, problems, and resurgence of Native Americans in the 20th and 21st centuries. Government policies; education, religion, self-determination, family, gaming, etc.

Soc 2452s. Native American Women. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Same as Anth 2452. The role of Indian and mixed-blood women in a variety of North American Indian cultures, both traditional and contemporary, using ethnography, autobiography, life history, biography, and fiction. The interaction of Indian women and their cultures with the colonizing cultures of Western Europe and the United States.

Soc 3101f. Research Methodology I. (4 cr; prereq 1101)
Introduction to research procedures used in sociology, including sociological statistics. Overview of both quantitative and qualitative techniques in context of professional sociological research and student research design. Development of research design. Questions of validity and reliability examined in the context of professional sociological research and student research design.

Soc 3102s. Research Methodology II. (4 cr; prereq 3101)
Practical issues in sociological research: quantitative research project design, execution, and analysis, reporting and presentation; SPSS data analysis.

Soc 3111s. Sociology of Modernization. (IP; 4 cr; prereq 1101 or Anth 1111 or #)
Process of modernization in non-Western societies. Social, economic, and political impact of modernization from different theoretical perspectives. Assessment of those theoretical perspectives as a means to understand dynamics of change in Third World countries.

Soc 3121s. Sociology of Gender. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Relationships among sex, gender, and society. Gender as a factor in stratification systems, social interaction, and institutions such as the economy, the family, and religion.

Soc 3131f. World Population. (Env; 4 cr; prereq 1101 or #)
Population theory and demographic method. Dynamics of fertility and mortality as the basis of population forecasting and its policy implications. Emphasis on the tie between Third World demographic trends and population issues in the rest of the world.

Soc 3141f. Sociology of Deviance. (E/CR; 4 cr; prereq 4 cr in Soc or #)
Theoretical and empirical issues recurring in the sociological literature on deviant behavior.

Soc 3200. Variable Topics in Social Stratification. (HDiv; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #; offered when feasible)
Hierarchies of power, wealth, and prestige: analysis of various theories of stratification. Class, status, race, minorities (e.g., African Americans, American Indians), caste, and gender evaluated in terms of stratification.

Soc 3201s. Critical Perspectives in Rural Sociology. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; offered when feasible)
Overview of the field of rural sociology. Covers demography, community, environment and natural resources, agriculture, and international development. Considerations of theoretical and methodological issues related to the disciplinary cornerstones of social organization and social change in rural areas.
**Division Structure and Course Descriptions**

**Soc 3250f,s. Variable Topics in Social Structure.** (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #)
In-depth study of one topic in sociology such as African American social institutions, the economic and social elite, bureaucracy, urban communities, social control, population, and demography.

**Soc 3251f. African Americans.** (HDIV; 4 cr; prereq 1101 or Anth 1111)

**Soc 3252s. Women in Muslim Society.** (IP; 4 cr; prereq 1101 or Anth 1111)

**Soc 3254s. The Sociology of Religion.** (SS; 4 cr; prereq 1101 or Anth 1111 or #; 4 addtl cr in Soc or Anth recommended; not offered 2004-05)
An examination of sociological theories concerning religion, the sociology of world religions, religious institutions and religious and social problems or concerns (oppression, birth control, ethnic differences, etc.) in the United States and other parts of the world. Religion and social control. Religion and resistance or revolution.

**Soc 3301s. India and South Asia.** (IP; 4 cr; prereq 1101 or Anth 1111 or #)
Same as Anth 3301. Examination of the cultures and societies of several South Indian countries with a primary focus on India. Topics include a brief history, economic and social issues and conditions, marriage and kinship practices, religions, regional differences, regional and international conflicts, and cultural and social change.

**Soc 3401f. Classical Sociological Theory.** (SS; 4 cr; prereq 1101; 4 addtl cr in Soc recommended)
Survey of major developments in classical sociological theory, with emphasis on the “Big Three”—Marx, Durkheim, and Weber, among others. Emphasis on sociological ideas in relation to the principal intellectual currents of European and American society.

**Soc 3402s. Contemporary Sociological Theory.** (SS; 4 cr; prereq 1101; 4 addtl cr in Soc recommended)
Survey of recent developments, trends, and debates in contemporary sociological theory; relationship of contemporary theories to classical theories and to current trends in European, American, and non-Western thought.

**Soc 3411s. Seminar in Anthropological Methodology.** (E/C; 4 cr; prereq 1101 or Anth 1111, 4 addtl cr in Soc or Anth) Same as Anth 3411. Exploration and evaluation of methods used in cultural anthropology; qualitative methods in sociology and anthropology; research ethics; design and execution of qualitative research project.

**Soc 4100. Tutorial in Sociological Theory.** (2-4 cr; repeatable to 8 cr; prereq 3401 or 3402; 5 addtl cr in Soc recommended)
Examines specific theorist(s). Topics vary according to student and staff interests and are announced in advance.

**Soc 4991f. Independent Project Seminar.** (5 cr; prereq 3101, 3401 or 3402)
Seminar to guide sociology majors in the completion of an independent study project; selection, definition, and execution of research project; small-group and one-to-one consultation and advising on defining a research topic, designing and planning its execution, developing a bibliography, relating relevant theoretical perspectives to research materials, organizing and writing a research paper.

**Soc 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study.** (1-5 cr; repeatable; prereq @)
Research, field, or cultural experiences.

**Soc 4994f,s. Senior Honors Project.** (1-5 cr; repeatable; prereq participation in Honors Program, @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

**Spanish (Span)**
This discipline is in the Division of the Humanities. It promotes a global perspective by encouraging students to take a close look at another culture and in this way become aware of both the diversity and similarity among all people.

**Objectives—**The Spanish curriculum offers coursework in Hispanic culture, language, and literature. The courses are designed to help students develop critical insight into the philosophy and values of another culture, fluency in a second language, and sensitivity toward literature that reflects the experience of the Spanish-speaking world. The curriculum accommodates liberal arts students interested in a cross-cultural perspective, language study, secondary school teaching, or preparation for graduate study in the field.

**Major Requirements**
- Span 2001—Intermediate Spanish I
- Span 2002—Intermediate Spanish II or equivalent
- Span 3001—Advanced Spanish I
- Span 3002—Advanced Spanish II
- Span 3101—Introduction to Spanish Literature
- Span 3201—Masterpieces of Spanish Peninsular Literature I
- Span 3202—Masterpieces of Spanish Peninsular Literature II
- Span 3301—Masterpieces of Latin American Literature I
- Span 3302—Masterpieces of Latin American Literature II

**one additional course from:**
- Span 3400—Variable Topics in Latin American Literature
- Span 3500—Variable Topics in Spanish Peninsular Literature

A foreign study experience and regular use of the language laboratory are strongly recommended to maintain language skills.

Latin American area studies courses are also recommended.

Courses with grades of D may not be used to meet the major requirements.

**Minor Requirements**
- Span 2001—Intermediate Spanish I
- Span 2002—Intermediate Spanish II or equivalent
Spanish

Span 3001—Advanced Spanish I
Span 3002—Advanced Spanish II
Span 3101—Introduction to Spanish Literature

three additional literature courses from:
Span 3201—Masterpieces of Spanish Peninsular Literature I
Span 3202—Masterpieces of Spanish Peninsular Literature II
Span 3301—Masterpieces of Latin American Literature I
Span 3302—Masterpieces of Latin American Literature II
Span 3400—Variable Topics in Latin American Literature
Span 3500—Variable Topics in Spanish Peninsular Literature

a foreign study experience and regular use of the language laboratory are recommended to maintain language skills

Latin American area studies courses are also recommended

Courses with grades of D may not be used to meet the minor requirements.

Teacher Preparation Requirements

Students seeking teaching licensure in Spanish K-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Required Proficiency/Placement Examination—Students who plan to complete courses in the same language that they studied in high school must take the proficiency/placement examination and abide by the placement recommendation. If, after an initial exposure to the recommended course, the placement seems inappropriate, students may follow the recommendation of their language instructor as to the proper entry course.

Students not Majoring or Minoring in Spanish

For an in-depth cultural emphasis, students should complete:
Span 1001—Beginning Spanish I
Span 1002—Beginning Spanish II or equivalent
Span 2001—Intermediate Spanish I
Span 2002—Intermediate Spanish II
Span 3101—Introduction to Spanish Literature

an additional literature course

courses in Latin American area studies and a foreign study experience are recommended

For an in-depth language emphasis, students should complete:
Span 1001—Beginning Spanish I
Span 1002—Beginning Spanish II or equivalent
Span 2001—Intermediate Spanish I
Span 2002—Intermediate Spanish II
Span 3001—Advanced Spanish I
Span 3002—Advanced Spanish II

Study Abroad

In light of today’s increasingly interdependent world, the UMM Spanish faculty endorses study abroad, in combination with a Spanish major or minor, as the most effective means by which to:

• Improve language abilities
• Broaden academic horizons
• Globalize one’s world view
• Expand career opportunities
• Advance cross-cultural and problem-solving skills
• Gain confidence in oneself personally and professionally.

Course Descriptions

Note: Students may not receive credit twice for a course that is offered in both English and Spanish.

Span 1001f. Beginning Spanish I. (FL; 4 cr)
Study of basic skills of Spanish (reading, speaking, writing, listening) and cultural contexts of Latin America and Spain. Students should demonstrate the ability to read and comprehend materials such as ads, instructions, etc.; engage in simple conversations in Spanish, to speak about themselves and express their basic needs; construct sentences and questions in Spanish in order to write accurately at the short paragraph level; comprehend short conversations.

Span 1002s. Beginning Spanish II. (IP; 4 cr; prereq 1001 or placement or #)
Second course in the sequence beginning with 1001.

Span 1050. Variable Topics in Associated Languages. (IP; 1-4 cr; offered when feasible)
Introduction to a number of languages and cultures of the Iberian Peninsula and Latin America, such as Portuguese, Nahuatl, etc.

Span 2001f. Intermediate Spanish I. (IP; 4 cr; prereq 1002 or placement or #)
Review and building of skills with a focus on basic Spanish language structures and tenses. Students should demonstrate the ability to read critically and understand the context of literary and cultural items; respond to simple questions, avoid basic pronunciation errors, engage in short conversations, discuss assigned themes at some length; write accurately at the paragraph level, avoiding common grammatical errors; comprehend conversations.

Span 2002s. Intermediate Spanish II. (IP; 4 cr; prereq 2001 or placement or #)
Review and building of skills in more complex language structures, tenses, and moods. Students should demonstrate the ability to read with some basic literary analysis and analyze cultural differences; read out loud with understanding, speak in emotive and persuasive language contexts, hold conversations, speak extemporaneously on assigned topics; write analytically and accurately at the short paper level; comprehend short dialogues and paragraphs.

Span 3001f. Advanced Spanish I. (IP; 4 cr; prereq 2002 or #)
Study of complex language structures, expansion and reinforcement of grammar constructions, and analysis of
literary and/or cultural readings. Students should demonstrate the ability to carefully read, comprehend, and analyze literary works and/or cultural readings; discuss motives and themes in such works, read out loud with proficiency and meaning, hold sustained conversations; use correct grammar to write and present compositions analyzing the works; comprehend main points in Scola televised presentations and materials. **Span 3002s. Advanced Spanish II.** (IP; 4 cr; prereq 3001) Second course in the sequence beginning with 3001.

**Span 3101s. Introduction to Spanish Literature.** (Hum; 4 cr, prereq 3001; prereq or coreq 3002 for majors) Study of a variety of literary genres representing the literature of Spain and Latin America; rudiments of literary analysis and interpretation. Students should demonstrate the ability to read and comprehend the literary works studied, analyze works critically while developing a sensitivity toward certain cultural aspects and literary nuances expressed therein; participate in and comprehend sustained class discussion with respect to certain topics or themes; write with accuracy in Spanish and show some degree of analytical proficiency at the short paper level.

**Span 3201f. Masterpieces of Spanish Peninsular Literature I.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from the Generation of 1898 and the Contemporary Period. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3202s. Masterpieces of Spanish Peninsular Literature II.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from Medieval, Renaissance, Golden Age, 18th century, and 19th century. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3301f. Masterpieces of Latin American Literature I.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from Latin America in the 20th century. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3302s. Masterpieces of Latin American Literature II.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from Latin America from 1492 to 1900. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3400s. Variable Topics in Latin American Literature.** (Hum; 4 cr; repeatable when topic changes; prereq 3002, 3101) Topic to be announced. Students should demonstrate the ability to analyze literary texts, using the text as well as aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3500f. Variable Topics in Spanish Peninsular Literature.** (Hum; 4 cr; repeatable when topic changes; prereq 3002, 3101) Topic to be announced. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study.** (1-5 cr; repeatable; prereq @) Span 3002s. Advanced Spanish II. (IP; 4 cr; prereq 3001; prereq or coreq 3002 for majors) Study of a variety of literary genres representing the literature of Spain and Latin America; rudiments of literary analysis and interpretation. Students should demonstrate the ability to read and comprehend the literary works studied, analyze works critically while developing a sensitivity toward certain cultural aspects and literary nuances expressed therein; participate in and comprehend sustained class discussion with respect to certain topics or themes; write with accuracy in Spanish and show some degree of analytical proficiency at the short paper level.

**Span 3201f. Masterpieces of Spanish Peninsular Literature I.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from the Generation of 1898 and the Contemporary Period. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3202s. Masterpieces of Spanish Peninsular Literature II.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from Medieval, Renaissance, Golden Age, 18th century, and 19th century. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Span 3301f. Masterpieces of Latin American Literature I.** (Hum; 4 cr; prereq 3002, 3101) Masterpieces from Latin America in the 20th century. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Speech Communication (Spch)**

This discipline is in the Division of the Humanities. The speech communication curriculum is designed to introduce UMM students to the study of the multidimensional nature of oral communication, including rhetoric, human communication, and electronic mass media; to promote the skills of lifelong learning as producers and consumers of messages; to develop in students the capabilities for active involvement in a participatory democracy.

**Objectives**—Students develop a historical and theoretical understanding of the three areas of speech communication: rhetoric, communications, electronic mass media. Students use a variety of assigned theoretical approaches appropriate to these three areas to describe and evaluate assigned or chosen discourse.

Students participate in a variety of oral communication assignments using informative and persuasive speaking techniques effectively.

**Major Requirements**

**Prerequisite/Foundation Course**

Spch 2101—Introduction to Speech Communication

**Major Core Courses**

Spch 3101—History of Rhetoric From the Classical to Modern Periods

Spch 3301—Media Theory, Criticism, and Problems

Spch 3401—Human Communication Theory
**Teacher Preparation Requirements**

Students seeking teaching licensure in communication arts and literature 5-12 should refer to the Education, Secondary (SeEd) section of this catalog. Students completing the course requirements for licensure in communication arts and literature earn an English major.

**Course Descriptions**

**Spch 1000f. Variable Topics in Introduction to Public Speaking.** *(E/CR; 4 cr; repeatable when topic changes; not open to students who have taken 1051; offered when feasible)*

Theory and practice within specific speaking situations that use various arguments, e.g., presentational, deliberative, or forensic.

**Spch 1051f,s. Introduction to Public Speaking.** *(E/CR; 4 cr)*

Public address and directed practice in a variety of speech situations.

**Spch 1061f. Interpersonal Communication.** *(SS; 4 cr)*

Basic theory and practice of interpersonal communication in a variety of contexts.

**Spch 1071f. Introduction to Groups: Principles and Practices.** *(SS; 4 cr; not offered 2004-05)*

Group theory and directed practice in a variety of group situations, e.g., panels, symposia, and forums.

**Spch 2101s. Introduction to Speech Communication.** *(Hum; 4 cr)*

A survey of the field of study that has emerged around the oral communication tradition. Students learn the history, theories, and contexts of communication study that prepare them for upper-division courses.

**Spch 3101f. History of Rhetoric From the Classical to Modern Periods.** *(IP; 4 cr; prereq 2101 or #)*

Rhetoric from the classical theories of Corax and Tisias, Aristotle, and Cicero to the modern theories of Blair, Campbell, and Whately.

**Spch 3111. History of Rhetoric in the Contemporary Period.** *(Hum; 4 cr; prereq 2101 or #; offered spring 2004, fall 2005)*

Detailed study of the development of contemporary rhetorical theory, with particular emphasis placed on the use of those theories in the development of rhetorical criticism.

**Spch 3200s. Variable Topics in Public Address.** *(Hum; 4 cr; repeatable when topic changes; prereq 2101 or #; not offered 2003-04)*

Analysis and evaluation of situated discourse. Topics may include British and American public address, inaugurals, rhetorical practice of non-dominant cultural groups.

**Spch 3301s. Media Theory, Criticism, and Problems.** *(SS; 4 cr; prereq 2101 or #)*

Theories, research studies, current trends, and various critical approaches to examine and explain the reflexive relationships between media and society.

**Spch 3311s. Social Uses of the Media.** *(E/CR; 4 cr; prereq 2101 or #)*

Participation in the planning, production, and performance of television projects designed to serve various publics, such as campus units or the community.
Spch 3321f. Principles of Television Broadcasting. (Hum; 4 cr; prereq 2101 or #) Basic theories and practice: equipment, procedures, and skills associated with writing for and the production of televised broadcasting. Lectures, studio projects, class critiques.

Spch 3401f. Human Communication Theory. (SS; 4 cr; prereq 2101 or #) Detailed study of the theoretical tradition of human communication. Focuses on social scientific and humanities theories used to explain social interaction. Provides general foundation on various traditions of inquiry as well as qualitative and quantitative methods.

Spch 3411f. Intercultural Communication Theory and Research. (HDiv; 4 cr; prereq 2101 or #) Study of intercultural communication from an interpersonal and group perspective.

Spch 3421s. Organizational Communication Theory and Research. (SS; 4 cr; prereq 2101 or #) Study of organizational communication, including small group perspectives.

Spch 4000. Variable Topics in Speech Communication. (4 cr; repeatable when topic changes; prereq 2101 or #; offered when feasible) Varying topics relating to speech communication that are not ordinarily included in other speech communication courses.

Spch 4100f. Variable Topics in Freedom of Speech. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq jr or sr or #; not offered 2003-04) Topics may include freedom of speech in the schools, history of free speech, or the contribution of a single Supreme Court justice to the development of free speech. Emphasis on reading and discussion of Supreme Court decisions.

Spch 4115f. Argumentation: Theory and Practice. (Hum; 4 cr; prereq 2101 or #) A study of rhetorical argument design and evaluation. Students analyze and critique arguments, as well as plan and present formal speeches.

Spch 4201s. Persuasion: Receiver Analysis. (Hum; 4 cr; prereq 2101 or #) Investigation of persuasion theory and research from rhetorical and social science perspectives. Students analyze particular instances of persuasive attempts.

Spch 4800f,s. Directed Experience in Teaching Speech Communication. (1-4 cr; repeatable to 8 cr; prereq #: S-N only) Practice as facilitators in the introductory-level speech courses; weekly seminar sessions focus on method, planning, and problems in speech communication instruction.

Spch 4901s. Speech Communication Seminar. (Hum; 4 cr; prereq sr, 2101, 3101, 3301, 3401, or #) Capstone experience for majors in which students plan and conduct a project of original study that investigates a question about communication. Students select their own research methodology and implement it, presenting their findings in written and oral presentations.

Spch 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @) A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Statistics (Stat)

This discipline is in the Division of Science and Mathematics.

The mission of the discipline is to create and apply statistical methods/techniques for collecting, exploring, analyzing and communicating qualitative/quantitative information and to disseminate this knowledge through teaching, scholarly activity and outreach.

Uncertainty is a fact of life. Statistics is the science and art of enhancing knowledge in the face of uncertainty by modeling, predictions, and decisions. Therefore it is central to solutions of problems in medicine, law, industry, technology, finance, business, public policy, computing, and science in general. The need for statistics applies to almost every area of our lives.

Objectives—The statistics program provides an effective operational knowledge of the theory and methods of statistics and the application of statistical methods in a liberal arts environment. It seeks to enhance students’ critical thinking in making judgments based on data and provides students with the basic knowledge and skills to make contributions to modern society. Students learn to communicate and collaborate effectively with people in other fields and, in the process, to understand the substance of these fields. The curriculum prepares students to enter graduate school or pursue careers in statistical fields at research institutions and industry.

Major Requirements

Math 1101-1102 — Calculus I-II
Stat 1601 — Introduction to Statistics or Stat 2601 — Statistical Methods
Math/Stat 2501 — Probability and Stochastic Processes
Stat 2611 — Mathematical Statistics
Stat 3601 — Data Analysis
Stat 4901 — Senior Seminar
8 additional credits in statistics courses:
Stat 3611 — Multivariate Statistical Analysis
Stat 4601 — Biostatistics
Stat 4652 — Variable Topics in Statistics
Stat x993 — Directed Study in Statistics
A minimum of 4 credits to be chosen from:
Math 2101—Calculus III.
Math 2111—Linear Algebra
Math 2202—Mathematical Perspectives
Math 3201—Analysis
Math 3401—Operations Research
Math 3501—Applied Deterministic Modeling for Management Science
Math 3502—Applied Probabilistic Modeling for Management Science
CSci 1211—Introduction to Problem Solving with Java
CSci 1301—Problem Solving and Algorithm Development I
CSci 1302—Problem Solving and Algorithm Development II
Econ 3501—Introduction to Econometrics
Pol 3101—Political Science Analysis
Psy 3601—Quantitative Methods in Psychology
Soc 3101—Research Methodology I
Soc 3102—Research Methodology II
Other courses with faculty approval
Students planning to pursue graduate work in statistics or biostatistics should complete Math 2101—Calculus III and consider taking Math 2202—Mathematical Perspectives and Math 3211—Analysis for Ph.D. preparation.

Minor Requirements
Stat 1601—Introduction to Statistics
or Stat 2601—Statistical Methods
Stat 3601—Data Analysis
A minimum of 16 additional credits from courses listed in the major requirements section of approved courses, with at least one course with a Stat designator.

Course Descriptions
Stat 1601f,s, Introduction to Statistics. (M/SR; 4 cr; prereq high school higher algebra)
Scope, nature, tools, language, and interpretation of elementary statistics. Descriptive statistics; graphical and numerical representation of information; measures of location, dispersion, position, and dependence; exploratory data analysis. Elementary probability theory, discrete and continuous probability models. Inferential statistics, point and interval estimation, tests of statistical hypotheses. Inferences involving one and two populations, ANOVA, regression analysis, and chi-squared tests; use of statistical computer packages.

Stat 2501f. Probability and Stochastic Processes. (M/SR; 4 cr; prereq Math 1101 or #)

Stat 2601f. Statistical Methods. (M/SR; 4 cr; prereq Math 1101 or Math 1021)
Descriptive statistics, elementary probability theory; laws of probability, random variables, discrete and continuous probability models, functions of random variables, mathematical expectation. Statistical inference; point estimation, interval estimation, tests of hypotheses. Other statistical methods: linear regression and correlation, ANOVA, nonparametric statistics, statistical quality control, use of statistical computer packages.

Stat 2611s. Mathematical Statistics. (M/SR; 4 cr; prereq Math 1101)
Introduction to probability theory. Principles of data reduction; sufficiency principle. Point estimation; methods of finding and evaluating estimators. Hypothesis testing; methods of finding and evaluating tests. Interval estimation; methods of finding and evaluating interval estimators. Linear regression and ANOVA.

Stat 3601f. Data Analysis. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #)
Nature and objectives of statistical data analysis, exploratory and confirmatory data analysis techniques. Some types of statistical procedures; formulation of models, examination of the adequacy of the models. Some special models; simple regression, correlation analysis, multiple regression analysis, analysis of variance, use of statistical computer packages.

Stat 3611s. Multivariate Statistical Analysis. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #)
Analysis of categorical data. Loglinear models for two- and higher-dimensional contingency tables. Logistic regression models. Aspects of multivariate analysis, random vectors, sample geometry and random sampling, multivariate normal distribution, inferences about the mean vector, MANOVA. Analysis of covariance structures; principal components, factor analysis. Classification and grouping techniques: discrimination and classification, clustering, use of statistical computer packages.

Stat 4601s. Biostatistics. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #)
Design and analysis of biological studies: biological assays, case-control studies, randomized clinical trials, factorial designs, repeated measures designs, observational studies, and infectious disease data. Analysis of survival data: basic concepts in survival analysis, group comparisons, and Cox regression model. Use of statistical computer packages.

Stat 4650s. Variable Topics in Statistics. (M/SR; 4 cr; repeatable when topic changes; prereq 1601 or 2601 or 2611 or Math 2601 or Math 2611 or Math 2611 or #)
Topics selected from nonparametric methods, linear and nonlinear regression analysis, ANOVA, design of experiments, sampling methods, time series analysis and statistical computing.

Stat 4901f. Senior Seminar. (M/SR; 1 cr; prereq sr)
Full-year course. Required for all students who design a statistics area of concentration. Students must attend year round and present one of the seminars.

Stat 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

Stat 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, sr, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”
Studio Art (ArtS)
(See Art, Studio.)

Teacher Education Programs
(See Education; Education, Elementary; and Education, Secondary.)

Theatre Arts (Th)
This discipline is in the Division of the Humanities. The discipline encompasses theatre as an artistic form and as a social and cultural institution. The study of theatre arts enables the individual to develop a creative imagination, an inquiring mind, a sense of social responsibility, professional discipline, a collaborative attitude, artistic standards and judgment, and a respect for the art form.

Objectives—The curriculum provides sound academic and practical training in theatre arts for undergraduate liberal arts students, for those wishing to pursue graduate studies in the field, and for those preparing to teach. It is designed to help students develop an appreciation for and ability to produce quality theatre.

Major Requirements
Th 1101—The Theatre Experience: An Introduction
Th 1111—Fundamentals of Acting
Th 1301—Fundamentals of Design
Th 2101—Fundamentals of Directing
Th 2301—Stagecraft
Th 3101—World Theatre: History and Literature I
Th 3102—World Theatre: History and Literature II
Th 3201—Advanced Acting and Directing: Period Styles
or Th 3202—Advanced Acting and Directing: Realism and Alternatives
Th 4901—Senior Project
or Th 4994—Senior Honors Project
one course from:
Th 2111—Creative Drama with Children
Th 2201—Voice and Movement
Th 2211—Oral Interpretation
Th 2221—Readers’ Theatre
Th 3000—Variable Topics in Theatre Arts (as approved by discipline)
Th 3101—World Theatre: History and Literature I
Th 3102—World Theatre: History and Literature II
Th 3201—Advanced Acting and Directing: Period Styles
or Th 3202—Advanced Acting and Directing: Realism and Alternatives
Th 3301—Stage Lighting
Th 3302—Stage Costuming
Th 3303—Computer-Assisted Drawing
Th 4301—Scenic Design

Up to 4 credits of coursework with a grade of D may be used to meet the major requirements if offset by an equivalent number of credits of A or B.

Minor Requirements
Th 1101—The Theatre Experience: An Introduction
Th 1111—Fundamentals of Acting
Th 1301—Fundamentals of Design
Th 2101—Fundamentals of Directing
Th 2301—Stagecraft
at least three courses from:
Th 2111—Creative Drama with Children
Th 2201—Voice and Movement
Th 2211—Oral Interpretation
Th 2221—Readers’ Theatre
Th 3000—Variable Topics in Theatre Arts (as approved by discipline)
Th 3101—World Theatre: History and Literature I
Th 3102—World Theatre: History and Literature II
Th 3201—Advanced Acting and Directing: Period Styles
or Th 3202—Advanced Acting and Directing: Realism and Alternatives
Th 3301—Stage Lighting
Th 3302—Stage Costuming
Th 3303—Computer-Assisted Drawing
Th 4301—Scenic Design

Up to 4 credits of coursework with a grade of D may be used to meet the minor requirements if offset by an equivalent number of credits of A or B.

Teacher Preparation Requirements
Students seeking teaching licensure in dance and theatre arts K-12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions
Th 1040. Backstage on Broadway. (1 cr; repeatable to 4 cr; prereq #: S-N only; offered when feasible)
Supervised field trip to New York; attending selected professional theatre productions; backstage tours; discussions with theatre professionals.

Th 1050. London Theatre Tour. (1 cr; repeatable to 4 cr; prereq #: S-N only; offered when feasible)
Supervised field trip to London, England; attending selected professional theatre productions; backstage tours; discussions with theatre professionals.
Th 1060f,s. Theatre Practicum. (1 cr; repeatable to 8 cr; prereq #: S-N only) Participation in some aspect of theatre production, other than acting (e.g., scenery, props, costumes, lighting).

Th 1070f,s. Theatre Performance. (ArtP; 1 cr; repeatable to 8 cr; prereq #: S-N only) Participation in theatrical production as an actor.

Th 1101f. The Theatre Experience: An Introduction. (FA; 4 cr) Fundamental examination and practical application of the theory, history, and practice of theatrical performance as a reflection of society. Focus is on the theatre event as a collaborative effort and transitory art form. Practicum required two hours per week, selected from M-Th from 2:00-5:30 p.m. (lect, 2 hrs practicum)

Th 1111f. Fundamentals of Acting. (ArtP; 4 cr; prereq 1101, theatre arts major or minor or #: Approaches characterization from a physical and psychological view. Focus is on use of imagination, text analysis, body and voice to develop characters from modern realistic dramatic literature.

Th 1301f. Fundamentals of Design. (ArtP; 4 cr) Problem-solving approach to elements, principles, and functions of design; their place in the theatre and elsewhere. (3 hrs lect, 2 hrs studio)

Th 2101s. Fundamentals of Directing. (ArtP; 4 cr; prereq 1111, theatre arts major or minor or #: Introduces the practical components of the director as artist, teacher, and collaborator. Focus is on the craft of directing modern realistic dramatic literature through text analysis, communication of concepts, and stylistic techniques.

Th 2111f. Creative Drama With Children. (FA; 4 cr; prereq 1101 or theatre or elem ed major or #: offered when feasible) The course develops classroom skills in the use of dramatic techniques to teach a broad range of subjects to children. Exercises, presentations, and experiential learning techniques are modeled and practiced in class.

Th 2201f. Voice and Movement. (ArtP; 4 cr; prereq 1111, theatre arts major or minor or #: Explores the use of the voice and the body as means for expression in performance and everyday communication. Focus is on expansion and enhancement of vocal and physical skills through release of tension, posture, vocal exercises, and muscle extension.

Th 2211s. Oral Interpretation. (ArtP; 4 cr; offered alternate yrs) Introduces the study of literature through text analysis and performance. Focus is on the student’s discovery of the aesthetic, communicative, and performative elements of a variety of personal narratives, prose, and poetry.

Th 2221f. Readers’ Theatre. (ArtP; 4 cr; prereq 2211; offered when feasible) Explores the theory and practice of adapting literature into group performance. Focus is on text analysis, script development, directing, and performing both dramatic and non-dramatic literary texts.

Th 2301s. Stagecraft. (ArtP; 4 cr) Development of stagecraft from the Greeks to the present. Basic forms of stage scenery and their functions in the theatre. Tools, materials, and techniques employed in creating the visual environment of the stage. (3 hrs lect, 3 hrs practicum)

Th 3000f. Variable Topics in Theatre Arts. (See specific topics for general ed categories; 1-4 cr; repeatable when topic changes; prereq #: offered when feasible) Varying topics relating to theatre that are not ordinarily included in other theatre arts courses.

Th 3101f. World Theatre: History and Literature I. (Hist; 4 cr; prereq 1101; recommend 3101, 3102 taken in sequence in the same year) Theatrical practice and dramatic literature from origins through late 17th century, tracing the roots leading to, and influences on, early modern European theatre practice and dramatic literature, as well as examining select Asian, African, and/or pre-Columbian American theatrical practice.

Th 3102s. World Theatre: History and Literature II. (Hist; 4 cr; prereq 1101, 3101; recommend 3101, 3102 taken in sequence in the same year) Theatrical practice and dramatic literature from the late 17th century to the present, examining select Asian, African, and/or Western Hemisphere theatrical practice, as well as tracing the roots leading to, and influences on, current world theatre practice and dramatic literature.

Th 3201f. Advanced Acting and Directing: Period Styles. (ArtP; 4 cr; prereq 1101, 1111, 2101; offered alternate yrs) The course introduces students to selected historical period styles often performed in today’s theatre and the acting and directing techniques needed to practice them. Styles to be examined are chosen from a list including Ancient Greek, Elizabethan, Comedy of Manners, and 19th century melodrama.

Th 3202s. Advanced Acting and Directing: Realism and Alternatives. (ArtP; 4 cr; prereq 1101, 1111, 2101; offered alternate yrs) The course begins with acting and directing techniques based in psychological realism and goes on to develop an understanding of, and skills in, selected nonrealistic forms. Forms examined are chosen from a list including absurdism, feminism, postmodernism, and expressionism.

Th 3301s. Stage Lighting. (ArtP; 4 cr; prereq 1301, 2301; not offered 2003-04) History and development of lighting for the stage. Theory and concepts of lighting as a visual art and its function in the theatre. Lighting design as a creative process and practical solution of lighting design problems. Lighting equipment and its use.

Th 3302s. Stage Costuming. (FA; 4 cr; prereq 1301, 2301; not offered 2004-05) History and development of stage costume. Theory and concepts of stage costuming as a visual art and its function in the theatre. Costume design as a creative process. Practical demonstrations of knowledge of design, history, and functions of stage costume.


Th 4301s. Scenic Design. (FA; 4 cr; prereq 1301, 2301; offered alternate yrs) Designing scenery as an expressive environment for the theatre. Elements and functions of design and principles of composition. Problems in coordination and execution of design in the interpretation of dramatic literature using a variety of staging techniques. Study of various styles of historical and contemporary stage productions and theatre architecture through the writings and designs of such artists and theorists as Appia, Craig, Meyerhold, Jones, and Svoboda.
Division Structure and Course Descriptions

Th 4901f,s. Senior Project. (2-4 cr; prereq theatre arts major, @)
Culminating activity to demonstrate the student’s competence in some area of theatre arts. Projects may be completed independently (e.g., a research paper, a solo acting performance) or as part of a group effort. Acting, scenery, lighting, costume design, playwriting, and theatre history are some areas in which the project may be undertaken.

Th 1993f,s, 2993f,s, 3993f,s, 4993f,s. Directed Study. (1-5 cr; repeatable; prereq @)

Th 4994f,s. Senior Honors Project. (1-5 cr; repeatable; prereq participation in Honors Program, @)
A substantial scholarly or creative work (at the undergraduate level) within the discipline. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Wellness and Sport Science (WSS)

This discipline is in the Division of Education.

Objectives—This curriculum helps students develop and maintain a healthy lifestyle and prepares them for a lifetime of service as sports management and coaching professionals.

The statement, “Varsity coaching requirements completed,” is added to the transcript of students who complete:

Coaching
WSS 1101—First Aid
WSS 2102—Human Anatomy
WSS 2111—Kinesiology
WSS 2112—Exercise Physiology
WSS 2121—Prevention and Care of Injuries
WSS 3201—Coaching and Internship
two credits from:
WSS 2201—Baseball Coaching
WSS 2202—Basketball Coaching
WSS 2203—Football Coaching
WSS 2204—Softball Coaching
WSS 2205—Track and Field Coaching
WSS 2206—Volleyball Coaching
WSS 2207—Wrestling Coaching
WSS 2208—Soccer Coaching

Sports Management
The area of sports management focuses on contemporary sport as a product of social, psychological, and economic phenomena. Coursework in this area of concentration addresses such topics as ethics and sport; psychology of sport performance; lifetime fitness and health; philosophy of sports; sport facilities and equipment; sport promotion; and sport injuries.

Suggested concentration requirements
(See page 60 for more information on majors and areas of concentration.)
WSS 1051—Fitness for Life
WSS 1052—Societal Issues in Wellness and Health
WSS 1101—First Aid
WSS 2102—Human Anatomy
WSS 2111—Kinesiology
WSS 2112—Exercise Physiology
WSS 2121—Prevention and Care of Injuries
WSS 2401—Sociological Aspects of Sports
WSS 2402—Psychological Aspects of Sports
WSS 3210—Internship in Wellness and Sport Science (min 4, max 8 cr)
WSS 4101—Planning and Programming of Athletic Facilities
WSS 4102—Organization and Administration of Athletics and Recreation
WSS 4901—Senior Seminar
Mgmt 2101—Principles of Accounting I
Mgmt 2102—Principles of Accounting II
Mgmt 3201—Marketing Principles and Strategies
Mgmt 3221—Management and Organization Theory
Stat 1601—Introduction to Statistics
Two of the following courses:
WSS 2201—Baseball Coaching
WSS 2202—Basketball Coaching
WSS 2203—Football Coaching
WSS 2204—Softball Coaching
WSS 2205—Track and Field Coaching
WSS 2206—Volleyball Coaching
WSS 2207—Wrestling Coaching
WSS 2208—Soccer Coaching

One of the following courses:
Spch 1000—Variable Topics in Introduction to Public Speaking
Spch 1051—Introduction to Public Speaking
Spch 1061—Interpersonal Communication
Spch 1071—Introduction to Groups: Principles and Practices

Note: Up to four credits of D may be used to meet the area of concentration requirements if offset by a sufficient number of higher grades to meet the minimum requirement of a cumulative GPA of 2.00 in all courses included in the area of concentration.

Course Descriptions
WSS 1051f,s. Fitness for Life. (2 cr)
Factors associated with a positive lifestyle, assessment of each individual’s current wellness status, and development of a personal lifetime program for improving one’s quality of life.

WSS 1052f,s. Societal Issues in Health and Wellness. (SS; 2 cr)
A study of how perceptions of society’s health and wellness issues affect our individual health/fitness choices.

WSS 1101f,s. First Aid. (1 cr)
Lectures, demonstrations, practical work in emergencies and first aid. Emphasis on accident prevention. National Safety Council first aid and CPR certification is awarded upon successful completion of the course.

WSS 1200f,s. Variable Topics in Wellness Skills. (0.5 cr; repeatable when topic changes; each topic repeatable to 1 cr; S-N only)
Lifetime fitness skill development. Only 4 credits may be applied toward the 120-credit minimum required for the bachelor of arts degree.

**WSS 1211s. Badminton.** (0.5 cr; S-N only)
**WSS 1213f. Golf.** (0.5 cr; S-N only)
**WSS 1219f,s. Strength Training.** (0.5 cr; S-N only)

**Varsity Athletics**

All varsity athletics courses below carry 0.5 credit, are repeatable to a total of 2 credits, and are graded S-N only.

**WSS 1401s. Varsity Baseball (M).**
**WSS 1402s. Varsity Basketball.**
**WSS 1403. Varsity Cross Country (W).**
**WSS 1404f. Varsity Football (M).**
**WSS 1405s. Varsity Golf.**
**WSS 1406s. Varsity Softball (W).**
**WSS 1407s. Varsity Tennis.**
**WSS 1408s. Varsity Track and Field.**
**WSS 1409s. Varsity Wrestling.**
**WSS 1410f. Varsity Volleyball (W).**
**WSS 1411f. Varsity Soccer (W).**

**Course Descriptions**

**WSS 2000f,s. Variable Topics in Wellness and Sport Science I.** (1-2 cr; repeatable when topic changes)
Topic selected annually from issues in wellness studies.

**WSS 2001s. Advanced Topics in First Aid.** (1 cr)
Lectures, demonstrations, practical work in emergency care, focusing on advanced immobilization, transportation of injured or ill individuals, use of AED, bloodborne pathogens, and oxygen administration. National Safety Council certification is awarded upon successful completion of the course.

**WSS 2002s. Pharmacology in Athletic Training.** (1 cr)
Legal and illegal drug use. Topics include indications, contraindications, and effects of commonly used non-prescription and prescription medications; ergogenic aids and the use of illegal substances in athletics; neurophysiology and pharmacology as it relates to the effects of drugs on active individuals.

**WSS 2003s. Nutrition.** (2 cr)
Basic nutrition, fundamentals of digestion, absorption and metabolism, nutrients and their roles, and specific sports/nutrition related subjects.

**WSS 2102f. Human Anatomy.** (3 cr; prereq soph)
Same as Biol 2102. Structure of human systems at their organ and cellular levels. (one 100-min lect, one 120-min lab)

**WSS 2111f. Kinesiology.** (Sci; 2 cr; prereq 2102)
Scientific principles of movement and tissue responses to force; analysis of basic movement in sports and other physical activities.

**WSS 2112f. Exercise Physiology.** (2 cr)
Human physiological adaptations resulting from activity/exercise.

**WSS 2121s. Prevention and Care of Injuries.** (4 cr; prereq 2111)
Introduction to safety measures, care, prevention, and rehabilitation of injuries in sports and other physical activities. (three 65-min lect, one 65-min lab)

**WSS 2201s. Baseball Coaching.** (2 cr)
History, psychology, and theory of the game, techniques of coaching each position, rules, batting, practice and game organization, strategy, officiating.

**WSS 2202f. Basketball Coaching.** (2 cr)
History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules, and techniques of coaching each position.

**WSS 2203f. Football Coaching.** (2 cr)
History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules, techniques of coaching each position.

**WSS 2204s. Softball Coaching.** (2 cr; offered even yrs)
History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules.

**WSS 2205s. Track and Field Coaching.** (2 cr)
History, psychology, and theory of the sports, techniques for all track and field events, methods of coaching, practice and meet organization, strategy, rules, officiating.

**WSS 2206f. Volleyball Coaching.** (2 cr)
History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules.

**WSS 2207f. Wrestling Coaching.** (2 cr)
History, psychology, and theory of the sport, techniques, practice and meet organization, officiating, rules, and strategies.

**WSS 2208f. Soccer Coaching.** (2 cr; offered even yrs)
History, psychology, and theory of the sport, individual techniques, practice and game organization, officiating, rules and strategies.

**WSS 2401s. Sociological Aspects of Sports.** (SS; 2 cr)
Sociological aspects of physical education, sports, and recreation and the implications this knowledge has for effective teaching, coaching, and athletic training.

**WSS 2402s. Psychological Aspects of Sports.** (SS; 2 cr; prereq 2401)
Psychological aspects of physical education, sports, and recreation and the implications this knowledge has for effective teaching, coaching, and athletic training.

**WSS 3000. Variable Topics in Wellness and Sport Science II.** (See specific topics; 1-4 cr; repeatable when topic changes)
The educational objectives of these courses are realized through the use of materials from multiple disciplines. These courses emphasize the holistic nature of health care and the unique abilities and skills that liberally educated individuals bring to analysis and problem solving in health care.

**WSS 3002s. Medical Aspects.** (4 cr; prereq 2121; offered when feasible)
Etiology, evaluation, diagnosis, and treatment of medical conditions affecting active individuals, including predispositions; physiological variants; sociological, psychological, race, and gender factors.

**WSS 3003f. Rehabilitation of Injury and Disease.** (2 cr; prereq 2121; coreq 3004; offered when feasible)
Division Structure and Course Descriptions

WSS 3004f. Therapeutic Modalities. (2 cr; prereq 2121; coreq 3003; offered when feasible)
Relationship of the electromagnetic and acoustic spectra to biological tissue response. The pathophysiology of pain and healing. The psychological and ethical implications of therapeutic modalities. Research design and evaluation.

WSS 3005s. Organization and Administration of Athletic Health Care. (4 cr; prereq 2121; offered when feasible)
Factors and relationships necessary to achieve organizational objectives: establishment of goals, policies, procedures, planning; organizational structure and behavior; leadership; ethics; and legal aspects.

WSS 3201f,s. Coaching Internship. (1 cr; prereq #: S-N only)
Supervised field experience in coaching, consisting of no fewer than 40 hours.

WSS 3210f,s. Internship in Wellness and Sport Science. (1-12 cr; repeatable; prereq #: S-N only)
An educational experience in a work environment providing field applications for the student’s theoretical classroom learning experiences. Learning contract approved by instructor prior to registration.

WSS 4101s. Planning and Programming of Athletic Facilities. (SS; 4 cr)
Theories/techniques in administration/management of sport enterprises, including the steps in planning/building facilities for athletics, physical education, and sport for college, professional, and public use.

WSS 4102f. Organization and Administration of Athletics and Recreation. (SS; 4 cr; prereq 4101)
Comprehensive analysis of organization and management of athletics and recreation.

WSS 1993f,s. Directed Study. (1-5 cr; prereq; S-N only)

Women’s Studies (WoSt)
This is an interdisciplinary program housed in the Division of the Social Sciences. The program is administered by the coordinator of women’s studies who is a faculty member of any of the four divisions.

Objectives—To explore the history, position, and roles of women as well as the attitudes concerning them and to acquaint students with the changing determinants of women’s situations.

Major Requirements
Some of the courses required for the major carry prerequisites. Students interested in the major should meet with the coordinator of women’s studies before the end of their junior year.

Minimum of 40 credits to include:
WoSt 1101—Introduction to Women’s Studies
Engl 2031—Gender in Literature and Culture
Hist 3700—Variable Topics in the History of Women
Psy 3051—The Psychology of Women
WoSt 4901—Assessment of Student Learning in Women’s Studies

Continuing Education Courses
WSS 1301. CE: Beginning Karate. (0.5 cr; additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement; S-N only)
Terminology, fundamentals, basic techniques of blocking, punching and kicking; basic attack and defense strategies.

WSS 1303. CE: Advanced Karate. (0.5 cr; prereq 1301 or #: additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement; S-N only)
Continuation of 1301. Detailed instruction in authentic karate technique. Instructor sets groundwork as students begin training for first degree black belt.

WSS 1321. CE: Beginning Modern Dance/Ballet. (ArtP; 1 cr; S-N only)
Practice in the fundamental movement vocabulary and steps of dance with an emphasis on traditional ballet techniques and modern dance interpretations. Discussion of the cultural origins of style in dance and role of dance in contemporary life.

WSS 1322. CE: Intermediate Ballet. (ArtP; 1 cr; prereq #: S-N only)
Builds on basic dance vocabulary toward mastery of ballet technique. Exercises from a combination of classical approaches. Emphasis on advancing technical skill through conditioning and performance of ballet steps and combinations. Meets second half of fall semester.

WSS 1331. CE: Beginning Modern/Jazz Dance. (ArtP; 1 cr; S-N only)
Practice in the fundamental movement vocabulary and steps of dance as a performance art from the unique perspective of American jazz in combination with the techniques of modern dance. Discussion of the cultural origins of jazz, individual style in dance, and role of dance in contemporary life.

WSS 1332. CE: Intermediate Jazz Dance. (ArtP; 1 cr; prereq #: S-N only)
Builds on basic dance vocabulary with emphasis on the movement vocabulary of jazz dance. Emphasis on African dance roots and stylistic variations in contemporary jazz dance forms.

WSS 1333. CE: Intermediate Modern Dance. (ArtP; 1 cr; prereq #: S-N only)
Builds on basic dance vocabulary with movement exercises from traditional schools of modern dance technique (Wigman/Holm, Graham, Humphrey/Limon, Horton, Cunningham). Emphasis on advancing technical skills through conditioning, improvisation, and performance of movement combinations. Class meets first half of fall semester.

WSS 2301. CE: Dance Production. (ArtP; 1 cr; prereq #: additional tuition required; course not included in UMM tuition band; subject to minimum enrollment requirement; S-N only)
Variety of directed projects in performance and production aspects of dance for the stage, culminating in a public performance. Meets second half of spring semester.

WSS 4901—Assessment of Student Learning in Women’s Studies
One course from:
Anth 2302—Women in Latin America
Soc 2101—Systems of Oppression
Soc 2302—Women in Latin America
Soc 3121—Sociology of Gender
Soc 3200—Variable Topics in Social Stratification
Soc 3252—Women in Muslim Society
WoSt 1111—Women’s Studies Across the Curriculum

One course from:
WoSt 4801—Culminating Experience in Women’s Studies
WoSt 4993—Directed Study

An additional 15 credits are to be selected from the courses listed in the course description section below. These courses must come from at least three different disciplines. A course not listed may be applied to the 15-credit requirement with the consent of the instructor and women’s studies major adviser. Any directed study course for which an instructor is available is acceptable provided the subject matter is appropriate. Appropriate courses incorporate women’s studies theories and/or methodologies. With the approval of the coordinator of women’s studies, up to 8 credits can be supplied by appropriate internship experiences.

Students develop a coherent program of study in consultation with their major adviser. Advisers are usually faculty with backgrounds or specialties related to women’s studies. When the program and plan are approved by the adviser, they are forwarded to the coordinator of women’s studies.

Courses with grades of D are not acceptable to meet the major requirements.

Minor Requirements
A minimum of 28 credits to include:
One course from:
WoSt 1101—Introduction to Women’s Studies
WoSt 1111—Women’s Studies Across the Curriculum
An additional 24 credits from the courses listed below are to be selected from at least three different disciplines.

Course Descriptions
Anth 2302f. Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 2302. Study of social statuses of women in Latin American countries and the cultural norms influencing these statuses. Topics include class differences and the varied interests of women of different classes and ethnicities, women’s movements, economics and political conditions, religion and women, etc.

Anth 2302Hf. Honors: Women in Latin America. (IP; 4 cr; prereq 1111 or Soc 1101, participation in Honors Program or #)
Same as Soc 2302H. In addition to regular coursework, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

Anth 2452s. Native American Women. (HDiv; 4 cr; prereq 1111 or Soc 1101 or #)
Same as Soc 2452. The role of Indian and mixed-blood women in a variety of North American Indian cultures, both traditional and contemporary, using ethnography, autobiography, life history, biography, and fiction. The interaction of Indian women and their cultures with the colonizing cultures of Western Europe and the United States.

Arth 3281s. Women and Art. (FA; 4 cr; prereq any 1xxx Arth class or jr status or #; not offered 2003-04)
A historical survey of women’s roles as creators and patrons of the visual arts in Western European and American societies, from antiquity to the present.

Arts 3000. Variable Topics in Studio Art. (ArtP; 1-4 cr; repeatable; prereq major or minor or #; offered when feasible)
Exploration of areas of particular interest or timeliness not covered by the regular curriculum.

Arts 3006. Feminist Art: A Studio Perspective. (ArtP; 4 cr; prereq major or minor or #)
The impact of the women’s movement of the 1970’s on contemporary art. Exploration of the notion of “women’s work” as a studio practice; the materials, methods, and issues that define feminist work.

Biol 3101s. Genetics. (Sci-L; 4 cr; prereq 2111 or #)
Principles and mechanisms of inheritance and variation, including cytological, organismal, and population genetics; mechanisms of evolution; and the genetic problems of humans. (two 65-min lect, one 120-min lab)

Econ 4101f. Labor Economics I. (HDiv; 2 cr; prereq 3201 or #; not offered 2003-04)
Wage and employment determination. Distribution of earnings and earnings inequality by race and sex. Labor supply applications.

Econ 4900fs. Variable Topics in Economic Research. (See specific topics for general ed categories; 2 cr; repeatable when topic changes; prereq 3201, 3202 or #)
Guided research sessions. Familiarize students with literature in the field. Research topics include case studies of international or national topics within the discipline or any significant economic issue. Students are required to make a formal presentation on their research topic and attend presentations by their peers.

Econ 4906f. Gender Issues. (HDiv; 2 cr; prereq 3201, 3202 or #)

Engl 3135f. Gothic Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, or 2212; not offered 2004-05)
The cultural origins of gothic literature in tension with the neoclassical values of 18th-century Britain and its persistent influence over the next two centuries (including its relationship to modern horror fiction and film). Emphasis on the ways gothic tales encode cultural anxieties about gender, class, and power.

Engl 3231. Women and Modernism: A Room of Her Own. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, or 2212; not offered 2003-04)
A study of formal and thematic innovations in fiction and poetry by women of the early 20th century. Includes Virginia Woolf, Gertrude Stein, Marianne Moore, and H.D.
Engl 3342. Chicanas/os and Latinas/os in Film and Literature. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212 or #; offered when feasible) Focus on how Chicanas/os and Latinas/os have been represented in Hollywood films and how Chicana/o and Latina/o writers, actors, and filmmakers have portrayed their people, culture, and various issues in films and writings.

Fren 1304. French Women Authors in Translation. (IP; 4 cr) Same as Hum 1304. French women’s movements during the 20th century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide some comparisons among European and global feminisms.

Fren 1304H. Honors: French Women Authors in Translation. (IP; 4 cr; prereq participation in Honors Program or #) Same as Hum 1304H. French women’s movements during the 20th century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide some comparisons among European and global feminisms.

Ger 3501s. Women’s Issues in Contemporary German Culture. (IP; 4 cr; prereq 3101 or 3102 or #; not offered 2004-05) The focus is on the German women’s movement during the twentieth century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in Germany and Austria. Short stories, essays, and poems document the evolution of feminist literary theory in German studies.

Hist 3000. Variable Topics in History. (Hist; 4 cr; repeatable when topic changes; offered when feasible) Study of a historical topic that transcends the traditional chronological or geographical categories. Possible topics include the history of historical writing, science, and Christianity.

Hist 3001f. Families Through the Prism of Memory, Genealogy, and History. (Hist; 4 cr) Historical and genealogical approach to the study of family.

Hist 3700. Variable Topics in the History of Women. (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or 1102 or 1301, WoSt 1101) Possible topics include a historical study of women and religion, a historical study of thought about American women, a cross-cultural study of the history of women.

Hist 3701s. Women and Religion: A History. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101) A historical discussion of women in non-Western and Western religions.

Hist 3702f. The History of Women in the West. (HDiv; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible) Focuses on the intellectual as well as political, social, and economic history of pre-European, western European, and American women.

Hist 3703s. 20th-Century European Women. (4 cr; prereq 1101 or 1102 or 1301, WoSt 1101) Social history of 20th-century European women.

Hist 3704. Women in the Middle Ages. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; not offered 2004-05) Examination of lives of women in Europe from about 500 to 1500.

Hist 3706. Women in Early Modern Europe. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; not offered 2004-05) Examination of lives of women in Europe from about 1350 to 1750.

Hum 1300. Variable Topics in French Literature and Culture. (See specific topics for general ed categories; 4 cr; repeatable when topic changes) This course is taught on a variety of topics such as modern French literature in translation and women authors in French. Offered as both a regular course and an honors course. Topic to be announced.

Hum 1304. French Women Authors in Translation. (IP; 4 cr; offered when feasible) Same as Hum 1304. French women’s movements during the twentieth century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide some comparisons among European and global feminisms.

Hum 1304H. Honors: French Women Authors in Translation. (IP; 4 cr; offered when feasible) Same as Hum 1304H. French women’s movements during the 20th century, the historical relationship of gender and class, and the lives of women from various ethnic backgrounds in France; the history of French women authors in a global context. Guest lecturers may, when appropriate, provide some comparisons among European and global feminisms.

Phil 2112s. Professional Ethics. (ECR; 4 cr) A critical examination of moral issues that arise in a person’s professional life. Possible topics include affirmative action, autonomy in the workplace, ethical issues in advertising, corporate responsibility, coercive wage offers, distributive justice, and sexual harassment. Issues concerning race, gender, and women are included in selected modules.

Phil 2141. Introduction to Analytic Feminism. (Hum; 4 cr) Applies an analytical approach to issues discussed in feminist writings. A mixture of lecture and discussion. Requirements include essay exams, papers, attendance, service-learning projects with related reflective journals, and class participation.

Pol 4503s. Women in Politics Worldwide. (IP; 4 cr; prereq 1201, 2101 or #; not offered 2003-04) Examines the ways gender influences politics throughout the world. Topics covered include the “gender gap” and voter turnout, women’s involvement in linkage organizations, such as parties and interest groups, and finally, policy outcomes regarding women in different kinds of political systems.

Psy 1071f. Human Sexuality. (SS; 4 cr) Survey of aspects of human sexuality, including intimacy and communication; male and female anatomy, physiology, and response; development of identity, sex role, and gender orientation; varieties of sexual
expression; pregnancy and childbirth; contraception and disease prevention; sexual coercion and abuse; sexual dysfunctions and their treatment.

**Psy 3051s. The Psychology of Women.** (HDiv; 4 cr; prereq 1051)
Feminist approach to the psychological study of women’s personality, behavior, development, language issues, motivation, work and family lives, sexuality, health and psychobiology, adjustment and therapy, and victimization experiences. Focuses on women of color, feminist research methodology, and feminist analysis of psychological theories of women.

**Psy 3221s. Behavioral Biology of Women.** (Sci; 2 cr; prereq 3211 or Biol 2111 or #; offered when feasible)
Exploration of proximate and ultimate influences on female behavior in human and nonhuman species. Sexual differentiation, gender differences in cognition, biological basis of sexual orientation, female sexual selection, and dominance.

**Psy 4896s. Field Experiences in Psychology.** (SS [if taken for 2 or more cr]; 1-4 cr; repeatable, only 4 cr may be applied to the BA or the Psy major; prereq #, which normally requires 4101 for work in psychiatric settings, 3302, 3401 or 3402 for work in schools; S-N only)
Individually arranged, supervised observation of and assistance with activities of professional psychologists in schools, clinics, hospitals, and other field settings.

**Soc 2101f. Systems of Oppression.** (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Patterns of group dominance, exploitation, and hate in the United States and globally. Emphasis on sexism, racism, and classism with some attention to other systems of oppression such as heterosexism, ageism, and ableism.

**Soc 2300f,s. Variable Topics in Latin American Cultures and Societies.** (IP; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #)
Same as Anth 2300. Use of archaeological, historical, and contemporary materials. Topics may include political institutions, media, popular culture, ethnicity, class, ecology, and cultures.

**Soc 2302s. Women in Latin America.** (IP; 4 cr; prereq 1101 or Anth 1111 or #)

**Soc 2302Hs. Honors: Women in Latin America.** (IP; 4 cr; prereq 1101 or Anth 1111, participation in Honors Program or #)
Same as Anth 2302H. In addition to regular course work, honors students are required to compose one creative research paper and acquire pedagogical skills through leading occasional class discussions.

**Soc 2452s. Native American Women.** (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Same as Anth 2452. The role of Indian and mixed-blood women in a variety of North American Indian cultures, both traditional and contemporary, using ethnography, autobiography, life history, biography, and fiction. The interaction of Indian women and their cultures with the colonizing cultures of Western Europe and the United States.

**Soc 3121s. Sociology of Gender.** (HDiv; 4 cr; prereq 1101 or Anth 1111 or #)
Relationships among sex, gender, and society. Gender as a factor in stratification systems, social interaction, and institutions such as the economy, the family, and religion.

**Soc 3200. Variable Topics in Social Stratification.** (HDiv; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #; offered when feasible)
Hierarchies of power, wealth, and prestige; analysis of various theories of stratification. Class, status, race, minorities (e.g., African Americans, American Indians), caste, and gender evaluated in terms of stratification.

**Soc 3250f,s. Variable Topics in Social Structure.** (See specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111 or #)
In-depth study of one topic in sociology such as African American social institutions, the economic and social elite, bureaucracy, urban communities, social control, population, and demography.

**Soc 3252s. Women in Muslim Society.** (IP; 4 cr; prereq 1101 or Anth 1111)

**Span 3500f. Variable Topics in Spanish Peninsular Literature.** (Hum; 4 cr; repeatable when topic changes; prereq 3002, 3101)
Topic to be announced. Students should demonstrate the ability to analyze literary texts, using the text as well as the aesthetic, political, historical, and philosophical context in which the work was produced. Students must also demonstrate the ability to discuss in class the ideas of the texts and the context, and they must write papers with grammatical precision and rigorous research.

**Spch 3203. African American and Female Discourse.** (Hum; 4 cr; prereq 2101 or #; not offered 2003-04)
Analysis and evaluation of situated discourse. Topics may include British and American public address, rhetorical practice of non-dominant cultural groups.

**Spch 3203. African American and Female Discourse.** (Hum; 4 cr; prereq 2101 or #)
Communication of women and African Americans: analysis of selected speeches, essays, and their contexts.

**WoSt 1101. Introduction to Women's Studies.** (HDiv; 4 cr; A-F only)
Biography of the sexes, gender, ideas/literature about women’s history, women’s economic/social conditions.

**WoSt 1111s. Women's Studies Across the Curriculum.** (HDiv; 4 cr)
Methodologies/theories of various disciplines in women’s studies.

**WoSt 3000. Variable Topics in Women’s Studies.** (See specific topics for general ed categories; 2-4 cr)
Offered by various women’s studies faculty in their specific topics for general ed categories; 4 cr; repeatable when topic changes; prereq 1101 or Anth 1111, participation in Honors Program or #)
Methodologies/theories of various disciplines in women’s studies.

**WoSt 4801. Culminating Experience in Women's Studies.** (HDiv; 4 cr; prereq completion of 32 cr in women’s studies)
Requires a portfolio collecting syllabi and documents from courses or internships in women’s studies; a paper reviewing the UMM women’s studies program; participation in a panel discussion. Students can work with any faculty teaching women’s studies courses.

**WoSt 4993f,s. Directed Study.** (1-5 cr; repeatable; prereq @)
Research in women’s studies.